



CALIFORNIA PUBLIC UTILITIES COMMISSION

PACIFIC GAS & ELECTRIC HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Final Initial Study/Mitigated Negative Declaration

April 2020



A.19-02-004

State Clearinghouse No. 2020029041

Prepared for:
California Public Utilities Commission

Prepared by:
Environmental Science Associates





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CHAPTER 1

Introduction

1.1 CEQA Process

Pursuant to the requirements of the California Environmental Quality Act (CEQA) and California Public Utilities Commission (CPUC) General Order (GO) 131-D, the CPUC prepared an Initial Study (IS) to evaluate potential environmental impacts of the application from Pacific Gas and Electric Company (PG&E) (A.19-02-004) for a Permit to Construct (PTC) the proposed Humboldt Bay-Humboldt No. 1 60kV Reconductoring Project (Project). The IS determined that the Project would not have a significant adverse effect on the environment, and the CPUC prepared a Draft Mitigated Negative Declaration (Draft MND).

This Final IS/MND has been prepared pursuant to CEQA and the CEQA Guidelines,¹ which outline all aspects of the preparation of the Draft IS/MND and its review, as well as the subsequent steps to preparing a Notice of Determination. This document incorporates comments received during the public review period, and contains responses by the Lead Agency (the CPUC) to those comments. The comments received resulted in minor changes to the IS contained in the Draft IS/MND, and some additional minor changes were made to improve the clarity of the Draft IS/MND. Those changes are reflected in Final IS/MND Chapter 2, Comments and Responses, and Chapter 3, Mitigation Monitoring, Compliance, and Reporting Program (MMCRP). Changes are shown using underline to denote new language, and ~~strike-through~~ to denote deleted language. The Final IS/MND provides corrections and clarity to certain facts set forth in the Draft IS/MND and, if necessary, ensures accuracy. No new significant environmental impacts are identified in this Final IS/MND. Additionally, no mitigation measures presented in the Draft IS/MND were deleted in this Final IS/MND.

The Final IS/MND is an informational document prepared by the CPUC to be considered by decision makers before approving or denying a proposed project. Consistent with CEQA Guidelines Section 15071, this Final IS/MND consists of the following:

- (a) A description of the Project (See Chapter 2, Project Description, of the Draft IS/MND in Appendix A);
- (b) The location of the Project and the name of Project components (See Chapter 2 of the Draft IS/MND in Appendix A);

¹ Public Resources Code Section 21000 et seq.; Title 14, California Code of Regulations, Chapter 3, Sections 15000 through 15387 and Appendices, accessible at <http://opr.ca.gov/ceqa/>.

- (c) A finding that the Project would not have a significant effect on the environment (See Section 1.3, below);
- (d) An IS documenting reasons to support this finding, updated to address comments received on the Draft IS/MND published February 12, 2020 (See Chapter 3 of the Draft IS/MND in Appendix A, as amended by Final IS/MND Chapter 2, Comments and Responses);
- (e) Mitigation Measures included in the Project to avoid potentially significant effects (see Final IS/MND Chapter 3, MMCRP).

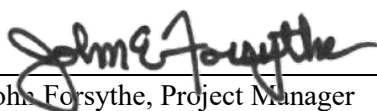
1.2 Public Review Process

On February 12, 2020, the CPUC filed a Notice of Completion (NOC) with the Governor's Office of Planning and Research (State Clearinghouse, SCH# 2020029041), published a Notice of Intent (NOI) to Adopt a Mitigated Negative Declaration, and released the Draft IS/MND for a 30-day public review period. The Draft IS/MND was distributed to federal, State, and local agency representatives, and the NOI was distributed to property owners within 300 feet of the Project, as outlined in Appendix A of the Draft IS/MND. A legal notice was published on February 12, 2020 in the Eureka Times-Standard announcing the availability of the Draft IS/MND for public review in compliance with CEQA.

In accordance with Section 15105(b) of the CEQA Guidelines the public review and comment period began on February 12, 2020, and ended on March 13, 2020. The CPUC established a Project voice mail phone number (707) 796-7011, email address (CPUCHumboldtReconductoring@esassoc.com), and Project web site (<https://www.cpuc.ca.gov/environment/info/esa/humboldt/index.html>) to enable the public to ask questions, provide comments, and obtain additional information on the Project analyzed in the Draft IS/MND. Copies of all written comments received on the Draft IS/MND are provided in Chapter 2 of this Final IS/MND.

1.3 Findings

Based on the analysis conducted in this Final IS/MND, the CPUC has found, on the basis of the whole record before it (including all Project application materials, the Draft IS/MND, comments received, and other materials), that there is no substantial evidence that the Project would have a potential significant environmental impact. Substantial evidence includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts. Argument, speculation, and unsubstantiated opinion or narrative does not constitute substantial evidence (Pub. Res. Code §21080(e); CEQA Guidelines §15064(f)(5)). Project features and mitigation measures identified in the Final IS/MND to be required as a condition of certification of approval for the proposed Project would avoid or reduce all of the impacts to a less-than-significant level.


John Forsythe, Project Manager

April 17, 2020
Date

Energy Division
California Public Utilities Commission

CHAPTER 2

Comments and Responses

2.1 Introduction

This chapter includes a copy of the PG&E comment letter received during the public review period on the Draft IS/MND for the Humboldt Bay – Humboldt #1 60 kV Reconductoring Project, Application A.19-02-004, and the responses to those comments.

2.2 List of Comment Letters Received

One comment letter from PG&E was received on the Draft IS/MND (herein after referred to as IS/MND).

2.3 Responses to Comments

This section contains responses to all of the substantive comments received on the IS/MND during the public review period from February 12, 2020 through March 13, 2020. Each substantive comment was assigned a comment number (e.g., A-1, A-2, etc.). The comment letter is reproduced in its entirety followed by the responses to each comment within the letter. The comments received resulted in minor revisions to the IS/MND, as addressed in this section.

2.4 Revisions to the IS/MND

As a result of comments, some changes have been made to the previously published text of the IS/MND. Changes include: minor corrections made to improve writing clarity, grammar, and consistency; clarifications, additions, or deletions resulting from specific responses to comments; and text changes to update information in the IS/MND. These text revisions are included following each response. The specific additions and deletions use the following conventions:

- Text deleted from the IS/MND is shown in ~~strike-out text~~.
- Text added to the IS/MND is shown in underline text.

Cory Barringhaus

From: Rice, Erin <E1RJ@pge.com>
Sent: Friday, March 13, 2020 12:52 PM
To: Forsythe, John (John.Forsythe@cpuc.ca.gov); Cory Barringhaus
Cc: Michael Manka; jblanchard@rudderlawgroup.com; Janet Liver (Janet.Liver@erm.com)
Subject: Humboldt Bay-Humboldt #1 60 kV Reconductoring Project - PG&E Minor Comments
Attachments: Fig 2-2 PG&E edits -Draft ISMND .pdf

Dear John and Cory:

Thank you for the opportunity to review the public draft IS/MND for the Humboldt Bay-Humboldt #1 60kV Reconductoring Project. PG&E has the following minor comments on the CEQA document:

1. Page ES-1, Executive Summary Introduction (1st paragraph, 6th line) – The back tie is to Humboldt Bay Substation, not Humboldt Bay Power Plant. A-1
2. Page ES-1, Project Description – The Project travels through the City of Eureka as well as through Humboldt County. A-2
3. Page ES-26 and Page 5-26, Mitigation Measure NOI-1c: Construction Noise Management Plan – The word "Plan" should be removed to update the measure to be consistent with page 3.13-13. A-3
4. Page 5-14, Table 5-1, Mitigation Monitoring, Reporting and Compliance Program (MMRCP) – Needs to include APM BIO-12: Minimize Impact to Marbled Murrelet (see pages 2-37 and 3.4-28). A-4
5. Figures 2-2 through 2-5: We suggest making the following changes to these figures to more accurately reflect the project description:

A. The shading on Figures 2-2 and 2-5 currently obscures proposed matting at four locations (three on Figure 2-2 and one on Figure 2-5) . See the attached Figures indicating the exact locations.

B. Please revise the legend in Figure 2-2 to say "temporary matting" rather than "timber matting." The actual matting could include "temporary matting or other protection measures (e.g. rig mats, timber roads, plating, or tracked vehicles [preferably rubber tracked]), as indicated in APM BIO-9 and Page 2-20 of IS/MND.

C. Poles at four locations on Figure 2-3 will be replaced with light-duty steel poles (LDS poles), not wood. See the locations and clarifications in the attached Figure.

D. The lines coming out from Humboldt Bay Substation in Figure 2-2 reflect the existing lines and not the proposed project. See the attached Figure with further clarifications.

E. Please include the following qualifier on all project description figures, in particular, Figures 2-2 through 2-5: "Subject to Final Design and Engineering" as the detailed information depicted on the figure could change during final design (e.g. exact location of the replacement pole, or a change of pole type).

A-5
6. Page 2-21, please add the word "approximately" when describing the diameter and depth of the LSTs. A-6
7. Page 2-22, Installing Tubular Steel Poles (TSPs) (1st sentence) – please add "or micropiling" to construction technique that could be used to install TSPs. A-7

Comment Letter A

8. Page 3.7-10 - The IS/MND suggests that the structures would be subject to the California Building Code, which is not correct. PG&E's transmission line poles and structures are regulated under the CPUC's General Order 95, not the California Building Code.

A-8

9. As discussed on February 26, we look forward to meeting with the CPUC to review the implementation of the MMRCP. We note that in Table 5-1 there is a monitoring/reporting requirement to coordinate with CDFW regarding establishment of nesting buffers (APM BIO-6). As indicated during our February call, the document "Nesting Birds: Species-Specific Buffers for PG&E Activities" (Appendix C of the Proponent's Environmental Assessment) was developed in coordination with CDFW. Therefore, further coordination with CDFW on implementation of these buffers is unnecessary. We look forward to having a more in-depth discussion of the implementing actions, monitoring/reporting requirements, and timing of each of the measures to finalize the MMRCP, which could lead to additional clarifications in the table to facilitate compliance at the time of construction.

A-9

Thanks again for all of your hard work on this project!

Erin

Erin Rice
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Response to Letter A – PG&E

Response A-1: The second sentence of the first paragraph on page ES-1 is revised as follows:

PG&E proposes to reconductor approximately 7.8 miles of single circuit power lines to maintain electric transmission system reliability in the City of Eureka and serve as critical back tie between the Humboldt Bay ~~Power Plant~~ Substation and the Humboldt Substation, pursuant to CPUC General Order (GO) 131-D.

Response A-2: The third sentence of the last paragraph on page ES-1 is revised as follows:

From Humboldt Bay Substation, the Project would travel northeast through unincorporated Humboldt County and the City of Eureka, then back through Humboldt County, terminating at Humboldt Substation located east of Eureka near Myrtle Avenue.

Response A-3: Mitigation Measure NOI-1c in Table ES-2 on page ES-26 and in Table 5-1 on page 5-26 is revised as follows:

Mitigation Measure NOI-1c: Construction Noise Management ~~Plan~~

Response A-4: The following APM is added to Table 5-1 on page 5-14:

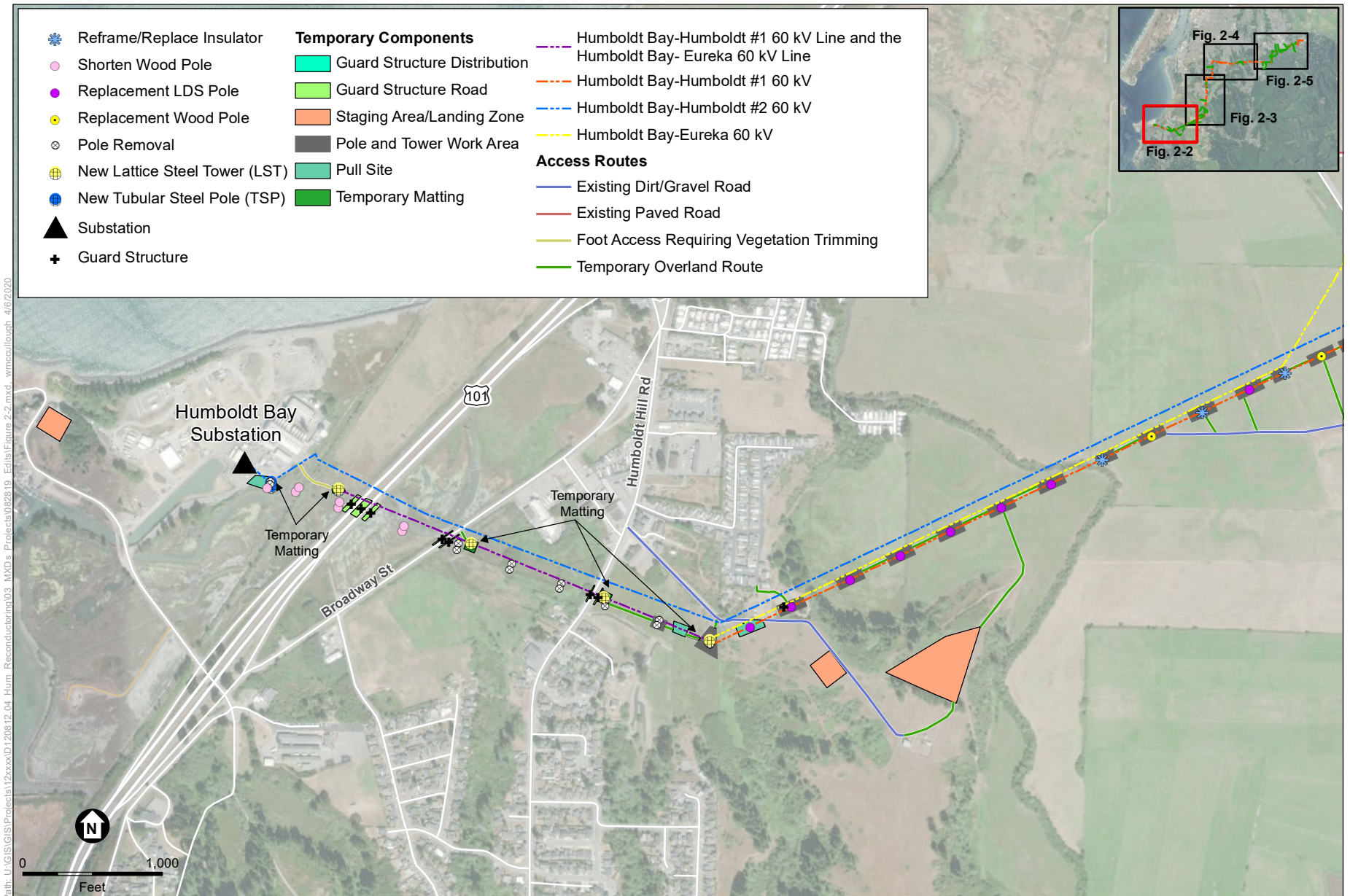
APM BIO-12: Minimize Impact to Marbled Murrelet. Helicopter work will not commence until at least two hours after sunrise and will end at least one hour before sunset to avoid the potential to interrupt peak daily feeding cycles for marbled Murrelet.

Response A-5: Figures 2-2 through 2-5 have been updated and revised versions are shown on the following pages.

Response A-6: As indicated in the third column of Table 2-2 on page 2-11, dimensions of proposed LSTs as well as other proposed structures are approximate. Therefore, the request to clarify the diameter and depth of LSTs on page 2-21 is unnecessary.

Response A-7: The first sentence under “Installing Tubular Steel Poles” on page 2-22 is revised as follows:

The foundations for the two TSPs would be installed using the drilled pier technique or micropiling due to the presence of groundwater and to reduce ground disturbance.

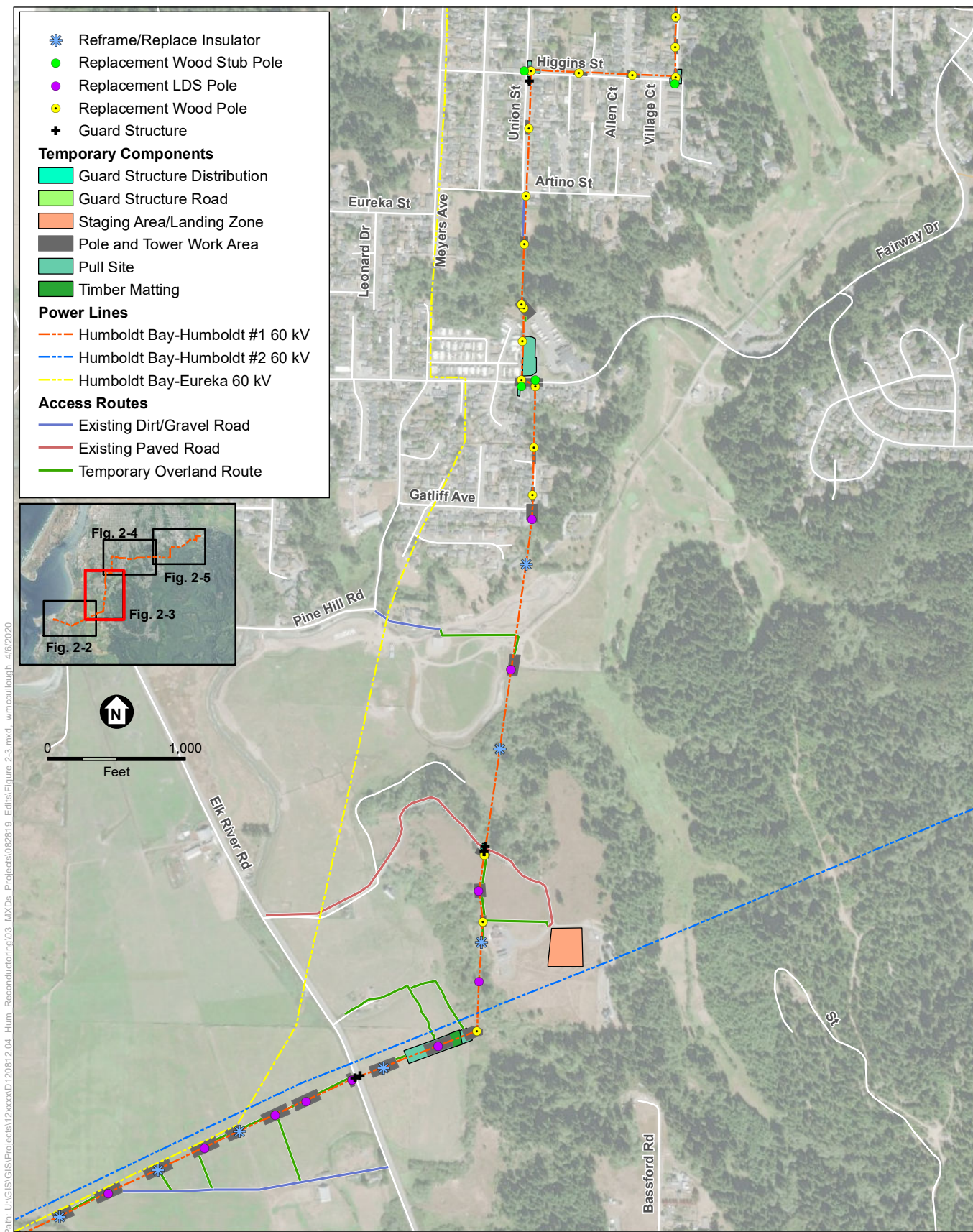


SOURCE: PG&E, 2019

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 2-2

Proposed Project: Detailed Alignment (Panel 1 of 4)



SOURCE: PG&E, 2019

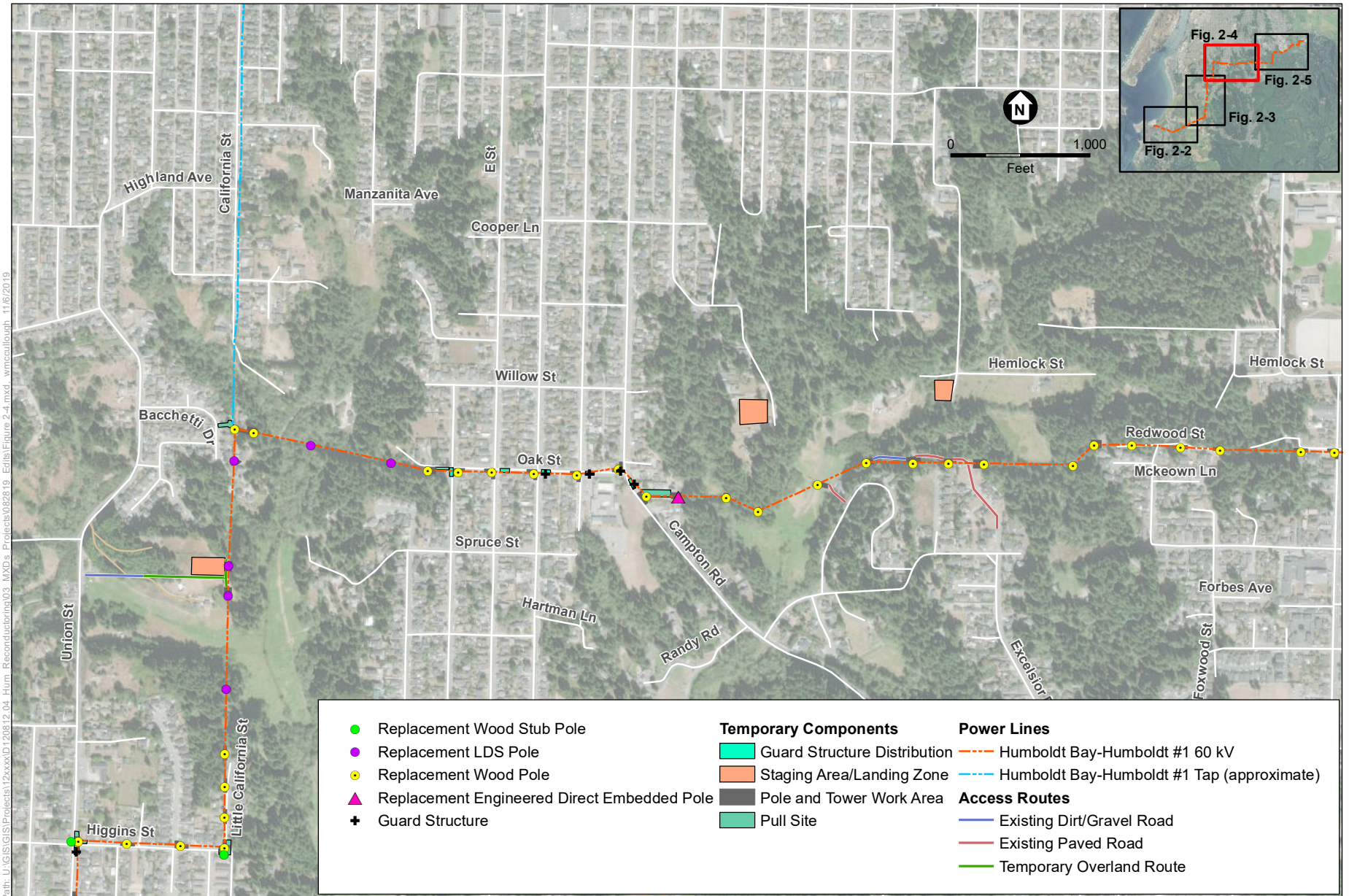
HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 2-3

Proposed Project: Detailed Alignment (Panel 2 of 4)



Subject to Final Design and Engineering

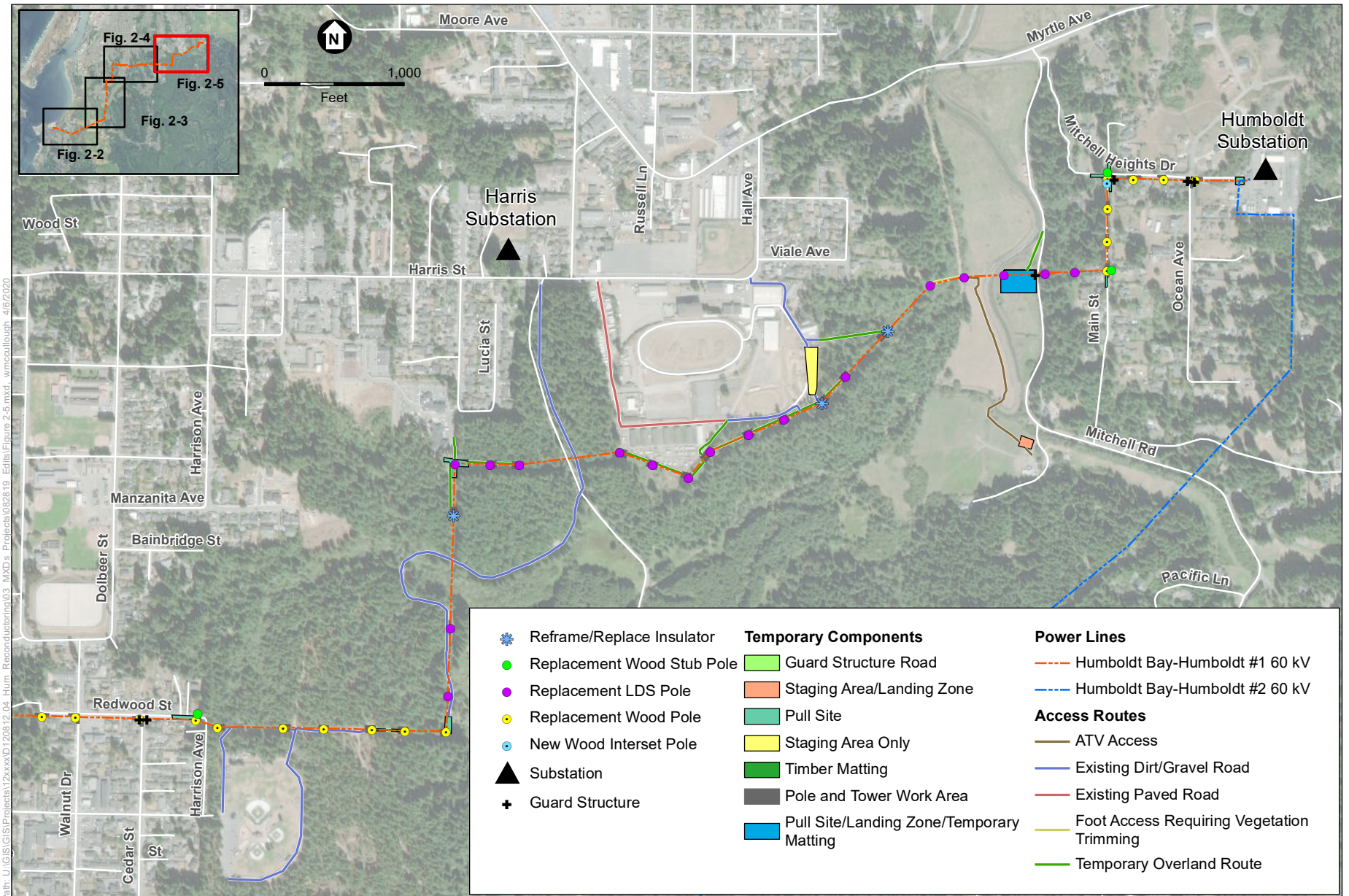


SOURCE: PG&E, 2019

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 2-4

Proposed Project: Detailed Alignment (Panel 3 of 4)



SOURCE: PG&E, 2019

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 2-5

Proposed Project: Detailed Alignment (Panel 4 of 4)

Response A-8: The first paragraph on page 3.7-10 is revised as follows:

~~While the Project does not propose to erect any buildings or structures that would be occupied by people, the Project remains under the purview of the CBC because the towers, poles, foundations, retaining walls, etc., associated with this Project are considered structures. The California Health and Safety Code defines a “structure” as including any piece of work artificially built or composed of parts joined together in some definite manner (Health and Safety Code §18908). Title 24 also states that the construction, installation, alteration, removal, repair, or replacement of any electrical system is regulated by CBC.~~

Response A-9: The Monitoring/Reporting Requirements of APM BIO-6: Nesting Bird Impact Avoidance and Protection in Table 5-1 on page 5-12 is revised as follows:

~~PG&E biologist to coordinate with CDFW regarding establishment of nesting buffers and allowable construction activities within nesting bird exclusion zones.~~

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CHAPTER 3

Mitigation Monitoring, Compliance, and Reporting Program

3.1 Summary of Revisions to the MMCRP

This chapter includes an updated version of Draft IS/MND Table 5-1, Mitigation Monitoring, Compliance, and Reporting Program for the Humboldt Bay – Humboldt #1 60 kV Reconductoring Project. The purpose of the updated table in this chapter is to provide a single comprehensive list of impacts, mitigation measures, Applicant Proposed Measures (APMs), monitoring and reporting requirements, and timing of implementation. Therefore, the text revisions and additions to impacts, mitigation measures, and APMs that are shown in Chapter 2 of this Final MND are shown in final form in this chapter and not depicted in underline and strike out format. Following review of public comments received during the public review period, the CPUC has determined that no new significant environmental impacts are identified in this Final MND. Additionally, no mitigation measures presented in the Draft IS/MND were deleted in this Final MND.

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PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM

Pacific Gas and Electric's Humboldt Bay - Humboldt #1 60kV Reconductoring Project (APPLICATION NO. A.19-02-004)

Introduction

This document describes the mitigation monitoring, compliance, and reporting program (MMCRP) for ensuring the effective implementation of the mitigation measures required for the California Public Utilities Commission (CPUC) approval of the Pacific Gas and Electric's (PG&E) application to construct, operate and maintain the Humboldt Bay-Humboldt #1 60kV Reconductoring Project (Project). The MMCRP includes all measures proposed by PG&E (APMs), and all mitigation measures identified by the CPUC to reduce potentially significant impacts to less than significant. All APMs and mitigation measures are presented in **Table 3-1** provided at the end of this MMCRP.

If the Project is approved, this MMCRP would serve as a self-contained general reference for the Mitigation Monitoring, Compliance, and Reporting Program adopted by the CPUC for the Project. If and when the Project is approved by the Commission, the CPUC will compile the Final Plan from the Mitigation Monitoring Program in the Final Mitigated Negative Declaration (MND), as adopted.

California Public Utilities Commission – MMCRP Authority

The California Public Utilities Code in numerous places confers authority upon the CPUC to regulate the terms of service and the safety, practices, and equipment of utilities subject to its jurisdiction. It is the standard practice of the CPUC, pursuant to its statutory responsibility to protect the environment, to require that mitigation measures stipulated as conditions of approval are implemented properly, monitored, and reported on. In 1989, this requirement was codified statewide as Section 21081.6 of the Public Resources Code. Section 21081.6 requires a public agency to adopt a reporting or monitoring program when it adopts a mitigated negative declaration for a project that could have potentially significant environmental effects. California Environmental Quality Act (CEQA) Guidelines Section 15097 was added in 1999 to further clarify agency requirements for mitigation monitoring and reporting.

The purpose of a MMCRP is to ensure that measures adopted to mitigate or avoid significant impacts of a project are implemented. The CPUC views the MMCRP as a working guide to facilitate not only the implementation of mitigation measures by the project proponent, but also the monitoring, compliance, and reporting activities of the CPUC and any monitors it may designate.

The CPUC will address its responsibility under Public Resources Code Section 21081.6 when it takes action on PG&E's application. If the CPUC approves the application, it also will adopt a MMCRP that includes the mitigation measures ultimately made conditions of approval by the CPUC. Because the CPUC must decide whether or not to approve the PG&E application and because the application may cause either direct or reasonably foreseeable indirect effects on the environment, CEQA requires the CPUC to consider the potential environmental impacts that could occur as the result of its decision and to consider mitigation for any identified significant environmental impacts.

If the CPUC approves PG&E's application for authority to reinforce the electric transmission and distribution system, PG&E would be responsible for implementation of all of the Applicant Proposed Measures (APM) and all mitigation measures governing the construction, operation, and maintenance of the Project. Though other federal, State, and local agencies would have permit and approval authority over some aspects of the Project, the CPUC would continue to act as the lead agency for monitoring compliance with all mitigation measures required by the adopted IS/MND. All approvals and permits obtained by PG&E would be submitted to the CPUC prior to commencing the activity for which the permits and approvals were obtained.

In accordance with CEQA, the CPUC reviewed the impacts that would result from approval of the application. The activities considered include replacement of 7.8 miles of existing bare single circuit conductors and insulators on the Humboldt Bay to Humboldt #1 (HB-H#1) 60kV Power Line (reconductoring) between the existing Humboldt Bay and Humboldt Substations. The Project would also include relocation of 0.6 miles of Humboldt Bay to Eureka (HB-E) 60kV Power Line to a new tubular steel pole (collocated with HB-H#1), and relocation of Humboldt Bay to Humboldt #2 Power Line (including pole removal and relocation) onto the new tubular steel pole on the HB-E Power Line. Reconductoring would involve removal and/or replacement of power poles, placement of new poles and lattice steel towers, shortening of poles, insulators, and other infrastructure upgrades.

The CPUC review concluded that implementation of the Project would not result in any significant unmitigable impacts. All potential impacts would be mitigated to less-than-significant levels or would be less than significant. PG&E has agreed to incorporate all the CPUC-recommended mitigation measures into the Project. The CPUC has included the stipulated mitigation measures as conditions of approval of the application and has circulated an IS/proposed MND for public review.

Because the CPUC must decide whether or not to approve the PG&E application and because the application may cause either direct or reasonably foreseeable indirect effects on the environment, CEQA requires the CPUC to consider the potential environmental impacts that could occur as the result of its decisions and to consider mitigation for any identified significant environmental impacts.

The attached IS/MND presents and analyzes potential environmental impacts that would result from construction, operation, and maintenance of the Project, and recommends mitigation measures as appropriate. Based on the IS/MND, approval of the application would have no impact or less than significant impacts in the following areas:

- Aesthetics
- Agriculture and Forestry Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Transportation
- Utilities and Service Systems
- Wildfire

The IS/MND indicates that approval of the application would result in potentially significant impacts in the areas listed below, and so identifies APMs and mitigation measures that have been accepted by PG&E to reduce the significance below established thresholds.

- Air Quality
- Biological Resources
- Cultural Resources
- Noise
- Tribal Cultural Resources

Roles and Responsibilities

As the lead agency under CEQA, the CPUC is required to monitor the Project to ensure that the required mitigation measures and all APMs are implemented, as described in the IS/MND. The CPUC will be responsible for ensuring full compliance with the provisions of this MMCRP and has primary responsibility for implementation of the monitoring program. The purpose of the monitoring program is to document that the mitigation measures and APMs required and relied upon by the CPUC are implemented and that mitigated environmental impacts are reduced to a less-than-significant level. The CPUC has the authority to halt any activity associated with the Project if the activity is determined to be a deviation from the approved Project or the adopted APMs and mitigation measures.

The CPUC may delegate duties and responsibilities for monitoring to other mitigation monitors or consultants as deemed necessary. The CPUC will ensure that the person(s) delegated any duties or responsibilities are qualified to monitor compliance.

The CPUC, along with its mitigation monitor, will ensure that any variance process, which will be designed specifically for the Project, or deviation from the procedures identified under the monitoring program is consistent with CEQA requirements; no Project variance will be approved by the CPUC if it creates new significant environmental impacts. As defined in this MMCRP, a variance should be strictly limited to minor Project changes that will not trigger other permit requirements, that does not increase the severity of an impact or create a new impact, and that clearly and strictly complies with the intent of the mitigation measure. A change to the Project that has the potential for creating significant environmental effects will be evaluated to determine whether

supplemental CEQA review is required. Any proposed deviation from the approved Project and adopted mitigation measures, including correction of such deviation, shall be reported immediately to the CPUC and the mitigation monitor assigned to the construction for their review and CPUC approval. In some cases, a variance also may require approval by a CEQA responsible agency.

Enforcement and Responsibility

The CPUC is responsible for enforcing the procedures for monitoring through the environmental monitor. The environmental monitor shall note problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the CPUC. The CPUC has the authority to halt any construction, operation, or maintenance activity associated with the Project if the activity is determined to be a deviation from the approved Project or adopted APMs or mitigation measures. The CPUC may assign its authority to its environmental monitor.

Mitigation Compliance Responsibility

PG&E is responsible for successfully implementing all of the adopted APMs and mitigation measures in this MMCRP. The MMCRP contains criteria that define whether mitigation is successful. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Additional mitigation success thresholds will be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

PG&E shall inform the CPUC and its mitigation monitor in writing of any mitigation measures that are not or cannot be successfully implemented. The CPUC in coordination with its mitigation monitor will assess whether alternative mitigation is appropriate and specify to PG&E the subsequent actions required.

Dispute Resolution Process

The MMCRP is expected to reduce or eliminate potential disputes between CPUC staff and the applicant concerning implementation of the adopted mitigation measures. Issues should first be addressed informally at the field level between the CPUC Environmental Monitoring Team and the PG&E Environmental Compliance Team with questions that may be raised to the PG&E Project Manager or Construction Manager, as necessary. Should the issue not be resolved at the field level, the following procedure will be observed for dispute resolution between CPUC staff and the applicant:

- Disputes and complaints should be directed first to the CPUC's designated Project Manager for resolution. The Project Manager will attempt to resolve the dispute.
- Should this informal process fail, the CPUC Project Manager may initiate enforcement or compliance action to address deviations from the approved Project or MMCRP.

General Monitoring Procedures

Mitigation Monitor

Many of the monitoring procedures will be conducted during the construction phase of the Project. The CPUC and the mitigation monitor are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with PG&E. To oversee the monitoring procedures and to ensure success, the mitigation monitor assigned to the construction must be on site during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The mitigation monitor is responsible for ensuring that all procedures specified in this MMCRP are followed.

Construction Personnel

A key feature contributing to the success of mitigation monitoring will be obtaining the full cooperation of construction personnel and supervisors. Many of the mitigation measures and APMs require action on the part of the construction supervisors or crews for successful implementation. To ensure success, the following actions, detailed in specific mitigation measures included in this MMCRP, will be taken:

- PG&E shall require all contractors to comply with the conditions of Project approval, including all applicable APMs and mitigation measures.
- One or more pre-construction meetings will be held to inform all and train construction personnel about the requirements of the MMCRP.
- A written summary of mitigation monitoring procedures will be provided to construction supervisors for all APMs and mitigation measures requiring their attention.

General Reporting Procedures

Site visits and specified monitoring procedures performed by other individuals will be reported to the mitigation monitor assigned to the construction. A monitoring record form will be submitted to the mitigation monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the mitigation monitor. A checklist will be developed and maintained by the mitigation monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The mitigation monitor will note any problems that may occur and take appropriate action to rectify the problems. PG&E shall provide the CPUC with written quarterly reports of the Project, which shall include progress of construction, resulting impacts, mitigation implemented, and all other noteworthy elements of the Project. Quarterly reports shall be required as long as mitigation measures are applicable.

Public Access to Records

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available for public inspection by the CPUC on request. The CPUC and PG&E will develop a filing and tracking system.

Condition Effectiveness Review

In order to fulfill its statutory mandates to mitigate or avoid significant effects on the environment and to design a MMCRP to ensure compliance during project implementation (Pub. Res. Code §21081.6):

- The CPUC may conduct a comprehensive review of conditions which are not effectively mitigating impacts at any time it deems appropriate, including as a result of the Dispute Resolution procedure outlined above; and
- If in either review, the CPUC determines that any conditions are not adequately mitigating significant environmental impacts caused by the project, or that recent proven technological advances could provide more effective mitigation, then the CPUC may impose additional reasonable conditions to effectively mitigate these impacts.

These reviews will be conducted in a manner consistent with the CPUC's rules and practices.

Mitigation Monitoring, Compliance, and Reporting Program

The table attached to this MMCRP presents a compilation of the adopted APMs and mitigation measures in the IS/MND. The purpose of the table is to provide a single comprehensive list of impacts, mitigation measures, adopted APMs, monitoring and reporting requirements, and timing. PG&E proposed APMs to minimize environmental impacts associated with implementation of the Project. In some instances, those APMs have been superseded by CPUC-recommended mitigation measures, as described in the IS/MND. The table below identifies only those APMs that have not been superseded and will be implemented as part of the Project.

TABLE 3-1
MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Aesthetics				
Impact 3.1.a: Have a substantial adverse effect on a scenic vista.	<p>APM AE-1: Nighttime lighting to minimize potential visual impacts of construction activity. In the unlikely event that nighttime construction activities are necessary, measures such as use of non-glare or hooded fixtures and directional lighting will be used to reduce spillover into areas outside the construction site and minimize the visibility of lighting from off-site locations wherever feasible.</p> <p>APM AE-2: Construction Cleanup. Construction debris will be picked up regularly from construction areas. The appearance of disturbed land areas will be restored through implementation of re-contouring and/or re-vegetation.</p> <p>APM AE-4: Design and operation of staging areas to minimize potential visual impacts. Security lighting may be installed at staging areas including helicopter sites. If nighttime security lighting is required in close proximity to sensitive locations such as existing residences, it will be directional and focused to minimize potential spillover or glare with respect to areas outside the staging area, and non-glare or hooded fixtures may be utilized.</p>	PG&E and its contractors to implement measure as defined	CPUC monitor to inspect compliance.	During construction of the project.
Impact 3.1.c: Substantially degrade the existing visual character or quality of public views of the site and its surroundings, or since the project is in an urbanized area, whether it would conflict with applicable zoning and other regulations governing scenic quality	Implement APMs AE-2 and AE-4 (listed under Impact 3.1.a).	PG&E and its contractors to implement measure as defined	CPUC monitor to inspect compliance.	During construction of the project.
Impact 3.1.d: Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area	<p>Implement APMs AE-1, AE-2, and AE-4 (listed under Impact 3.1.a) and APM AE-3</p> <p>APM AE-3: Use of Galvanized Finish on LDSs, TSPs, and LSTs. Use of a galvanized finish that will weather to a dull, non-reflective patina on new steel poles and lattice towers will reduce potential for a new source of glare resulting from introduction of project elements.</p>	PG&E and its contractors to implement measure as defined	CPUC monitor to inspect compliance.	During construction of the project.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Agriculture and Forestry Resources				
Impact 3.2.e: Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use	Implement APM AE-2 (listed under Impact 3.1.a).	PG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance.	During construction of the project.
Air Quality				
Impact 3.3.a: Conflict with or obstruct implementation of the applicable air quality plan	APM AQ-1: Minimize Fugitive Dust. PG&E will minimize fugitive dust during construction by implementing the following measures: <ul style="list-style-type: none"> • Reduce the amount of the disturbed area where possible. • Use water trucks or sprinkler systems in dry weather in sufficient quantity to prevent airborne dust from leaving the site. • Implement dust control measures as soon as possible following completion of any soil-disturbing activities. • Establish a policy that vehicle speed for all construction vehicles is not to exceed 15 miles per hour on any unpaved surface. • Water all active construction areas (including storage piles) as needed to suppress dust. Base the frequency on the type of operation and the soil and wind exposure. • Cover or maintain at least 2 feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. • Sweep adjacent public roads if visible soil material is carried out from a work site. 	PG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.
Impact 3.3.b: Violate any air quality standard or result in a cumulatively considerable net increase in an existing or projected air quality violation	Implement APM AQ-1 (listed under Impact 3.3.a) and Mitigation Measure AQ-1 Mitigation Measure AQ-1: Supplemental Best Management Practices. The following measures shall be implemented during the construction phase by PG&E and/or its construction contractors: <ul style="list-style-type: none"> • All exposed surfaces that could cause dust (e.g., undeveloped parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered one to two times per day during dry conditions. 	PG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Air Quality (cont.)				
Impact 3.3.b (cont.)	<ul style="list-style-type: none"> All haul trucks transporting soil, sand, or other loose material off-site shall be covered. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Construction workers will be trained on this requirement during tailboard construction trainings. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. Post a publicly visible sign with the telephone number and person to contact at PG&E regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations. 	PG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.
Impact 3.3.c: Expose sensitive receptors to substantial pollutant concentrations	<p>Implement APM AQ-1 (listed under Impact 3.3.a) and APM GHG-1</p> <p>APM GHG-1: Minimize GHG Emissions.</p> <ul style="list-style-type: none"> Maintain construction equipment in proper working conditions in accordance with PG&E standards. Minimize unnecessary construction vehicle idling time. The project will apply a "common sense" approach to vehicle use, so that idling is reduced as far as possible below the maximum of 5 consecutive minutes allowed by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Maintain construction equipment in proper working condition in accordance with PG&E standards. Minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible. Portable diesel-fueled construction equipment with engines of 50 horsepower or larger and manufactured in 2000 or later will be registered under the CARB Statewide Portable Equipment Registration Program. Minimize welding and cutting by using compression of mechanical applications where practical and within standards. Encourage the recycling of construction waste where feasible 	PG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources				
Impact 3.4.a: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service	APM BIO-1: Development and implementation of a Worker Environmental Awareness Program. A qualified biologist will conduct an environmental awareness program for all on-site construction personnel before they begin work on the project. Training will include a discussion of the avoidance and minimization measures that are being implemented to protect biological resources as well as the terms and conditions of project permits. Training will include information about the federal and state Endangered Species Acts and the consequences of noncompliance with these acts. Under this program, workers shall be informed of the presence, life history, and habitat requirements of all special-status species that may be affected in the project area, and about state and federal laws protecting nesting birds, wetlands, and other water resources. An educational brochure will be produced for construction crews working on the project. Color photos of special-status species will be included, as well as a discussion of relevant APMs and specific avoidance or minimization measures for special-status species and habitats.	PG&E and its contractors to implement measure as defined	CPUC biological monitor to inspect compliance.	Prior to construction and during all phases of construction activities.
	APM BIO-2: General Resource Protection Measures. This APM consists of the following components: <ul style="list-style-type: none"> • <i>Litter and trash management.</i> All food scraps, wrappers, food containers, cans, bottles, and other trash will be removed from the site daily. • <i>Parking.</i> Vehicles and equipment will be parked on pavement, existing roads, developed areas, or approved construction work areas. • <i>Route and speed limitations.</i> Vehicles will be confined to established roadways or previously disturbed roadways and pre-approved access roads, overland routes, and construction work areas. Access routes and temporary construction work areas will be limited to the minimum necessary to achieve the project goals. Vehicular speeds will be limited to 15 miles per hour on unpaved roads • <i>Maintenance and refueling.</i> All equipment will be maintained to avoid leaks of automotive fluids such as fuels, solvents, or oils. All refueling and maintenance of vehicles and other construction equipment will be restricted to designated staging areas located at least 100 feet from any down-gradient aquatic habitat, unless otherwise isolated from habitat by secondary containment. Proper spill prevention and cleanup equipment will be maintained in all refueling areas. • <i>Hazardous materials spills.</i> Emergency spill response and cleanup kits will be readily available for immediate containment and cleanup of an accidental spill. Construction crews will be trained in safe handling of hazardous materials and cleanup responsibilities. Any spills into aquatic habitat will be reported to the CPUC, USACE, State Water Resources Control Board, and the California Coastal Commission (if within the coastal zone) within 24 hours. 	PG&E and its contractors to implement measure as defined	CPUC biological monitor to inspect compliance	Prior to onset of construction and during all phases of construction activities.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources (cont.)				
Impact 3.4.a (cont.)	<ul style="list-style-type: none"> <i>Pets and firearms.</i> No pets, hunting, open fires (such as barbecues), or firearms will be permitted at the project site. <i>Reporting and communication.</i> The PG&E project biologist will be responsible for immediately reporting any capture and relocation, or inadvertent harm, entrapment, or death of a federally or state listed species under ESA or CESA, respectively to the USFWS and CDFW, respectively. <i>Restore temporarily disturbed habitats.</i> All habitat areas for special-status species that are temporarily disturbed as a result of project activities will be restored upon completion of construction. Disturbed areas will be restored to pre-project conditions in coordination with land owners and in compliance with resource agency permit conditions. Tidal marsh areas will be allowed to passively restore or as otherwise required by resource agency permit requirements. <i>Erosion control materials.</i> Only tightly woven netting or similar material will be used for all geo-synthetic erosion control materials such as coir rolls and geo-textiles. No plastic monofilament matting will be used. <i>Minimize grading and vegetation removal along access roads and construction work areas, to the extent feasible.</i> PG&E will only trim, clear, or remove vegetation as necessary to establish the access routes and allow equipment use. Trees will be directionally felled away from sensitive biological resource areas, and if that is not possible, removed in sections. Damage to adjacent trees will be avoided to the extent possible. <i>Weed management.</i> Vehicles and construction equipment will be cleaned of mud and dirt on site at a PG&E wash facility or otherwise approved wash-down location as needed to minimize transport of weed plant parts or seed. Vehicles will also be cleaned at the completion of the project or when off-road use for that vehicle has been completed. 			
	<p>APM BIO-3: Conduct Preconstruction Survey(s) for Special-Status Species and Sensitive Biological Resource Areas. A qualified biologist will conduct pre-construction survey(s) in areas identified in the BRTR as having habitat for special-status species and sensitive biological resource areas, either during the appropriate phenological period for plants or within 7 days prior to construction activities for wildlife. If any special-status species is encountered during the pre-construction survey(s), the PG&E project biologist will be contacted immediately. If any special-status species are found nearby but outside the construction work area, they will not be disturbed. If recommended by the biologist, a temporary silt-fence barrier may be installed to prevent special-status species from entering the construction work area(s) during project activities.</p>	PG&E and its contractors to implement measure as defined.	CPUC biological monitor to inspect compliance.	Within 7 days prior to construction and during all phases of construction activities.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources (cont.)				
Impact 3.4.a (cont.)	APM BIO-4: Identification and Marking of Sensitive Biological Resource Areas. Sensitive biological resources (e.g., special-status plants, wetlands) in or adjacent to construction work areas identified during the pre-construction surveys, will be clearly marked in the field and on project maps. Such areas will be avoided during construction to the extent practicable.	PG&E and its contractors to implement measure as defined.	CPUC biological monitor to inspect compliance.	Within 30 days prior to construction.
	APM BIO-5: Biological Monitor On-Site during Construction Activities in Sensitive Biological Resource Areas. A qualified biologist will be onsite during ground-disturbing construction activities in sensitive biological resource areas identified in APM BIO-4 above unless the area has been protected by barrier fencing to protect sensitive biological resources and previously cleared by the qualified biologist. The qualified biologist will ensure implementation and compliance with all avoidance and mitigation measures and have the authority to stop or redirect work if construction activities are likely to affect sensitive biological resources.	PG&E and its contractors to implement measure as defined	CPUC biological monitor to inspect compliance.	During all phases of construction activities.
	APM BIO-6: Nesting Bird Impact Avoidance and Protection. If construction work is scheduled during the nesting season (February 1 through August 31), nest detection surveys will correspond with a standard buffer for individual species in accordance with the species-specific buffers set forth in Appendix C of the PEA and will occur within 7 days prior to the start of construction to determine nesting status by a qualified biologist. Nest surveys will be accomplished by ground surveys and will support phased construction, with surveys scheduled to be repeated if construction lapses in a construction work area for 7 days between March and July. Access for ground surveys will be subject to property owner permission. If active nests containing eggs or young are found, the biologist will establish a species-specific nest buffer, as defined in Appendix C of the PEA. Where feasible, standard buffers will apply, although the biologist may increase or decrease the standard buffers in accordance with the factors set forth in Appendix C. Nesting pair acclimation to disturbance in areas with regularly occurring human activities will be considered when establishing nest buffers. The established buffers will remain in effect until the young have fledged or the nest is no longer active as confirmed by the biologist. Active nests will be periodically monitored until the biologist has determined that the young have fledged or once construction ends. At the discretion of the biologist, vegetation removal by hand may be allowed within nest buffers or in areas of potential nesting activity. Inactive nests may be removed in accordance with PG&E's approved avian permits. The biologist will have authority to order the cessation of nearby project activities if nesting pairs exhibit signs of disturbance.	PG&E and its contractors to implement measure as defined.	PG&E biologist to CPUC biological monitor to inspect compliance.	Up to 30 days prior to construction and during construction.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources (cont.)				
Impact 3.4.a (cont.)	<p>APM BIO-7: Prior to the start of construction and in conjunction with APM-BIO 3, a qualified botanist will resurvey mapped populations of Lyngbye's sedge and flag or otherwise mark (e.g., stake, fence) all special-status plant populations documented adjacent to construction work areas for avoidance as feasible. After project activities have been completed at a given worksite, all staking, fencing, or flagging will be removed.</p> <p>If complete avoidance of special-status plant populations is not possible, PG&E will implement the following:</p> <ul style="list-style-type: none"> PG&E will limit driving across special-status plant populations to the greatest extent feasible. Where direct disturbance to topsoil (except excavation) is unavoidable, matting and other protection measures (e.g., rig mats, timber roads, plating, or tracked vehicles) will be used to minimize soil compaction or destruction of underground plant structures. Matting and other protection measures will be approved by a qualified biologist before work begins at that location. For any unavoidable excavation required within Lyngbye's sedge populations, the upper 6 inches of topsoil containing the plant's rhizomes will be stockpiled. PG&E will use the stockpiled topsoil to restore the area after temporary construction has been completed. 	PG&E and its contractors to implement measure as defined.	CPUC biological monitor to inspect compliance.	Immediately prior to and during construction.
	<p>APM BIO-8: Special-Status Amphibian and Reptile Impact Avoidance and Protection. During wet weather or the rainy season, all open holes, pits, and trenches will be protected to ensure that frogs, salamanders, and/or turtles do not become entrapped. Protective fencing, coverings, or ramps will be installed to either prevent wildlife from falling into excavations or to allow for escape. At the end of each work day, steep-walled holes or trenches more than six inches deep will be covered or provided with one or more escape ramps and/or fenced. Open excavations will be inspected each morning, prior to the start of construction activities, to ensure that no wildlife are trapped. Construction personnel will also check underneath vehicles and within materials to be moved (i.e., tires, tracks, pipes, etc.) for the presence of frogs, salamanders, and/or turtles when parked or placed near suitable aquatic or upland dispersal habitat. Any species found will be captured and relocated to an approved location as approved by the resource agencies, if required, and in compliance with any regulatory permits issued for the project</p>	PG&E and its contractors to implement measure as defined.	CPUC biological Monitor to inspect compliance.	During construction.
	<p>APM BIO-9: Implement General Protection Measures for Wetlands and Other Waters. PG&E will implement the following general measures to minimize or avoid impacts on wetlands and other waters:</p> <ul style="list-style-type: none"> Avoid wetlands and other waters to the extent feasible. Construction activities in wetlands will generally occur during the dry season (May 1 to October 15) to the extent feasible. 	PG&E and its contractors to implement measure as defined.	CPUC biological monitor to inspect compliance.	Prior to and during ground disturbing construction activities.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources (cont.)				
Impact 3.4.a (cont.)	<ul style="list-style-type: none"> Ground-based construction activities in tidally influenced wetlands near Buhne Slough will not occur during extreme high tide events that would flood the construction work areas. Where travel across seasonal wetlands is necessary, it will occur during dry conditions, when feasible, to avoid soil compaction or mixing. If travel is required during wet or moist conditions, temporary matting or other protection measure (e.g., rig mats, timber roads, plating, or tracked vehicles [preferably rubber tracked]) will be used to avoid soil compaction or mixing. Matting and other protection measures will be approved by a qualified biologist before construction work at that location begins. Conduct all fueling of vehicles at least 100 feet from wetlands and other water bodies unless approved by a qualified biologist. Set construction work areas back at least 50 feet from streams, creeks, or other water bodies unless approved by a qualified biologist. Implement a Storm Water Pollution Prevention Plan (SWPPP) to minimize construction-related erosion and sediments from entering nearby waterways (see APM WQ-1). 			
	APM BIO-12: Minimize Impact to Marbled Murrelet. Helicopter work will not commence until at least two hours after sunrise and will end at least one hour before sunset to avoid the potential to interrupt peak daily feeding cycles for marbled Murrelet.	PG&E and its contractors to implement measure as defined.	CPUC biological monitor to inspect compliance.	During construction.
	MM BIO-1: Pre-construction Bat Survey. A pre-construction survey for special-status bat (i.e., Townsend's big-eared bat [<i>Corynorhinus townsendii</i>] and pallid bat [<i>Antrozous pallidus</i>]) habitat shall be conducted by a qualified biologist (i.e., who is experienced in the identification of special-status bat habitat) in advance of any tree removal, to identify signs of potential bat habitat and use (e.g., basal hollows in large trees or snags, large cavities or crevices, spaces under loose/exfoliating tree bark, or deep bark fissures). Bat maternity colonies will be avoided during construction. Should potential roosting habitat, or active bat roosts be found in trees to be removed, the following measures shall be implemented: <ul style="list-style-type: none"> Tree removal shall occur outside of months of maternity roosting (approximately April 15 to August 15) and winter torpor (approximately October 31 to March 31), to the extent feasible. Trees with maternity roosts shall be avoided during the roosting period (April 15 to August 15). If pre-construction surveys identify suitable bat roosting habitat in a tree planned for removal, a qualified biologist shall be present during tree removal. Trees shall be disturbed only when no rain is occurring or is not forecast to occur for three days and when daytime temperatures are at least 50 degrees Fahrenheit (°F). 	PG&E and its contractors to implement measure as defined.	CPUC biological monitor to inspect compliance.	Prior to final design and construction.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources (cont.)				
Impact 3.4.a (cont.)	<ul style="list-style-type: none"> Trimming and removal of trees containing or suspected to contain roost sites shall be done under supervision of a qualified biologist and implemented over two days. On day one, branches and limbs not containing cavities or fissures in which bats could roost shall be cut using chainsaws. The following day, the remainder of the tree, including branches or limbs containing roost sites shall be removed under the supervision of the biologist, also using chainsaws. 			
Impact 3.4.b: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service	<p>Implement APMs BIO-1 through BIO-5 (listed under Impact 3.4.a).</p> <p>MM BIO-2: Habitat Restoration Plan. A qualified ecologist shall prepare and implement a restoration plan with detailed specifications for restoring all temporarily disturbed sensitive natural communities. The plan shall provide for the following:</p> <ul style="list-style-type: none"> Pre-construction surveys by a qualified biologist of representative impact areas to characterize vegetation present. Use of locally native, ecologically suitable species for revegetation. Sanitation measures (e.g., locally sourced cuttings, elimination of container stock, or exclusive use of container plants grown according to plant pathogen best management practices) to prevent the introduction and/or spread of sudden oak death, other plant pathogens, and invasive plants during revegetation. Monitoring by a qualified biologist up to a period of five years unless performance standards are met earlier, or as specified by state and federal permitting agencies. Include minimum performance criteria for combined native and naturalized plant cover (50 percent, or equal to or greater than baseline within the monitoring period, or as specified by state and federal permitting agencies); and for maximum invasive plant cover (to return the project back to baseline conditions, or as specified by state and federal permitting agencies). 	PG&E and its contractors to implement measure as defined.	CPUC biological monitor to inspect compliance.	<p>As part of final design and prior to construction.</p> <p>At the conclusion of construction.</p>
Impact 3.4.c: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means	<p>Implement APMs BIO-1 through BIO-5, BIO-9, WQ-1, WQ-2, HAZ-1, and HAZ-2</p> <p>APM BIO-10: Restore Temporarily Impacted Wetlands and Other Waters. All wetlands and other waters that are temporarily disturbed as a result of project activities will be restored following completion of construction in accordance with any applicable resource agency permits.</p> <p>APM BIO-11: Compensate for Permanent Impacts on Wetlands and Other Waters in Accordance with Project Permits. PG&E will compensate for permanent impacts on wetlands by providing at least 1:1 mitigation for any unavoidable permanent impacts to wetlands and waters within the coastal zone and in compliance with resource agency</p>	PG&E and its contractors to implement measure as defined.	CPUC biological monitor to inspect compliance.	<p>As part of final design and prior to construction.</p> <p>At the conclusion of construction.</p> <p>To be completed as part of permitting.</p>

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources (cont.)				
Impact 3.4.c (cont.)	permit requirements. Final compensation ratios for impacts to wetlands and waters throughout the project alignment will be based on site-specific information and finalized through discussions with the U.S. Army Corps of Engineers and the North Coast Regional Water Quality Control Board as part of the permitting processes for the project.			
Cultural Resources				
Impact 3.5.b: Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5.	APM CUL-1: Workers Environmental Awareness Training. PG&E will provide environmental awareness training on archaeological resources protection. This training may be administered by the principal cultural resource specialist (CRS) as a stand-alone training or included as part of the overall environmental awareness training as required by the project and will at minimum include: types of cultural resources or fossils that could occur at the project site; types of soils or lithologies in which the cultural resources could be preserved; procedures that should be followed in the event of a cultural resource or human remain discovery; and penalties for disturbing cultural resources.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to any ground-disturbance.
	APM CUL-2: Flag and Avoid Resources (Spiegelberg Homestead Archaeological Deposit). The archaeological deposit at the Spiegelberg Homestead is not in the PAL, but adjacent to it. There are no roadway or land improvements proposed in this location as use of this area is limited to access to a landing zone. Additionally, no pole replacements or installations are proposed at this location. However, to ensure no inadvertent impacts occur to this resource, a qualified archaeologist will establish exclusion flagging or safety fencing around the archaeological site.			
	Mitigation Measure CUL-1: This measure supersedes APM CUL-3(a) and CUL-4. If indigenous or historic-era archaeological resources are encountered during proposed Project development or operation, PG&E and/or its contractors shall immediately cease all construction activity within 100 feet of the find and flag off the area for avoidance. The CPUC and a qualified archaeologist, defined as one meeting the U.S. Secretary of the Interior's Professional Qualifications Standards for Archeology and with expertise in California archaeology, shall be immediately informed of the discovery. The qualified archaeologist shall inspect the discovery and notify the CPUC of their initial assessment. Indigenous archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (midden) containing heat-affected rocks, artifacts, or shellfish remains; stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include building or structure footings and walls, and deposits of metal, glass, and/or ceramic refuse. If the qualified archaeologist determines that the resource is or is potentially indigenous in origin, culturally affiliated California Native American Tribes shall be contacted to assess the find and determine whether it is potentially a tribal cultural resource	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction involving ground-disturbance.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Cultural Resources (cont.)				
Impact 3.5.b (cont.)	<p>If the CPUC determines, based on formal evaluations of California Register-eligibility (at Public Resources Code Section 5024.1[c]) documented by the qualified archaeologist and the culturally affiliated California Native American Tribes (if the resource is indigenous), that the resource is either an historical resource or unique archaeological resource (as defined in CEQA Guidelines Section 15064.5 and Public Resources Code Section 21083.2), or that the resource may qualify as a tribal cultural resource (as defined in Public Resources Code Section 21074), then the resource shall be avoided if feasible. Avoidance means that no activities associated with the proposed Project that may impact cultural resources shall occur within the boundaries of the resource or any defined buffer zones. The CPUC shall determine whether avoidance is feasible considering factors such as the nature of the find, project design, costs, and other considerations. Formal significance evaluations under California Register Criterion 4 shall be guided by research designs developed by a qualified archaeologist.</p> <p>If avoidance of such a resource is not feasible, the CPUC shall consult with a qualified archaeologist, culturally affiliated California Native American Tribes (if the resource is indigenous), and other appropriate interested parties to determine treatment measures to minimize or mitigate any potential impacts to the resource pursuant to Public Resources Code Section 21083.2 and CEQA Guidelines Section 15126.4.</p> <p>If avoidance is not feasible, the CPUC shall prepare and implement an Archaeological (and/or Tribal Cultural) Resources Treatment Plan that outlines the treatment measures for the resource based on the resource's values/significance as detailed in the formal California Register-eligibility evaluation.</p> <p>Any treatment measures implemented shall be documented in a professional-level technical report (e.g., Archaeological Testing Results Report, Archaeological Data Recovery Report, Ethnographic Report, etc.), to be authored by a qualified archaeologist and filed with CHRIS. Construction work at the location of the find may commence upon completion of the approved treatment and authorization by the CPUC. Work may proceed in other parts of the C-APE while the mitigation is being carried out.</p> <p>If the CPUC determines during project implementation that portions of the C-APE may be sensitive for archaeological resources or tribal cultural resources, the CPUC may authorize construction monitoring of these locations by a qualified archaeologist and Native American monitor. Any monitoring by a Native American monitor shall be done under agreements between PG&E or their designated contractor and culturally affiliated California Native American Tribes.</p>			

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Cultural Resources (cont.)				
Impact 3.5.c: Disturb any human remains, including those interred outside of formal cemeteries.	<p>Implement APM CUL-1</p> <p>APM CUL-3: Manage Unanticipated Cultural Resources Discoveries.</p> <p>a) Cultural Resources</p> <p>If cultural resources 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 PG&E CRS/archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with PG&E and other appropriate agencies. Work may continue on other portions of the site with the CRS/archaeologist's approval. PG&E will implement the CRS/archaeologist's recommendations for treatment of discovered cultural resources.</p> <p>b) Human Remains</p> <p>In keeping with the provisions provided in 7050.5 CHSC and Public Resource Code 5097.98, in the unlikely event that human remains or suspected human remains are encountered during any project-related activity, PG&E will:</p> <ul style="list-style-type: none"> • Stop all work within 100 feet; • Immediately contact the CRS, who will then notify the county coroner and the CPUC; • Secure the location, but do not touch or remove remains and associated artifacts; • Do not remove associated spoils or pick through them; • Record the location and keep notes of all calls and events; and • Treat the find as confidential and do not publicly disclose the location. <p>If the coroner determines that the remains are Native American, California Health and Safety Code 7050.5 and PRC Section 5097.98 require that the PG&E CRS contact the NAHC within 24 hours. The NAHC, as required by PRC Section 5097.98, will determine and notify the Most Likely Descendant.</p>	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction involving ground-disturbance.
Geology, Soils, and Paleontological Resources				
Impact 3.7.a.iii: Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.	<p>APM GEO-1: Minimization of Construction in Soft or Loose Soils. Where soft or loose soils are encountered during project construction, appropriate measures will be implemented to avoid, accommodate, replace, or improve such soils. Depending on site-specific conditions and permit requirements, these measures may include excavating soft or loose soils and replacing them with engineered backfill materials, or installing matting in temporary work areas.</p>	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction activities.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Geology, Soils, and Paleontological Resources (cont.)				
Impact 3.7.a.iii (cont.)	APM GEO-2: Reduction of Slope Instability during Construction. Existing natural or temporarily constructed slopes affected by construction or operations will be evaluated for stability. Grading plans will be designed to limit the potential for slope instability and minimize the potential for erosion.			
Impact 3.7.a.iv: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.	Implement APM GEO-2 (listed under Impact 3.7.a.iii)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction activities.
Impact 3.7.b: Result in substantial soil erosion or the loss of topsoil.	Implement APM WQ-1	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.
Impact 3.7.c: Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse	Implement APM GEO-1 and GEO-2 (listed under Impact 3.7.a.iii)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction activities.
Impact 3.7.f: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	APM PALEO-1: Unanticipated Potential Paleontological Resource. If significant paleontological resources are discovered during construction activities, the following procedures will be followed: <ul style="list-style-type: none"> Stop work immediately within 100 feet. Contact the designated project inspector and PG&E CRS immediately; Protect the site from further impacts, including looting, erosion or other human or natural damage; 	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction activities involving ground disturbance.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Geology, Soils, and Paleontological Resources (cont.)				
Impact 3.7.f (cont.)	<ul style="list-style-type: none">The PG&E CRS in tandem with CPUC will arrange for a qualified paleontologist to evaluate the discovery. The paleontologist will be responsible for developing the recovery strategy in tandem with PG&E and will lead the recovery effort, which will include establishing recovery standards, preparing specimens for identification and preservation, documentation and reporting, and securing a curation agreement from the approved agency; and,Work may not resume within 100 feet of the find until approval by the paleontologist and PG&E CRS.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Training shall take place prior to and during construction for new staff.
	<p>APM PALEO-2: Worker's Environmental Awareness Training. Moderate and potentially high sensitivity formations are identified within the PAL; therefore, PG&E will provide environmental awareness training on paleontological resources protection. This training may be administered as a stand- alone training or included as part of the overall environmental awareness training as required by the project. The training will include, at minimum, the following:</p> <ul style="list-style-type: none">The types of fossils that could occur at the project site.The types of lithologies in which the fossils could be preserved.The procedures that should be taken in the event of a fossil discovery.Penalties for disturbing paleontological resources.			
Greenhouse Gas Emissions				
Impact 3.8.a: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	<p>APM GHG-1: Minimize GHG Emissions.</p> <ul style="list-style-type: none">Maintain construction equipment in proper working conditions in accordance with PG&E standards.Minimize unnecessary construction vehicle idling time. The project will apply a “common sense” approach to vehicle use, so that idling is reduced as far as possible below the maximum of 5 consecutive minutes allowed by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off.Maintain construction equipment in proper working conditions in accordance with PG&E standards.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during all phases of construction.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Greenhouse Gas Emissions (cont.)				
Impact 3.8.a (cont.)	<ul style="list-style-type: none"> Minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible. Portable diesel-fueled construction equipment with engines of 50 horsepower or larger and manufactured in 2000 or later will be registered under the CARB Statewide Portable Equipment Registration Program. Minimize welding and cutting by using compression of mechanical applications where practical and within standards. Encourage the recycling of construction waste where feasible 			
Hazards and Hazardous Materials				
Impact 3.9.a: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	<p>APM HAZ-1: Hazardous-Substance Control and Emergency Response. PG&E will implement its hazardous substance control and emergency response procedures to ensure the safety of the public and site workers during construction. The procedures identify methods and techniques to minimize the exposure of the public and site workers to potentially hazardous materials during all phases of project construction through operation. They address worker training appropriate to the site worker's role in hazardous substance control and emergency response. The procedures also require implementing appropriate control methods and approved containment and spill-control practices for construction and materials stored on site. If necessary to store chemicals on site, they will be managed in accordance with all applicable regulations. Material safety data sheets will be maintained and kept available.</p> <p>No known soil contamination was identified within the project site. In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are unearthed during site grading or excavation activities, the excavated soil will be tested, and if contaminated above hazardous waste levels, will be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil will require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations.</p> <p>All hazardous materials and hazardous wastes will be handled, stored, and disposed of in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. The hazardous substance control and emergency response procedures include, but are not limited to, the following:</p> <ul style="list-style-type: none"> Proper disposal of potentially contaminated soils. Establishing site-specific buffers for construction vehicles and equipment located near sensitive resources. Emergency response and reporting procedures to address hazardous material spills. 	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Hazards and Hazardous Materials (cont.)				
Impact 3.9.a (cont.)	<ul style="list-style-type: none"> Stopping work at that location and contacting the County Fire Department Hazardous Materials Unit immediately if visual contamination or chemical odors are detected. Work will be resumed at this location after any necessary consultation and approval by the Hazardous Materials Unit. <p>PG&E will complete a standard Emergency Action Plan Form as part of project tailboard meeting. The purpose of the form is to gather emergency contacts numbers, first aid location, work site location, and tailboard information.</p>	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.
	<p>APM HAZ-2: Worker Environmental Awareness Program (WEAP) for Health, Safety, and Environment. The WEAP will include the following components related to hazards and hazardous materials:</p> <ul style="list-style-type: none"> PG&E health, safety, and environmental expectations and management structure. Applicable regulations. Summary of hazardous substances and materials that may be handled and/or to which workers may be exposed. Summary of the primary workplace hazards to which workers may be exposed. Overview of the measures identified in APM HAZ-1. Overview of the controls identified in the Stormwater Pollution Prevention Plan under APM HYDRO-1. <p>This measure will be coordinated with worker training required under APM BIO-1 and APM WQ-2.</p>	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction and ongoing for new staff.
Impact 3.9.b: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Implement APMs HAZ-1 and HAZ-2 (listed under Impact 3.9.a)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction and ongoing for new staff.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Hazards and Hazardous Materials (cont.)				
Impact 3.9.c: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.	Implement APMs HAZ-1 and HAZ-2 (listed under Impact 3.9.a)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction and ongoing for new staff.
Impact 3.9.e: Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area	APM TT-2: Air Traffic Control. PG&E will implement the following protocols related to helicopter use: <ul style="list-style-type: none"> PG&E will comply with all applicable FAA regulations regarding air traffic; PG&E will prepare a Helicopter Use Plan; Helicopter operators will coordinate all project helicopter operations with local airports before and during project construction; and PG&E will comply with FAA requirements for helicopter activities in residential areas that will reduce safety risks, an if necessary coordinate with residents that may need to temporarily evacuate their properties. 	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.
Impact 3.9.f: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Implement APMs TT-1 and APM TT-3 (see Impact 3.17a, and Impact 3.17.d) listed under Transportation.			
Impact 3.9.g: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.	Implement Mitigation Measure WF-1, WF-2, and WF-3, (see Impact 3.20.a and 3.20.b) listed under Wildfire. APM HAZ-3: Fire Risk Management. PG&E will follow its standard fire risk management procedures, including safe work practices, work permit programs, training, and fire response. Project personnel will be directed to park away from dry vegetation. During fire season, all motorized equipment driving off paved or maintained gravel/dirt roads will have federal- or state-approved spark arrestors. All off-road vehicles will be equipped with a shovel and backpack pump filled with water and all fuel trucks will carry a large fire extinguisher with minimum rating of B:C.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Hydrology and Water Quality				
Impact 3.10.a: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	Implement APM HAZ-1 (see Impact 3.9.a) and APM BIO-2 (see Impact 3.4.a), listed under Hazards and Hazardous Materials and Biological Resources, respectively. APM WQ-1: Development and Implementation of a SWPPP. Following project approval, PG&E will prepare and implement a SWPPP to minimize construction impacts on surface water and groundwater quality. The SWPPP will be designed specifically for the hydrologic setting of the proposed project (e.g., surface topography, etc.). The SWPPP will include procedures and standards to stabilize graded areas, reduce erosion, avoid release of hazardous materials and sediment to surface waters, and manage dewatering effluents. The SWPPP will identify BMPs and erosion and sediment control measures, such as straw wattles, water bars, covers, silt fences, storm drain inlet protection, mud trackout controls, and sensitive area access restrictions (e.g., flagging) that will be installed before the onset of winter rains or anticipated storm events to minimize impacts on surface water and groundwater.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.
Impact 3.10.b: Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Implement APM WQ-1 (listed under Impact 3.10.a)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.
Impact 3.10.c.i: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site.	Implement APM WQ-1 (listed under Impact 3.10.a)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Hydrology and Water Quality (cont.)				
Impact 3.10.c.iii: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	Implement APM WQ-1 (listed under Impact 3.10.a)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.
Land Use and Planning				
No mitigation required.				
Mineral Resources				
No mitigation required.				
Noise and Vibration				
Impact 3.13.a: Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	APM NOI-3: Notify Sensitive Receptors of Helicopter Use. Sensitive receptors within 300 feet of areas where helicopters will be used for construction will be notified by mail, personal visit, door hanger, or email at least 7 days prior to beginning helicopter activities. Notification will include posting signs in appropriate locations with a contact number to call with questions and concerns.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	At least 7 days prior to helicopter activities.
	Mitigation Measure NOI-1a: Adherence to City of Eureka Construction Hour Restrictions. Construction activities within the City of Eureka shall be restricted to the daytime hours between 7:00 a.m. and 7:00 p.m., except as allowed pursuant to Mitigation Measure NOI-1b.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Noise and Vibration (cont.)				
Impact 3.13.a (cont.)	<p>Mitigation Measure NOI-1b: Nighttime Construction. In the event construction would be required to occur outside the hours specified in Mitigation Measure NOI-1a and within 500 feet of sensitive receptors, PG&E and/or its contractors shall implement the following measures to reduce any potential nighttime noise impacts.</p> <ul style="list-style-type: none"> Plan construction activities to minimize the amount of nighttime construction. When nighttime construction activities take place within 200 feet of noise sensitive receptors, use portable construction noise barriers, such as paneled noise shields, barriers, enclosures, or sound curtains adjacent to or around loud stationary equipment. Noise control shields shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield. Offer temporary relocation of residents within 200 feet of nighttime construction activities that would occur after 10:00 p.m. The notification requirements in APM NOI-2 shall be extended to include residences within 500 feet of planned nighttime construction activities. All residents within 500 feet of the proposed nighttime construction site(s) shall be notified at least 7 days in advance by mail, personal visit, door hanger, or e-mail and informed of the expected work schedule. 	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.
	<p>Mitigation Measure NOI-1c: Construction Noise Management. PG&E and/or its contractors shall implement the measures identified below to ensure that construction noise levels are reduced to 90 dBA Leq or less at sensitive receptors located within 100 feet.</p> <ol style="list-style-type: none"> Comply with manufacturer's muffler requirements on all construction equipment engines and ensure exhaust mufflers are in good condition; Turn off construction equipment when not in use, where applicable; Locate stationary equipment, construction staging areas, helicopter landing zones, and construction material areas as far as practical from sensitive receptors; Include noise control requirements for construction equipment and tools in specifications provided to construction contractors to the maximum extent practicable, including performing all work in a manner that minimizes noise; using equipment with effective mufflers; undertaking the noisiest activities during times of least disturbance to surrounding residents and occupants; and selecting haul routes that avoid residential areas; PG&E shall provide notice by mail at least 1 week prior to construction activities to all sensitive receptors and residences within 500 feet of construction sites, staging yards, and access roads, and within 1,000 feet of helicopter landing zones and flight paths. PG&E shall also post notices in public areas, including recreational use areas, 	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Noise and Vibration (cont.)				
Impact 3.13.a (cont.)	<p>6. within 500 feet of the Project alignment and construction work areas. The announcement shall state approximately where and when construction will occur in the area. For areas that would be exposed to helicopter noise, the announcement shall provide approximate details on the schedule of the dates, times, and duration of helicopter activities. Notices shall provide tips on reducing noise intrusion, for example, by closing windows facing the planned construction. PG&E shall identify and provide a public liaison before and during construction to respond to concerns of neighboring receptors, including residents, about construction noise disturbance. PG&E shall also establish a toll-free telephone number for receiving questions or complaints during construction and develop procedures for responding to callers. Procedures for reaching the public liaison officer via telephone or in person shall be included in the above notices and also posted conspicuously at the construction site(s). PG&E shall address all complaints within 1 week of when the complaint is filed. PG&E shall provide monthly reports with records of complaints and responses to the CPUC. These reports shall be provided to the CPUC within 15 days of the end of the month.</p> <p>7. When construction activities take place within 100 feet of noise sensitive areas, use portable construction noise barriers such as paneled noise shields, barriers, or enclosures, or sound curtains adjacent to or around loud stationary equipment. Noise control shields shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield. Noise control shields with a minimum performance rating of STC-25 and Noise Reduction Coefficient (NRC) of 0.75 are capable of attenuating noise levels by up to 15 dBA.</p> <p>8. Route all construction traffic via designated truck routes where possible and prohibit construction related heavy truck traffic in residential areas where feasible.</p>			
Public Services				
Impact 3.15.a.i: Fire protection.	Implement APM HAZ-3 (see Impact 3.9.g), APM WF-3 (see Impact 3.20.b), and APM TT-3 (see Impact 3.17.d).	PG&E and its contractors to implement measure as defined.	CPUC to inspect compliance.	At least 24 hours prior to implementing any road or lane closures.
Recreation				
Impact 3.16.a: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	APM REC-1: Coordination and Signage. PG&E will coordinate with the operators of the Redwood Fields Ballpark, Redwood Acres Fairgrounds, and McKay Community Forest during project construction activities to minimize any potential construction impacts from the project. Signage notifying of construction activities will be posted at these recreational facilities at least one week in advance of construction.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Signage to be posted at least one week prior to construction.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Transportation				
Impact 3.17.a: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.	APM TT-1: Temporary Traffic Controls. PG&E will obtain necessary transportation and encroachment permits from Caltrans and the local jurisdictions, as required, including those related to State Route crossings and the transport of oversized loads and certain materials, and will comply with permit requirements designed to prevent excessive congestion or traffic hazards during construction. PG&E will develop road and lane closures or width reduction or traffic diversion plans as required by the encroachment permits. Construction activities that are in, along, or cross local roadways will follow best management practices and local jurisdictional encroachment permit requirements, which may include traffic controls such as signs, cones, and flaggers to minimize impacts on traffic and transportation in the Project area. PG&E will coordinate with ETS regarding the schedule and scope of construction activities that could interfere with bus routes crossed by the Project alignment and will coordinate temporary relocation of bus stops if necessary.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to applicable phases of construction involving traffic control.
Impact 3.17.c: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	Implement APM TT-1 (see Impact 3.17.a)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to applicable phases of construction involving traffic control.
Impact 3.17.d: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Implement APM TT-1 (see Impact 3.17.a)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to applicable phases of construction involving traffic control.
	APM TT-3: Coordination Road Closures with Emergency Service Providers and School Districts. At least 24 hours prior to implementing any road or lane closure, PG&E will coordinate with applicable emergency service providers and school districts in the Project vicinity. PG&E will provide information regarding the road or lanes to be closed, the anticipated date, time, and duration of closures, and a contact telephone number.			Construction. At least 24 hours prior to implementing any road or lane closures.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Tribal Cultural Resources				
Impact 3.18.a.i: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	Implement APM CUL-1 and Mitigation Measure CUL-1 (see Impact 3.5.b and 3.5.c)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction involving ground-disturbance.
Impact 3.18.a.ii: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Implement APM CUL-1 and Mitigation Measure CUL-1 (see Impact 3.5.b and 3.5.c)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction involving ground-disturbance.
Utilities and Service Systems				
Impact 3.19.a: Require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	Implement APM GEO-2 (see Impact 3.7.a.iii) and APM WQ-1 (see Impact 3.10.a) which can be found under Geology and Soils, and Hydrology and Water Quality, respectively.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Wildfire				
Impact 3.20.a: Substantially impair an adopted emergency response plan or emergency evacuation plan	Implement APMs TT-1 (see impact 3.17.a) and TT-3 (see Impact 3.17.d), listed under Transportation.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction
	APM WF-1: Smoking and Fire Rules. Smoking will not be permitted on site, except in barren areas that measures a minimum of 20 feet in diameter and are cleared to mineral soil. Under no circumstances will smoking be permitted during the fire season (approximately July through October) while employees are operating equipment, or while walking or working in grass and woodlands.			During all phases of construction and operation of the project.
	APM WF-2: Carry Emergency Fire Suppression Equipment. PG&E construction crew trucks and large equipment shall have, at a minimum, a standard roundpoint shovel and a fire extinguisher. If construction activities likely to cause sparks (e.g., welding, grinding, or grading in rocky terrain) are conducted, emergency fire tool boxes shall be readily available to crews. The emergency fire tool boxes shall contain fire-fighting items such as shovels, axes, and water.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction and operation of the project.
Impact 3.20.b: Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	<p>APM WF-3: Construction Fire Prevention Plan. PG&E shall prepare a Construction Fire Prevention Plan consistent with the measures identified in APM HAZ-3, Fire Risk Management, that addresses procedures for fire prevention at active construction sites. The Construction Fire Prevention Plan shall include requirements for carrying emergency fire suppression equipment, conducting "tailgate meetings" that cover fire safety discussions, restricting smoking, idling vehicles, and restricting construction during red flag warnings. The Construction Fire Prevention Plan shall address the following fire risk reduction measures:</p> <ul style="list-style-type: none"> • Training and briefing all personnel working on the project in fire prevention and suppression methods. • Conducting a fire prevention discussion at each morning's safety meeting. • Storage of prescribed fire tools and backpack pumps with water within 50 feet of work activities. • Assigning personnel to conduct a "fire watch" or "fire patrol" to ensure that risk mitigation and fire preparedness measures are implemented, immediate detection of a fire, and to coordinate with emergency response personnel in the event of a fire. <p>The Construction Fire Prevention Plan will be submitted to the CPUC for review at least 30 days prior to construction</p>	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Plan shall be prepared and submitted to the CPUC for review at least 30-days prior to construction.

TABLE 3-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Wildfire (cont.)				
Impact 3.20.d: Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes	Implement APMs WF-1, WF-2, WF-3 (see Impact 3.20.a, 3.20.b) and HAZ-3 (see Impact 3.9.g).	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	

Appendix A

PG&E Humboldt Bay-Humboldt #1 60 kV Reconductoring Project (A.19-02-004) Draft Initial Study/Mitigated Negative Declaration



CALIFORNIA PUBLIC UTILITIES COMMISSION

PACIFIC GAS & ELECTRIC HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Draft Initial Study

February 2020



A.19-02-004
State Clearinghouse No. TBD

Prepared for:
California Public Utilities Commission

Prepared by:
Environmental Science Associates





CALIFORNIA PUBLIC UTILITIES COMMISSION

PACIFIC GAS & ELECTRIC HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ADA	Americans with Disabilities Act
ADFW	average dry weather flow
AHJ	Agency Having Jurisdiction
AP	Alquist-Priolo
APM	Applicant Proposed Measure
ARMP	Archaeological (and/or Tribal Cultural) Resources Management Plan
ASCE	American Society of Civil Engineers
ATVs	All-Terrain Vehicles
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
BGEPA	Bald Eagle and Golden Eagle Protection Act
BLM	Bureau of Land Management
BMP	Best Management Practice
BOE	State Board of Equalization
BRTR	Biological Resources Technical Report
C-APE	CEQA Area of Potential Effects
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CaRFG	California Reformulated Gasoline
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CaRFG	California Reformulated Gasoline
CARB	California Air Resources Board
CESA	California Endangered Species Act
CCA	California Coastal Act
CCC	California Coastal Commission
CCR	California Code of Regulations
CDC	California Department of Conservation
CDHS	California Department of Health Services
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERP	Company Emergency Response Plan
CESA	California Endangered Species Act

CFPP	Construction Fire Prevention Plan
CFR	Code of Federal Regulations
CH ₄	methane
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CPT	Cone Penetration Tests
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CRS	cultural resource specialist
CUPA	Certified Unified Program Agency
CWA	Federal Water Pollution Control Act (Clean Water Act)
CWPP	Community Wildfire Protection Plan
DEIR	Draft Environmental Impact Report
(US)DOT	United States Department of Transportation
DPM	Diesel Particulate Matter
DPS	distinct population segment
DTSC	United States Department of Toxic Substance Control
EDP	engineered direct embedded pole
EIR	Environmental Impact Report
EMS	emergency medical service
EPD	Eureka Police Department
ERWWTP	Elk River Wastewater Treatment Plant
ESA	Environmental Science Associates
ESU	evolutionary significant unit
ETS	Eureka Transit Service
F	Fahrenheit
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FMMP	Farmland Mapping and Monitoring Program
FOCA	Federal Office of Civil Aviation
GCPD	gallons per capita per day
GHG	greenhouse gas
GO	General Order
GSAs	groundwater sustainability agencies
GWP	global warming potential

H ₂ S	ammonia
HB-E	Humboldt Bay Eureka 60kV Power Line
HB-H #1	Humboldt Bay-Humboldt #1 60kV Power Line
HB-H #2	Humboldt Bay-Humboldt #2 60kV Power Line
HBF	Humboldt Bay Fire
HBMWD	Humboldt Bay Municipal Water District
HCFSC	Humboldt County Fire Safe Council
HCP	Habitat Conservation Plan
HCSD	Humboldt Community Service District
HFC	hydrofluorocarbon
HMBP	Hazardous Materials Business Plan
HRA	Health Risk Assessment
HSC	California Health and Safety Code
HWMA	Humboldt Waste Management Authority
IBC	International Building Code
IOU	Investor Owned Utility
IPCC	Intergovernmental Panel on Climate Change
IS/MND	Initial Study/Mitigated Negative Declaration
kV	kilovolt
kW	kilowatts
kWh	kilowatt-hours
LCP	Local Coastal Program
LDS	light duty steel
LEV	Low-Emission Vehicle
LOS	Level of Service
LRAs	Local Responsibility Area
LST	lattice steel towers
MBTA	Migratory Bird Treaty Act
mgy	million gallons per year
MMRCP	Mitigation Monitoring, Reporting, and Compliance Program
MND	Mitigated Negative Declaration
mpg	miles per gallon
MW	megawatt
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Planning
NCAB	North Coast Air Basin
NCIC	North Coast Information Center
NCRA	North Coast Rail Authority
NCUAQMD	North Coast Unified Air Quality Management District

NECPA	National Energy Conservation Policy Act
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic and Safety Administration
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSR	New Source Review
NWIC	Northwest Information Center
O ₃	ozone
OEHHHA	Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
OHP	Office of Historic Preservation
OSHA	Occupational Safety and Health Administration
PAHC	polynuclear aromatic hydrocarbons
PCBS	polychlorinated biphenyls
PEA	Proponent's Environmental Assessment
PFC	perfluorocarbon
PFYC	Potential Fossil Yield Classification
PG&E	Pacific Gas and Electric Company
PHEV	plug-in hybrid vehicle
PM ₁₀	particulate matter less than 10 microns in diameter
PM _{2.5}	particulate matter less than 2.5 microns in diameter
PSD	Prevention of Significant Deterioration
PSPS	Public Safety Power Shutoff
PRC	Public Resources Code
RCEA	Redwood Coast Energy Authority
ROG	reactive organic gases
ROW	right(s)-of-way
RPS	Renewables Portfolio Standard
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SCADA	supervisory control and data acquisition
SCE	Southern California Edison
SDG&E	San Diego Gas and Electric Company
SDS	Safety Data Sheets
SEMS	California Standardized Emergency Management System
SF ₆	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act of 2014
SIP	State Implementation Plan

SIPT	Safety and Infrastructure Protection Teams
SLF	Sacred Lands File
SMA	Streamside Management Area
SMARTS	Stormwater Multiple Applications and Report Tracking Systems
SO ₂	sulfur dioxide
SOPP	Storm Outage Prediction Model
SR	State Route
SRAs	State Responsibility Area
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
THP	Timber Harvest Plans
TSP	tubular steel pole
UBC	Uniform Building Code
UCERF3	Uniform California Earthquake Rupture Forecast
UCMP	University of California Museum of Paleontology
USACE	United States Army Corps of Engineers
USC	United States Code
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
VHFHSZ	Very High Fire Hazard Severity Zones
WEAP	Worker Environmental Awareness Program
WEAT	Worker's Environmental Training Awareness
WGCEP 2014	Working Group on California Earthquake Probabilities 2014
WSP	Wildfire Safety Plan
ZEV	Zero-Emission Vehicle

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EXECUTIVE SUMMARY

Introduction

On February 7, 2019, Pacific Gas and Electric Company (PG&E) submitted a Permit to Construct (PTC) Application (A.19-02-004) to the California Public Utilities Commission (CPUC) for the PG&E Humboldt Bay-Humboldt No. 1 60kV Reconductoring Project (Project). PG&E proposes to reconductor approximately 7.8 miles of single circuit power lines to maintain electric transmission system reliability in the City of Eureka and serve as critical back tie between the Humboldt Bay Power Plant and the Humboldt Substation, pursuant to CPUC General Order (GO) 131-D. The PTC Application includes the Proponent's Environmental Assessment (PEA) prepared pursuant to Rule 2.4 of the CPUC's Rules of Practice and Procedure.

The Project is subject to the California Environmental Quality Act (CEQA). CEQA requires a lead agency – here, the CPUC – to prepare an Initial Study (IS) to determine if the Project may have a significant effect on the environment (CEQA Guidelines §15063(a)). If the agency determines there is substantial evidence that the Project may cause a significant effect on the environment, it shall prepare an Environmental Impact Report (EIR). The lead agency shall prepare a negative declaration if there is no substantial evidence that the Project may cause a significant effect on the environment (CEQA Guidelines §15063(b)). If the IS identifies potentially significant effects of the Project, but the applicant agrees to revisions that would avoid or mitigate the effects to a point where clearly no significant effects would occur, then a Mitigated Negative Declaration (MND) shall be prepared (Pub. Res. Code §§21064.5, 21080(c); 14 Cal. Code Regs. §§15064(f)(2), 15070(b)).

Based on the analysis in the IS and the substantial evidence supporting the analysis, it has been determined that all significant environmental impacts of the Project would be avoided or reduced to below the level of significance with the incorporation of feasible mitigation measures agreed to by PG&E. For this reason, adoption of an IS/MND satisfies the requirements of CEQA.

Project Description

The Project is located in unincorporated Humboldt County and the City of Eureka. The Project begins at Humboldt Bay Substation located south of Eureka and west of Spruce Point in an industrial area west of Highway 101. From Humboldt Bay Substation, the Project would travel northeast through unincorporated Humboldt County, then back through Humboldt County, terminating at Humboldt Substation located east of Eureka near Myrtle Avenue. Primary Project components include:

- **Humboldt Bay-Humboldt #1 (HB-H #1) 60kV Power Line Reconductoring:**
 - Replace 7.8 miles of bare single-circuit 60 kV conductors and insulators with a larger-diameter aluminum, specular conductor;
 - Replace 90 existing wood poles with approximately 52 wood poles and 38 light duty steel poles, one tubular steel pole, and four lattice steel towers;
 - Replace eight light duty steel poles with five wood poles and three light duty steel poles;
 - Remove six wood poles and shorten four additional wood poles; and
 - Reframe or replace insulators on approximately 10 existing poles.
- **Humboldt Bay-Eureka (HB-E) 60kV Power Line Reconductoring:**
 - Relocate 0.6-mile of HB-E line to a new tubular steel pole with Humboldt Bay-Humboldt #2 60kV Power Line line, co-locate the HB-E line with the HB-H #1 line on its four new lattice steel towers, and replace the existing conductor; and
 - Remove seven wood poles and shorten three additional wood poles.
- **Humboldt Bay-Humboldt #2 (HB-H #2) 60kV Power Line Relocation:**
 - Remove a single wood pole and move the line onto the new tubular steel pole on the HB-E line.

Environmental Determination

This IS/MND has been prepared to identify the potential environmental effects resulting from implementation of the Project, evaluate the level of significance of these effects, and identify the revisions in the Project (i.e., mitigations) that would avoid the effects or reduce them below established thresholds of significance. This IS/MND relies on information from PG&E's Application for a PTC, the accompanying PEA, a Project site reconnaissance, PG&E's responses to deficiency letters and data requests by the CPUC, and the environmental expertise of the CPUC's consultant, who has prepared this IS/MND.

In its PEA, PG&E identified a number of Applicant Proposed Measures (APMs) to avoid or reduce potential impacts associated with the Project. In some instances, those APMs have been superseded by CPUC-recommended mitigation measures, as described in this IS/MND. Those APMs that have not been superseded are considered part of the Project for the purpose of this IS/MND and, upon adoption of the Final MND, would become part of the Mitigation Monitoring, Compliance, and Reporting Program to assure that implementation of and compliance with the APMs would be monitored and enforced by the CPUC. Based on the analysis documented in this IS/MND, in addition to implementation of APMs, mitigation measures are recommended for the following resource areas, to reduce impacts of the Project to a less-than-significant level:

- Air Quality
- Biological Resources
- Cultural Resources
- Noise
- Tribal Cultural Resources

The mitigation measures either supplement or supersede the APMs proposed by PG&E. PG&E has agreed to implement all of the recommended mitigation measures as part of the Project. Upon adoption of the Final MND, the recommended mitigation measures would become part of the Project Mitigation Monitoring, Compliance, and Reporting Program.

Environmental impacts, applicable APMs, and mitigation measures for the Project are provided in Chapter 3 of this IS/MND. **Table ES-2** at the end of this Executive Summary identifies the potentially significant environmental impacts of the Project and applicable APMs and recommended mitigation measures that reduce those impacts to a less-than-significant level. The draft Mitigation Monitoring, Compliance, and Reporting Program included in Chapter 5 of this IS/MND will be updated if needed to reflect the CPUC's decision on the Project, including any revisions to the mitigation measures that must be implemented if the Project is approved.

Required Approvals

The CPUC is the lead state agency for the Project under CEQA because a PTC is required in accordance with Section III.B of CPUC General Order 131-D. General Order 131-D contains the permitting requirements for the construction of transmission and power line facilities. In addition to the PTC, PG&E would obtain all applicable permits for the Project from federal, state, and local agencies. **Table ES-1** provides the potential permits and approvals that may be required for Project construction.

TABLE ES-1
PERMITS AND APPROVALS THAT MAY BE REQUIRED

Permit/Authorization	Agency	Purpose
Federal		
Clean Water Act Section 404 Nationwide Permit 12 and Rivers and Harbors Act Section 10 Permit for work over navigable waters	U.S. Army Corps of Engineers (USACE)	Impacts on wetlands and waters of the U.S.
Endangered Species Act Section 7 Consultation	National Marine Fisheries Service/United States Fish and Wildlife Service	Potential impacts to federally listed species
Section 106 Consultation (National Historic Preservation Act) (consultation)	State Historic Preservation Officer	Consultation regarding potential impacts to cultural resources
State		
GO-131-D Permit to Construct	CPUC	Issuance of a permit to construct
CEQA Review/Approval		Overall project approval and CEQA review
Coastal Act Coastal Development Permit or Waiver	California Coastal Commission and/or Humboldt County	Work within the Coastal Zone
National Pollutant Discharge Elimination System – General Construction Storm Water Permit (ministerial)	North Coast Regional Water Quality Control Board	Stormwater discharges associated with construction activities disturbing more than 1 acre of land
Clean Water Act Section 401 Water Quality Certification/Waste Discharge Requirement	North Coast Regional Water Quality Control Board	Discharges into Waters of the United States and Waters of the State
Encroachment Permit	Caltrans	Conductor installation over Highway 101

TABLE ES-1 (CONTINUED)
PERMITS AND APPROVALS THAT MAY BE REQUIRED

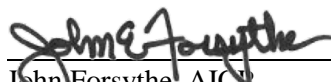
Permit/Authorization	Agency	Purpose
Local		
Encroachment Permit (ministerial)	Humboldt County	Conductor installation over/along county roads
Encroachment Permit (ministerial)	City of Eureka	Conductor installation over/along city roads
Grading Permit (ministerial)	Humboldt County	Grading of more than 50 cubic yards in one lot

Environmental Determination

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Based upon an Initial Study, it is determined that the proposed Project WOULD NOT HAVE a significant effect on the environment with the incorporation of the Applicant Proposed Measures and mitigation measures (attached). The Initial Study is available for review at the CPUC, 505 Van Ness Avenue, San Francisco, California 94102.


 John Forsythe, AICP
 Project Manager
 California Public Utilities Commission

2-10-2020

Date

TABLE ES-2
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.1 Aesthetics – Would the project:			
Impact 3.1.a: Have a substantial adverse effect on a scenic vista.	Less than Significant	<p>APM AE-1: Nighttime lighting to minimize potential visual impacts of construction activity. In the unlikely event that nighttime construction activities are necessary, measures such as use of non-glare or hooded fixtures and directional lighting will be used to reduce spillover into areas outside the construction site and minimize the visibility of lighting from off-site locations wherever feasible.</p> <p>APM AE-2: Construction Cleanup. Construction debris will be picked up regularly from construction areas. The appearance of disturbed land areas will be restored through implementation of re-contouring and/or re-vegetation.</p> <p>APM AE-4: Design and operation of staging areas to minimize potential visual impacts. Security lighting may be installed at staging areas including helicopter sites. If nighttime security lighting is required in close proximity to sensitive locations such as existing residences, it will be directional and focused to minimize potential spillover or glare with respect to areas outside the staging area, and non-glare or hooded fixtures may be utilized.</p>	Less than Significant
Impact 3.1.b: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact	None required	No Impact
Impact 3.1.c: Substantially degrade the existing visual character or quality of public views of the site and its surroundings, or since the project is in an urbanized area, whether it would conflict with applicable zoning and other regulations governing scenic quality.	Less than Significant	Implement APMs AE-2 and AE-4 (listed under Impact 3.1.a)	Less than Significant
Impact 3.1.d: Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.	Less than Significant	<p>Implement APMs AE-1, AE-2, and AE-4 (listed under Impact 3.1.a) and APM AE-3</p> <p>APM AE-3: Use of Galvanized Finish on LDSs, TSPs, and LSTs. Use of a galvanized finish that will weather to a dull, non-reflective patina on new steel poles and lattice towers will reduce potential for a new source of glare resulting from introduction of project elements.</p>	Less than Significant
3.2 Agriculture and Forestry Resources – Would the project:			
Impact 3.2.a: Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.	Less than Significant	Implement APM AE-2 (listed under Impact 3.1.a)	Less than Significant

¹ Not all APMs are included in this table. Only those APMs that were found to adequately reduce an impact to a less-than-significant level are included.

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.2 Agriculture and Forestry Resources – Would the project (cont.)			
Impact 3.2.b: Conflict with existing zoning for agricultural use, or a Williamson Act contract.	No Impact	None required	No Impact
Impact 3.2.c: Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)).	No Impact	None required	No Impact
Impact 3.2.d: Result in the loss of forest land or conversion of forest land to non-forest use.	Less than Significant	None required	Less than Significant
Impact 3.2.e: Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use	No Impact	Implement APM AE-2 (listed under Impact 3.1.a).	No Impact
3.3 Air Quality – Would the project:			
Impact 3.3.a: Conflict with or obstruct implementation of the applicable air quality plan.	Less than Significant	APM AQ-1: Minimize Fugitive Dust. PG&E will minimize fugitive dust during construction by implementing the following measures: <ul style="list-style-type: none"> • Reduce the amount of the disturbed area where possible. • Use water trucks or sprinkler systems in dry weather in sufficient quantity to prevent airborne dust from leaving the site. • Implement dust control measures as soon as possible following completion of any soil-disturbing activities. • Establish a policy that vehicle speed for all construction vehicles is not to exceed 15 miles per hour on any unpaved surface. • Water all active construction areas (including storage piles) as needed to suppress dust. Base the frequency on the type of operation and the soil and wind exposure. • Cover or maintain at least 2 feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. • Sweep adjacent public roads if visible soil material is carried out from a work site. 	No Impact

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.3 Air Quality – Would the project (cont.)			
Impact 3.3.b: Violate any air quality standard or result in a cumulatively considerable net increase in an existing or projected air quality violation.	Significant	<p>Implement APM AQ-1 (listed under Impact 3.3.a) and Mitigation Measure AQ-1</p> <p>Mitigation Measure AQ-1: Supplemental Best Management Practices. The following measures shall be implemented during the construction phase by PG&E and/or its construction contractors:</p> <ul style="list-style-type: none"> • All exposed surfaces that could cause dust (e.g., undeveloped parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered one to two times per day during dry conditions. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Construction workers will be trained on this requirement during tailboard construction trainings. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. • Post a publicly visible sign with the telephone number and person to contact at PG&E regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations. 	Less than Significant
Impact 3.3.c: Expose sensitive receptors to substantial pollutant concentrations.	Less than Significant	<p>Implement APM AQ-1 (listed under Impact 3.3.a) and APM GHG-1</p> <p>APM GHG-1: Minimize GHG Emissions.</p> <ul style="list-style-type: none"> • Maintain construction equipment in proper working conditions in accordance with PG&E standards. 	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.3 Air Quality – Would the project (cont.)			
Impact 3.3.c (cont.)		<ul style="list-style-type: none"> Minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible. Portable diesel-fueled construction equipment with engines of Minimize unnecessary construction vehicle idling time. The project will apply a “common sense” approach to vehicle use, so that idling is reduced as far as possible below the maximum of 5 consecutive minutes allowed by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Maintain construction equipment in proper working conditions in accordance with PG&E standards. 50 horsepower or larger and manufactured in 2000 or later will be registered under the CARB Statewide Portable Equipment Registration Program. Minimize welding and cutting by using compression of mechanical applications where practical and within standards. Encourage the recycling of construction waste where feasible. 	
Impact 3.3.d: Result in substantial emissions (such as odors or dust) adversely affecting a substantial number of people.	Less than Significant	None required	Less than Significant
3.4 Biological Resources – Would the project:			
Impact 3.4.a: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service	Significant	<p>APM BIO-1: Development and implementation of a Worker Environmental Awareness Program. A qualified biologist will conduct an environmental awareness program for all on-site construction personnel before they begin work on the project. Training will include a discussion of the avoidance and minimization measures that are being implemented to protect biological resources as well as the terms and conditions of project permits. Training will include information about the federal and state Endangered Species Acts and the consequences of noncompliance with these acts. Under this program, workers shall be informed of the presence, life history, and habitat requirements of all special-status species that may be affected in the project area, and about state and federal laws protecting nesting birds, wetlands, and other water resources. An educational brochure will be produced for construction crews working on the project. Color photos of special-status species will be included, as well as a discussion of relevant APMs and specific avoidance or minimization measures for special-status species and habitats.</p> <p>APM BIO-2: General Resource Protection Measures. This APM consists of the following components:</p>	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.4 Biological Resources – Would the project (cont.)			
Impact 3.4.a (cont.)		<ul style="list-style-type: none"> • <i>Litter and trash management.</i> All food scraps, wrappers, food containers, cans, bottles, and other trash will be removed from the site daily. • <i>Parking.</i> Vehicles and equipment will be parked on pavement, existing roads, developed areas, or approved construction work areas. • <i>Route and speed limitations.</i> Vehicles will be confined to established roadways or previously disturbed roadways and pre-approved access roads, overland routes, and construction work areas. Access routes and temporary construction work areas will be limited to the minimum necessary to achieve the project goals. Vehicular speeds will be limited to 15 miles per hour on unpaved roads. • <i>Maintenance and refueling.</i> All equipment will be maintained to avoid leaks of automotive fluids such as fuels, solvents, or oils. All refueling and maintenance of vehicles and other construction equipment will be restricted to designated staging areas located at least 100 feet from any down-gradient aquatic habitat, unless otherwise isolated from habitat by secondary containment. Proper spill prevention and cleanup equipment will be maintained in all refueling areas. • <i>Hazardous materials spills.</i> Emergency spill response and cleanup kits will be readily available for immediate containment and cleanup of an accidental spill. Construction crews will be trained in safe handling of hazardous materials and cleanup responsibilities. Any spills into aquatic habitat will be reported to the CPUC, USACE, State Water Resources Control Board, and the California Coastal Commission (if within the coastal zone) within 24 hours. • <i>Pets and firearms.</i> No pets, hunting, open fires (such as barbecues), or firearms will be permitted at the project site. • <i>Reporting and communication.</i> The PG&E project biologist will be responsible for immediately reporting any capture and relocation, or inadvertent harm, entrapment, or death of a federally or state listed species under ESA or CESA, respectively to the USFWS and CDFW, respectively. • <i>Restore temporarily disturbed habitats.</i> All habitat areas for special-status species that are temporarily disturbed as a result of project activities will be restored upon completion of construction. Disturbed areas will be restored to pre-project conditions in coordination with land owners and in compliance with resource agency permit conditions. Tidal marsh 	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.4 Biological Resources – Would the project (cont.)			
Impact 3.4.a (cont.)		<p>areas will be allowed to passively restore or as otherwise required by resource agency permit requirements.</p> <ul style="list-style-type: none"> • <i>Erosion control materials.</i> Only tightly woven netting or similar material will be used for all geo-synthetic erosion control materials such as coir rolls and geo-textiles. No plastic monofilament matting will be used. • <i>Minimize grading and vegetation removal along access roads and construction work areas, to the extent feasible.</i> PG&E will only trim, clear, or remove vegetation as necessary to establish the access routes and allow equipment use. Trees will be directionally felled away from sensitive biological resource areas, and if that is not possible, removed in sections. Damage to adjacent trees will be avoided to the extent possible. • <i>Weed management.</i> Vehicles and construction equipment will be cleaned of mud and dirt on site at a PG&E wash facility or otherwise approved wash-down location as needed to minimize transport of weed plant parts or seed. Vehicles will also be cleaned at the completion of the project or when off-road use for that vehicle has been completed. 	
		<p>APM BIO-3: Conduct Preconstruction Survey(s) for Special-Status Species and Sensitive Biological Resource Areas. A qualified biologist will conduct pre-construction survey(s) in areas identified in the BRTR as having habitat for special-status species and sensitive biological resource areas, either during the appropriate phenological period for plants or within 7 days prior to construction activities for wildlife. If any special-status species is encountered during the pre-construction survey(s), the PG&E project biologist will be contacted immediately. If any special-status species are found nearby but outside the construction work area, they will not be disturbed. If recommended by the biologist, a temporary silt-fence barrier may be installed to prevent special-status species from entering the construction work area(s) during project activities.</p>	
		<p>APM BIO-4: Identification and Marking of Sensitive Biological Resource Areas. Sensitive biological resources (e.g., special-status plants, wetlands) in or adjacent to construction work areas identified during the pre-construction surveys, will be clearly marked in the field and on project maps. Such areas will be avoided during construction to the extent practicable.</p>	
		<p>APM BIO-5: Biological Monitor On-Site during Construction Activities in Sensitive Biological Resource Areas. A qualified biologist will be onsite during ground-disturbing construction activities in sensitive biological resource areas identified in APM BIO-4 above unless the area has been protected by barrier fencing to protect sensitive biological resources and previously cleared by the qualified biologist. The qualified biologist will ensure implementation and compliance with all avoidance and mitigation measures and have the authority to stop or redirect work if construction activities are likely to affect sensitive biological resources.</p>	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.4 Biological Resources – Would the project (cont.)			
Impact 3.4.a (cont.)		<p>APM BIO-6: Nesting Bird Impact Avoidance and Protection. If construction work is scheduled during the nesting season (February 1 through August 31), nest detection surveys will correspond with a standard buffer for individual species in accordance with the species-specific buffers set forth in Appendix C of the PEA and will occur within 7 days prior to the start of construction to determine nesting status by a qualified biologist. Nest surveys will be accomplished by ground surveys and will support phased construction, with surveys scheduled to be repeated if construction lapses in a construction work area for 7 days between March and July. Access for ground surveys will be subject to property owner permission.</p> <p>If active nests containing eggs or young are found, the biologist will establish a species-specific nest buffer, as defined in Appendix C of the PEA. Where feasible, standard buffers will apply, although the biologist may increase or decrease the standard buffers in accordance with the factors set forth in Appendix C. Nesting pair acclimation to disturbance in areas with regularly occurring human activities will be considered when establishing nest buffers. The established buffers will remain in effect until the young have fledged or the nest is no longer active as confirmed by the biologist. Active nests will be periodically monitored until the biologist has determined that the young have fledged or once construction ends. At the discretion of the biologist, vegetation removal by hand may be allowed within nest buffers or in areas of potential nesting activity. Inactive nests may be removed in accordance with PG&E's approved avian permits. The biologist will have authority to order the cessation of nearby project activities if nesting pairs exhibit signs of disturbance.</p> <p>APM BIO-7: Special-Status Plant Impact Avoidance and Protection. Prior to the start of construction and in conjunction with APM-BIO 3, a qualified botanist will resurvey mapped populations of Lyngbye's sedge and flag or otherwise mark (e.g., stake, fence) all special-status plant populations documented adjacent to construction work areas for avoidance as feasible. After project activities have been completed at a given worksite, all staking, fencing, or flagging will be removed.</p> <p>If complete avoidance of special-status plant populations is not possible, PG&E will implement the following:</p> <ul style="list-style-type: none"> PG&E will limit driving across special-status plant populations to the greatest extent feasible. Where direct disturbance to topsoil (except excavation) is unavoidable, matting and other protection measures (e.g., rig mats, timber roads, plating, or tracked vehicles) will be used to minimize soil compaction or destruction of underground plant structures. Matting and other protection measures will be approved by a qualified biologist before work begins at that location. For any unavoidable excavation required within Lyngbye's sedge populations, the upper 6 inches of topsoil containing the plant's rhizomes will be stockpiled. PG&E will use the stockpiled topsoil to restore the area after temporary construction has been completed. 	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.4 Biological Resources – Would the project (cont.)			
Impact 3.4.a (cont.)		<p>APM BIO-8: Special-Status Amphibian and Reptile Impact Avoidance and Protection. During wet weather or the rainy season, all open holes, pits, and trenches will be protected to ensure that frogs, salamanders, and/or turtles do not become entrapped. Protective fencing, coverings, or ramps will be installed to either prevent wildlife from falling into excavations or to allow for escape. At the end of each work day, steep-walled holes or trenches more than six inches deep will be covered or provided with one or more escape ramps and/or fenced. Open excavations will be inspected each morning, prior to the start of construction activities, to ensure that no wildlife are trapped. Construction personnel will also check underneath vehicles and within materials to be moved (i.e., tires, tracks, pipes, etc.) for the presence of frogs, salamanders, and/or turtles when parked or placed near suitable aquatic or upland dispersal habitat. Any species found will be captured and relocated to an approved location as approved by the resource agencies, if required, and in compliance with any regulatory permits issued for the project.</p> <p>APM BIO-9: Implement General Protection Measures for Wetlands and Other Waters. PG&E will implement the following general measures to minimize or avoid impacts on wetlands and other waters:</p> <ul style="list-style-type: none"> • Avoid wetlands and other waters to the extent feasible. • Construction activities in wetlands will generally occur during the dry season (May 1 to October 15) to the extent feasible. • Ground-based construction activities in tidally influenced wetlands near Buhne Slough will not occur during extreme high tide events that would flood the construction work areas. • Where travel across seasonal wetlands is necessary, it will occur during dry conditions, when feasible, to avoid soil compaction or mixing. If travel is required during wet or moist conditions, temporary matting or other protection measure (e.g., rig mats, timber roads, plating, or tracked vehicles [preferably rubber tracked]) will be used to avoid soil compaction or mixing. Matting and other protection measures will be approved by a qualified biologist before construction work at that location begins. • Conduct all fueling of vehicles at least 100 feet from wetlands and other water bodies unless approved by a qualified biologist. • Set construction work areas back at least 50 feet from streams, creeks, or other water bodies unless approved by a qualified biologist. • Implement a Storm Water Pollution Prevention Plan (SWPPP) to minimize construction-related erosion and sediments from entering nearby waterways (see APM WQ-1). 	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.4 Biological Resources – Would the project (cont.)			
Impact 3.4.a (cont.)		<p>Mitigation Measure BIO-1: Pre-construction Bat Survey. A pre-construction survey for special-status bat (i.e., Townsend's big-eared bat [<i>Corynorhinus townsendii</i>] and pallid bat [<i>Antrozous pallidus</i>]) habitat shall be conducted by a qualified biologist (i.e., who is experienced in the identification of special-status bat habitat) in advance of any tree removal, to identify signs of potential bat habitat and use (e.g., basal hollows in large trees or snags, large cavities or crevices, spaces under loose/exfoliating tree bark, or deep bark fissures). Bat maternity colonies will be avoided during construction. Should potential roosting habitat, or active bat roosts be found in trees to be removed, the following measures shall be implemented:</p> <ul style="list-style-type: none"> • Tree removal shall occur outside of months of maternity roosting (approximately April 15 to August 15) and winter torpor (approximately October 31 to March 31), to the extent feasible. • Trees with maternity roosts shall be avoided during the roosting period (April 15 to August 15). If pre-construction surveys identify suitable bat roosting habitat in a tree planned for removal, a qualified biologist shall be present during tree removal. Trees shall be disturbed only when no rain is occurring or is not forecast to occur for three days and when daytime temperatures are at least 50 degrees Fahrenheit (°F). • Trimming and removal of trees containing or suspected to contain roost sites shall be done under supervision of a qualified biologist and implemented over two days. On day one, branches and limbs not containing cavities or fissures in which bats could roost shall be cut using chainsaws. The following day, the remainder of the tree, including branches or limbs containing roost sites shall be removed under the supervision of the biologist, also using chainsaws. 	
		Implement APMs WQ-1, WQ-2, HAZ-1, HAZ-2, NOI-1 (listed below under respective environmental topics: Hydrology and Water Quality; Hazards and Hazardous Materials, and Noise)	
Impact 3.4.b: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	Significant	Implement APMs BIO-1 through BIO-5 (see Impact 3.4.a).	Less than Significant
		<p>Mitigation Measure BIO-2: Habitat Restoration Plan. A qualified ecologist shall prepare and implement a restoration plan with detailed specifications for restoring all temporarily disturbed sensitive natural communities. The plan shall provide for the following:</p> <ul style="list-style-type: none"> • Pre-construction surveys by a qualified biologist of representative impact areas to characterize vegetation present. • Use of locally native, ecologically suitable species for revegetation. • Sanitation measures (e.g., locally sourced cuttings, elimination of container stock, or exclusive use of container plants grown according to plant pathogen best management practices) to prevent the introduction and/or spread of sudden oak death, other plant pathogens, and invasive plants during revegetation. • Monitoring by a qualified biologist up to a period of five years unless performance standards are met earlier, or as specified by state and federal permitting agencies. 	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.4 Biological Resources – Would the project (cont.)			
Impact 3.4.b (cont.)		<ul style="list-style-type: none"> Include minimum performance criteria for combined native and naturalized plant cover (50 percent, or equal to or greater than baseline within the monitoring period, or as specified by state and federal permitting agencies); and for maximum invasive plant cover (to return the project back to baseline conditions, or as specified by state and federal permitting agencies). 	
Impact 3.4.c: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means	Significant	Implement APMs BIO-1 through BIO-5, BIO-9, (see Impact 3.4.a), APM WQ-1, APM WQ-2 (see impact 3.10.a), APM HAZ-1, and APM HAZ-2 (see Impact 3.9.a).	Less than Significant
		APM BIO-10: Restore Temporarily Impacted Wetlands and Other Waters. All wetlands and other waters that are temporarily disturbed as a result of project activities will be restored following completion of construction in accordance with any applicable resource agency permits.	
		APM BIO-11: Compensate for Permanent Impacts on Wetlands and Other Waters in Accordance with Project Permits. PG&E will compensate for permanent impacts on wetlands by providing at least 1:1 mitigation for any unavoidable permanent impacts to wetlands and waters within the coastal zone and in compliance with resource agency permit requirements. Final compensation ratios for impacts to wetlands and waters throughout the project alignment will be based on site-specific information and finalized through discussions with the U.S. Army Corps of Engineers and the North Coast Regional Water Quality Control Board as part of the permitting processes for the project.	
Impact 3.4.d: Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	Less than Significant	None required	Less than Significant
Impact 3.4.e: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	No Impact	None required	No Impact
Impact 3.4.f: Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	No Impact	None required	No Impact

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.5 Cultural Resources – Would the project:			
Impact 3.5.a: Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines §15064.5.	No Impact	None required	No Impact
Impact 3.5.b: Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5.	Significant	APM CUL-1: Workers Environmental Awareness Training. PG&E will provide environmental awareness training on archaeological resources protection. This training may be administered by the principal cultural resource specialist (CRS) as a stand-alone training or included as part of the overall environmental awareness training as required by the project and will at minimum include: types of cultural resources or fossils that could occur at the project site; types of soils or lithologies in which the cultural resources could be preserved; procedures that should be followed in the event of a cultural resource or human remain discovery; and penalties for disturbing cultural resources.	Less than Significant
		APM CUL-2: Flag and Avoid Resources (Spiegelberg Homestead Archaeological Deposit). The archaeological deposit at the Spiegelberg Homestead is not in the PAL, but adjacent to it. There are no roadway or land improvements proposed in this location as use of this area is limited to access to a landing zone. Additionally, no pole replacements or installations are proposed at this location. However, to ensure no inadvertent impacts occur to this resource, a qualified archaeologist will establish exclusion flagging or safety fencing around the archaeological site.	
		Mitigation Measure CUL-1: This measure supersedes APM CUL-3(a) and CUL-4. If indigenous or historic-era archaeological resources are encountered during proposed Project development or operation, PG&E and/or its contractors shall immediately cease all construction activity within 100 feet of the find and flag off the area for avoidance. The CPUC and a qualified archaeologist, defined as one meeting the U.S. Secretary of the Interior's Professional Qualifications Standards for Archeology and with expertise in California archaeology, shall be immediately informed of the discovery. The qualified archaeologist shall inspect the discovery and notify the CPUC of their initial assessment. Indigenous archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (midden) containing heat-affected rocks, artifacts, or shellfish remains; stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include building or structure footings and walls, and deposits of metal, glass, and/or ceramic refuse. If the qualified archaeologist determines that the resource is or is potentially indigenous in origin, culturally affiliated California Native American Tribes shall be contacted to assess the find and determine whether it is potentially a tribal cultural resource. If the CPUC determines, based on formal evaluations of California Register-eligibility (at Public Resources Code Section 5024.1[c]) documented by the qualified archaeologist and the culturally affiliated California Native American Tribes (if the resource is indigenous), that	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.5 Cultural Resources – Would the project (cont.)			
Impact 3.5.b (cont.)		<p>the resource is either an historical resource or unique archaeological resource (as defined in CEQA Guidelines Section 15064.5 and Public Resources Code Section 21083.2), or that the resource may qualify as a tribal cultural resource (as defined in Public Resources Code Section 21074), then the resource shall be avoided if feasible. Avoidance means that no activities associated with the proposed Project that may impact cultural resources shall occur within the boundaries of the resource or any defined buffer zones. The CPUC shall determine whether avoidance is feasible considering factors such as the nature of the find, project design, costs, and other considerations. Formal significance evaluations under California Register Criterion 4 shall be guided by research designs developed by a qualified archaeologist.</p> <p>If avoidance of such a resource is not feasible, the CPUC shall consult with a qualified archaeologist, culturally affiliated California Native American Tribes (if the resource is indigenous), and other appropriate interested parties to determine treatment measures to minimize or mitigate any potential impacts to the resource pursuant to Public Resources Code Section 21083.2 and CEQA Guidelines Section 15126.4.</p> <p>If avoidance is not feasible, the CPUC shall prepare and implement an Archaeological (and/or Tribal Cultural) Resources Treatment Plan that outlines the treatment measures for the resource based on the resource's values/significance as detailed in the formal California Register-eligibility evaluation.</p> <p>Any treatment measures implemented shall be documented in a professional-level technical report (e.g., Archaeological Testing Results Report, Archaeological Data Recovery Report, Ethnographic Report, etc.), to be authored by a qualified archaeologist and filed with CHRIS. Construction work at the location of the find may commence upon completion of the approved treatment and authorization by the CPUC. Work may proceed in other parts of the C-APE while the mitigation is being carried out.</p> <p>If the CPUC determines during project implementation that portions of the C-APE may be sensitive for archaeological resources or tribal cultural resources, the CPUC may authorize construction monitoring of these locations by a qualified archaeologist and Native American monitor. Any monitoring by a Native American monitor shall be done under agreements between PG&E or their designated contractor and culturally affiliated California Native American Tribes.</p>	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.5 Cultural Resources – Would the project (cont.)			
Impact 3.5.c: Disturb any human remains, including those interred outside of dedicated cemeteries.	Less than Significant	<p>APM CUL-1: Workers Environmental Awareness Training. PG&E will provide environmental awareness training on archaeological resources protection. This training may be administered by the principal cultural resource specialist (CRS) as a stand-alone training or included as part of the overall environmental awareness training as required by the project and will at minimum include: types of cultural resources or fossils that could occur at the project site; types of soils or lithologies in which the cultural resources could be preserved; procedures that should be followed in the event of a cultural resource or human remain discovery; and penalties for disturbing cultural resources.</p> <p>APM CUL-3: Manage Unanticipated Cultural Resources Discoveries.</p> <p>a) Cultural Resources</p> <p>If cultural resources 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 PG&E CRS/archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with PG&E and other appropriate agencies. Work may continue on other portions of the site with the CRS/archaeologist's approval. PG&E will implement the CRS/archaeologist's recommendations for treatment of discovered cultural resources.</p> <p>b) Human Remains</p> <p>In keeping with the provisions provided in 7050.5 CHSC and Public Resource Code 5097.98, in the unlikely event that human remains or suspected human remains are encountered during any project-related activity, PG&E will:</p> <ol style="list-style-type: none"> 1. Stop all work within 100 feet; 2. Immediately contact the CRS, who will then notify the county coroner and the CPUC; 3. Secure the location, but do not touch or remove remains and associated artifacts; 4. Do not remove associated spoils or pick through them; 5. Record the location and keep notes of all calls and events; and 6. Treat the find as confidential and do not publicly disclose the location. <p>If the coroner determines that the remains are Native American, California Health and Safety Code 7050.5 and PRC Section 5097.98 require that the PG&E CRS contact the NAHC within 24 hours. The NAHC, as required by PRC Section 5097.98, will determine and notify the Most Likely Descendant.</p>	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.6 Energy – Would the project:			
Impact 3.6.a: Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during construction or operation.	Less than Significant	None required	Less than Significant
Impact 3.6.b: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	No Impact	None required	No Impact
3.7 Geology, Soils, and Paleontological Resources – Would the project:			
Impact 3.7.a.i: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State	No Impact	None required	No Impact
Impact 3.7.a.ii: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.	Less than Significant	None required	Less than Significant
Impact 3.7.a.iii: Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.	Less than Significant	APM GEO-1: Minimization of Construction in Soft or Loose Soils. Where soft or loose soils are encountered during project construction, appropriate measures will be implemented to avoid, accommodate, replace, or improve such soils. Depending on site-specific conditions and permit requirements, these measures may include excavating soft or loose soils and replacing them with engineered backfill materials, or installing matting in temporary work areas.	Less than Significant
		APM GEO-2: Reduction of Slope Instability during Construction. Existing natural or temporarily constructed slopes affected by construction or operations will be evaluated for stability. Grading plans will be designed to limit the potential for slope instability and minimize the potential for erosion.	
Impact 3.7.a.iv: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.	Less than Significant	Implement APM GEO-2 (listed under Impact 3.7.a.iii)	Less than Significant
Impact 3.7.b: Result in substantial soil erosion or the loss of topsoil.	Less than Significant	Implement APM WQ-1	Less than Significant
Impact 3.7.c: Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	Less than Significant	Implement APM GEO-1 and GEO-2 (listed under Impact 3.7.a.iii)	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.7 Geology, Soils, and Paleontological Resources – Would the project: (cont.)			
Impact 3.7.d: Be located on expansive or corrosive soil, creating substantial direct or indirect risks to life or property	Less than Significant	None required	Less than Significant
Impact 3.7.e: Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.	No Impact	None required	No Impact
Impact 3.7.f: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Less than Significant	<p>APM PALEO-1: Unanticipated Potential Paleontological Resource. If significant paleontological resources are discovered during construction activities, the following procedures will be followed:</p> <ul style="list-style-type: none"> Stop work immediately within 100 feet. Contact the designated project inspector and PG&E CRS immediately; Protect the site from further impacts, including looting, erosion or other human or natural damage; The PG&E CRS in tandem with CPUC will arrange for a qualified paleontologist to evaluate the discovery. The paleontologist will be responsible for developing the recovery strategy in tandem with PG&E and will lead the recovery effort, which will include establishing recovery standards, preparing specimens for identification and preservation, documentation and reporting, and securing a curation agreement from the approved agency; and, Work may not resume within 100 feet of the find until approval by the paleontologist and PG&E CRS. <p>APM PALEO-2: Worker's Environmental Awareness Training. Moderate and potentially high sensitivity formations are identified within the PAL; therefore, PG&E will provide environmental awareness training on paleontological resources protection. This training may be administered as a stand- alone training or included as part of the overall environmental awareness training as required by the project. The training will include, at minimum, the following:</p> <ul style="list-style-type: none"> The types of fossils that could occur at the project site. The types of lithologies in which the fossils could be preserved. The procedures that should be taken in the event of a fossil discovery. Penalties for disturbing paleontological resources. 	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.8 Greenhouse Gas Emissions – Would the project:			
Impact 3.8.a: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	Less than Significant	APM GHG-1: Minimize GHG Emissions. <ul style="list-style-type: none"> Maintain construction equipment in proper working conditions in accordance with PG&E standards. Minimize unnecessary construction vehicle idling time. The project will apply a “common sense” approach to vehicle use, so that idling is reduced as far as possible below the maximum of 5 consecutive minutes allowed by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Maintain construction equipment in proper working conditions in accordance with PG&E standards. Minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible. Portable diesel-fueled construction equipment with engines of 50 horsepower or larger and manufactured in 2000 or later will be registered under the CARB Statewide Portable Equipment Registration Program. Minimize welding and cutting by using compression of mechanical applications where practical and within standards. Encourage the recycling of construction waste where feasible. 	Less than Significant
Impact 3.8.b: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	No Impact	None required	No Impact
3.9 Hazards and Hazardous Materials – Would the project:			
Impact 3.9.a: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Less than Significant	APM HAZ-1: Hazardous-Substance Control and Emergency Response. PG&E will implement its hazardous substance control and emergency response procedures to ensure the safety of the public and site workers during construction. The procedures identify methods and techniques to minimize the exposure of the public and site workers to potentially hazardous materials during all phases of project construction through operation. They address worker training appropriate to the site worker’s role in hazardous substance control and emergency response. The procedures also require implementing appropriate control methods and approved containment and spill-control practices for construction and materials stored on site. If necessary to store chemicals on site, they will be managed in accordance with all applicable regulations. Material safety data sheets will be maintained and kept available. No known soil contamination was identified within the project site. In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are unearthed during site grading or excavation activities, the excavated soil will be tested, and if contaminated above hazardous waste levels, will be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil will require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations.	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.9 Hazards and Hazardous Materials – Would the project (cont.)			
Impact 3.9.a (cont.)		<p>All hazardous materials and hazardous wastes will be handled, stored, and disposed of in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. The hazardous substance control and emergency response procedures include, but are not limited to, the following:</p> <ul style="list-style-type: none"> • Proper disposal of potentially contaminated soils. • Establishing site-specific buffers for construction vehicles and equipment located near sensitive resources. • Emergency response and reporting procedures to address hazardous material spills. • Stopping work at that location and contacting the County Fire Department Hazardous Materials Unit immediately if visual contamination or chemical odors are detected. Work will be resumed at this location after any necessary consultation and approval by the Hazardous Materials Unit. <p>PG&E will complete a standard Emergency Action Plan Form as part of project tailboard meeting. The purpose of the form is to gather emergency contacts numbers, first aid location, work site location, and tailboard information.</p> <p>APM HAZ-2: Worker Environmental Awareness Program (WEAP) for Health, Safety, and Environment. The WEAP will include the following components related to hazards and hazardous materials:</p> <ul style="list-style-type: none"> • PG&E health, safety, and environmental expectations and management structure. • Applicable regulations. • Summary of hazardous substances and materials that may be handled and/or to which workers may be exposed. • Summary of the primary workplace hazards to which workers may be exposed. • Overview of the measures identified in APM HAZ-1. • Overview of the controls identified in the Stormwater Pollution Prevention Plan under APM HYDRO-1. <p>This measure will be coordinated with worker training required under APM BIO-1 and APM WQ-2.</p>	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.9 Hazards and Hazardous Materials – Would the project (cont.)			
Impact 3.9.b: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Less than Significant	Implement APMs HAZ-1 and HAZ-2 (listed under Impact 3.9.a)	Less than Significant
Impact 3.9.c: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.	Less than Significant	Implement APMs HAZ-1 and HAZ-2 (listed under Impact 3.9.a)	Less than Significant
Impact 3.9.d: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.	No Impact	None required.	No Impact
Impact 3.9.e: Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area	Less than Significant	APM TT-2: Air Traffic Control. PG&E will implement the following protocols related to helicopter use: <ul style="list-style-type: none"> PG&E will comply with all applicable FAA regulations regarding air traffic; PG&E will prepare a Helicopter Use Plan; Helicopter operators will coordinate all project helicopter operations with local airports before and during project construction; and PG&E will comply with FAA requirements for helicopter activities in residential areas that will reduce safety risks, and if necessary coordinate with residents that may need to temporarily evacuate their properties. 	Less than Significant
Impact 3.9.f: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less than Significant	Implement APMs TT-1 and TT-3 (listed under Transportation Impact 3.17.a and Impact 3.17.d).	Less than Significant
Impact 3.9.g: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.	Less than Significant	Implement Mitigation Measure WF-1, WF-2, and WF-3, listed under Wildfire Impact 3.20.b.	Less than Significant
		APM HAZ-3: Fire Risk Management. PG&E will follow its standard fire risk management procedures, including safe work practices, work permit programs, training, and fire response. Project personnel will be directed to park away from dry vegetation. During fire season, all motorized equipment driving off paved or maintained gravel/dirt roads will have federal- or state-approved spark arrestors. All off-road vehicles will be equipped with a shovel and backpack pump filled with water and all fuel trucks will carry a large fire extinguisher with minimum rating of B:C.	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.10 Hydrology and Water Quality – Would the project:			
Impact 3.10.a: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	Less than Significant	Implement APM HAZ-1 and BIO-2, which can be found in Hazards and Hazardous Materials and Biological Resources, respectively. APM WQ-1: Development and Implementation of a SWPPP. Following project approval, PG&E will prepare and implement a SWPPP to minimize construction impacts on surface water and groundwater quality. The SWPPP will be designed specifically for the hydrologic setting of the proposed project (e.g., surface topography, etc.). The SWPPP will include procedures and standards to stabilize graded areas, reduce erosion, avoid release of hazardous materials and sediment to surface waters, and manage dewatering effluents. The SWPPP will identify BMPs and erosion and sediment control measures, such as straw wattles, water bars, covers, silt fences, storm drain inlet protection, mud trackout controls, and sensitive area access restrictions (e.g., flagging) that will be installed before the onset of winter rains or anticipated storm events to minimize impacts on surface water and groundwater.	Less than Significant
Impact 3.10.a (cont.)		Mulching, seeding, or other suitable stabilization measures will be used to protect exposed areas during construction activities, as necessary. Identified erosion and control measures will be installed prior to the start of construction activities and will be inspected and improved as needed as required by the Construction General Permit and stated in the SWPPP. The SWPPP will specify that temporary sediment control measures intended to minimize sediment transport from temporarily disturbed areas such as silt fences or wattles will remain in place until disturbed areas are stabilized. In areas where soil is temporarily stockpiled, soil will be placed in a controlled area and will be managed using industry standard stockpile management techniques. Where construction activities occur near a surface water body or drainage channel, the staging of construction materials and equipment and excavation spoil stockpiles will be placed and managed in a manner that minimizes the risk of sediment transport to the drainage. The SWPPP will identify areas where refueling and vehicle-maintenance activities and storage of hazardous materials will be permitted, if necessary. A copy of the SWPPP will be provided to the CPUC for recordkeeping. The plan will be maintained and updated during construction as required by the Construction General Permit.	
Impact 3.10.b: Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Less than Significant	Implement APM WQ-1 (see Impact 3.10.a)	Less than Significant
Impact 3.10.c.i: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site.	Less than Significant	Implement APM WQ-1 (see Impact 3.10.a)	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.10 Hydrology and Water Quality – Would the project (cont.)			
Impact 3.10.c.ii: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.	Less than Significant	None required	Less than Significant
Impact 3.10.c.iii: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	Less than Significant	Implement APM WQ-1 (see Impact 3.10.a)	Less than Significant
Impact 3.10.c.iv: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows.	No Impact	None required	No Impact
Impact 3.10.d: In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.	Less than Significant	None required	Less than Significant
Impact 3.10.e: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Less than Significant	Implement APM WQ-1 (see Impact 3.10.a)	Less than Significant
3.11 Land Use – Would the project:			
Impact 3.11.a: Physically divide an established community.	No Impact	None required	No Impact
Impact 3.11.b: Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	No Impact	None required	No Impact

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.12 Mineral Resources – Would the project:			
Impact 3.12.a: Whether the Project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.	No Impact	None required	No Impact
Impact 3.12.b: Whether the Project would result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.	No Impact	None required	No Impact
3.13 Noise – Would the project:			
Impact 3.13.a: Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Significant	APM NOI-3: Notify Sensitive Receptors of Helicopter Use. Sensitive receptors within 300 feet of areas where helicopters will be used for construction will be notified by mail, personal visit, door hanger, or email at least 7 days prior to beginning helicopter activities. Notification will include posting signs in appropriate locations with a contact number to call with questions and concerns.	Less than Significant
		Mitigation Measure NOI-1a: Adherence to City of Eureka Construction Hour Restrictions. Construction activities within the City of Eureka shall be restricted to the daytime hours between 7:00 a.m. and 7:00 p.m., except as allowed pursuant to Mitigation Measure NOI-1b.	
		<p>Mitigation Measure NOI-1b: Nighttime Construction. In the event construction would be required to occur outside the hours specified in Mitigation Measure NOI-1a and within 500 feet of sensitive receptors, PG&E and/or its contractors shall implement the following measures to reduce any potential nighttime noise impacts.</p> <ul style="list-style-type: none"> Plan construction activities to minimize the amount of nighttime construction. When nighttime construction activities take place within 200 feet of noise sensitive receptors, use portable construction noise barriers, such as paneled noise shields, barriers, enclosures, or sound curtains adjacent to or around loud stationary equipment. Noise control shields shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield. Offer temporary relocation of residents within 200 feet of nighttime construction activities that would occur after 10:00 p.m. The notification requirements in APM NOI-2 shall be extended to include residences within 500 feet of planned nighttime construction activities. All residents within 500 feet of the proposed nighttime construction site(s) shall be notified at least 7 days in advance by mail, personal visit, door hanger, or e-mail and informed of the expected work schedule. 	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.13 Noise – Would the project (cont.)			
Impact 3.13.a (cont.)		<p>Mitigation Measure NOI-1c: Construction Noise Management Plan. PG&E and/or its contractors shall implement the measures identified below to ensure that construction noise levels are reduced to 90 dBA L_{eq} or less at sensitive receptors located within 100 feet.</p> <ol style="list-style-type: none"> 1. Comply with manufacturer's muffler requirements on all construction equipment engines and ensure exhaust mufflers are in good condition; 2. Turn off construction equipment when not in use, where applicable; 3. Locate stationary equipment, construction staging areas, helicopter landing zones, and construction material areas as far as practical from sensitive receptors; 4. Include noise control requirements for construction equipment and tools in specifications provided to construction contractors to the maximum extent practicable, including performing all work in a manner that minimizes noise; using equipment with effective mufflers; undertaking the noisiest activities during times of least disturbance to surrounding residents and occupants; and selecting haul routes that avoid residential areas; 5. PG&E shall provide notice by mail at least 1 week prior to construction activities to all sensitive receptors and residences within 500 feet of construction sites, staging yards, and access roads, and within 1,000 feet of helicopter landing zones and flight paths. PG&E shall also post notices in public areas, including recreational use areas, within 500 feet of the Project alignment and construction work areas. The announcement shall state approximately where and when construction will occur in the area. For areas that would be exposed to helicopter noise, the announcement shall provide approximate details on the schedule of the dates, times, and duration of helicopter activities. Notices shall provide tips on reducing noise intrusion, for example, by closing windows facing the planned construction. PG&E shall identify and provide a public liaison before and during construction to respond to concerns of neighboring receptors, including residents, about construction noise disturbance. PG&E shall also establish a toll-free telephone number for receiving questions or complaints during construction and develop procedures for responding to callers. Procedures for reaching the public liaison officer via telephone or in person shall be included in the above notices and also posted conspicuously at the construction site(s). PG&E shall address all complaints within 1 week of when the complaint is filed. PG&E shall provide monthly reports with records of complaints and responses to the CPUC. These reports shall be provided to the CPUC within 15 days of the end of the month. 	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.13 Noise – Would the project (cont.)			
Impact 3.13.a (cont.)		6. When construction activities take place within 100 feet of noise sensitive areas, use portable construction noise barriers such as paneled noise shields, barriers, or enclosures, or sound curtains adjacent to or around loud stationary equipment. Noise control shields shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield. Noise control shields with a minimum performance rating of STC-25 and Noise Reduction Coefficient (NRC) of 0.75 are capable of attenuating noise levels by up to 15 dBA. 7. Route all construction traffic via designated truck routes where possible and prohibit construction related heavy truck traffic in residential areas where feasible.	
Impact 3.13.b: Generation of, excessive groundborne vibration or groundborne noise levels.	Less than Significant	None required	Less than Significant
Impact 3.13.c: Be located within the vicinity of a private airstrip or an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels.	Less than Significant	None required	Less than Significant
3.14 Population and Housing – Would the project:			
Impact 3.14.a: The Project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).	Less than Significant	None required	Less than Significant
Impact 3.14.b: The Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	No Impact	None required	No Impact

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.15 Public Services – Would the project:			
Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:			
Impact 3.15.a.i: Fire protection.	Less than Significant	Implement APM HAZ-3 (see Impact 3.9.g); APM WF-3 (see Impact 3.20.b); and TT-3 (see Impact 3.17.d).	Less than Significant
Impact 3.15.a.ii: Police protection.	Less than Significant	Implement APM TT-3 (see Impact 3.17.d).	Less than Significant
Impact 3.15.a.iii: Schools.	No Impact	None required	No Impact
Impact 3.15.a.iv: Parks.	No Impact	None required	No Impact
Impact 3.15.a.v: Other public facilities.	No Impact	None required	No Impact
3.16 Recreation – Would the project:			
Impact 3.16.a: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	Less than Significant	APM REC-1: Coordination and Signage. PG&E will coordinate with the operators of the Redwood Fields Ballpark, Redwood Acres Fairgrounds, and McKay Community Forest during project construction activities to minimize any potential construction impacts from the project. Signage notifying of construction activities will be posted at these recreational facilities at least one week in advance of construction.	Less than Significant
Impact 3.16.b: Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	No Impact	None required	No Impact

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.17 Transportation – Would the project:			
Impact 3.17.a: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.	Less than Significant	APM TT-1: Temporary Traffic Controls. PG&E will obtain necessary transportation and encroachment permits from Caltrans and the local jurisdictions, as required, including those related to State Route crossings and the transport of oversized loads and certain materials, and will comply with permit requirements designed to prevent excessive congestion or traffic hazards during construction. PG&E will develop road and lane closures or width reduction or traffic diversion plans as required by the encroachment permits. Construction activities that are in, along, or cross local roadways will follow best management practices and local jurisdictional encroachment permit requirements, which may include traffic controls such as signs, cones, and flaggers to minimize impacts on traffic and transportation in the Project area. PG&E will coordinate with ETS regarding the schedule and scope of construction activities that could interfere with bus routes crossed by the Project alignment and will coordinate temporary relocation of bus stops if necessary.	Less than Significant
Impact 3.17.b: Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.	Less than Significant	None required	Less than Significant
Impact 3.17.c: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	Less than Significant	Implement APM TT-1 (see Impact 3.17.a)	Less than Significant
Impact 3.17.d: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Less than Significant	Implement APM TT-1 (see Impact 3.17.a)	Less than Significant
		APM TT-3: Coordination Road Closures with Emergency Service Providers and School Districts. At least 24 hours prior to implementing any road or lane closure, PG&E will coordinate with applicable emergency service providers and school districts in the Project vicinity. PG&E will provide information regarding the road or lanes to be closed, the anticipated date, time, and duration of closures, and a contact telephone number.	
3.18 Tribal Cultural Resources – Would the project:			
Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is.			
Impact 3.18.a.i: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	Significant	Implement APM CUL-1 and Mitigation Measure CUL-1 (see Impact 3.5.b and 3.5.c)	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.18 Tribal Cultural Resources – Would the project: (cont.)			
Impact 3.18.a.ii: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Significant	Implement APM CUL-1 and Mitigation Measure CUL-1 (see Impact 3.5.b. and 3.5.c)	Less than Significant
3.19 Utilities and Service Systems – Would the project:			
Impact 3.19.a: Require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	No Impact	Implement APM GEO-2 (see Impact 3.7.a.iii) and APM WQ-1 (see Impact 3.10.a) which can be found under Geology and Soils, and Hydrology and Water Quality, respectively.	No Impact
Impact 3.19.b: Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	No Impact	None required	No Impact
Impact 3.19.c: Not result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	No Impact	None required	No Impact
Impact 3.19.d: Generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure	Less than Significant	None required	Less than Significant
Impact 3.19.e: Comply with federal, state, and local management and reduction statutes and regulations related to solid waste	Less than Significant	None required	Less than Significant
3.20 Wildfire – Would the project:			
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:			
Impact 3.20.a: Substantially impair an adopted emergency response plan or emergency evacuation plan	Less than Significant	Implement APMs TT-1 (see impact 3.17.a) and APM TT-3 (see Impact 3.17.d), listed under Transportation.	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.20 Wildfire – Would the project (cont.)			
Impact 3.20.b: Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	Less than Significant	Implement APMs HAZ-3 (see Impact which can be found in Hazards and Hazardous Materials, located above.	Less than Significant
		APM WF-1: Smoking and Fire Rules. Smoking will not be permitted on site, except in barren areas that measures a minimum of 20 feet in diameter and are cleared to mineral soil. Under no circumstances will smoking be permitted during the fire season (approximately July through October) while employees are operating equipment, or while walking or working in grass and woodlands.	
		APM WF-2: Carry Emergency Fire Suppression Equipment. PG&E construction crew trucks and large equipment shall have, at a minimum, a standard roundpoint shovel and a fire extinguisher. If construction activities likely to cause sparks (e.g., welding, grinding, or grading in rocky terrain) are conducted, emergency fire tool boxes shall be readily available to crews. The emergency fire tool boxes shall contain fire-fighting items such as shovels, axes, and water.	
		APM WF-3: Construction Fire Prevention Plan. PG&E shall prepare a Construction Fire Prevention Plan consistent with the measures identified in APM HAZ-3, Fire Risk Management, that addresses procedures for fire prevention at active construction sites. The Construction Fire Prevention Plan shall include requirements for carrying emergency fire suppression equipment, conducting “tailgate meetings” that cover fire safety discussions, restricting smoking, idling vehicles, and restricting construction during red flag warnings. The Construction Fire Prevention Plan shall address the following fire risk reduction measures: <ul style="list-style-type: none"> • Training and briefing all personnel working on the project in fire prevention and suppression methods. • Conducting a fire prevention discussion at each morning’s safety meeting. • Storage of prescribed fire tools and backpack pumps with water within 50 feet of work activities. • Assigning personnel to conduct a “fire watch” or “fire patrol” to ensure that risk mitigation and fire preparedness measures are implemented, immediate detection of a fire, and to coordinate with emergency response personnel in the event of a fire. The Construction Fire Prevention Plan will be submitted to the CPUC for review at least 30 days prior to construction	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM) ¹ and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.20 Wildfire – Would the project (cont.)			
Impact 3.20.c: Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.	Less than Significant	None required	Less than Significant
Impact 3.20.d: Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes	Less than Significant	Implement APMs WF-1, WF-2, WF-3 (see Impact 3.20.a, 3.20.b) and HAZ-3 (see Impact 3.9.g).	Less than Significant

CHAPTER 1

Introduction

On February 7, 2019, Pacific Gas and Electric Company (PG&E) submitted a Permit to Construct (PTC) Application (A.19-02-004) to the California Public Utilities Commission (CPUC) for the PG&E Humboldt Bay-Humboldt No. 1 60kV Reconductoring Project (Project). Upon review of the Proponent's Environmental Assessment (PEA), the CPUC's Energy Division notified PG&E that its PTC application was complete on April 18, 2019. PG&E proposes to reductor approximately 7.8 miles of the Humboldt Bay-Humboldt #1 60kV Power Line (HB-H #1 line), a single-circuit power line in Humboldt County, as described in further detail in Chapter 2, Project Description. Pursuant to the requirements of the California Environmental Quality Act (CEQA), the CEQA Guidelines, and the CPUC General Order (GO) 131-D, the CPUC has prepared an Initial Study (IS) to evaluate potential environmental impacts of the Project.

If, following preparation of an IS, there is no substantial evidence of significant environmental effects, or if potential significant effects can be reduced to a point where clearly no significant effect on the environment would occur, a Negative Declaration shall be prepared (Pub. Res. Code §21080(c)(1)). If an IS prepared for a project indicates that significant environmental effect(s) that cannot be mitigated to a less than significant level could occur, the CPUC shall prepare an Environmental Impact Report (EIR).

A Mitigated Negative Declaration (MND) may be prepared 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 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 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” (Pub. Res. Code §21064.5). The CPUC has determined, based on the results of the IS, that the appropriate type of CEQA documentation for this Project is an MND.

This IS/MND identifies the potential environmental effects of the Project, evaluates their level of significance, and identifies the revisions in the Project agreed to by PG&E that would avoid the effects or mitigated them below the level of significance. Specifics of the Project described and analyzed in this Draft IS/MND are based on PG&E's Application for a PTC, the Proponent's Environmental Assessment (PEA) (PG&E, 2019), PG&E's responses to deficiency letters and data requests by the CEQA team (PG&E, 2019a). This information is intended to describe construction, operations, and maintenance requirements and activities to inform an analysis of the Project's environmental effects. This Draft IS/MND evaluates the Project using the CEQA Appendix G checklist questions.

1.1 CEQA Process

The CPUC determined that the Project, with proposed mitigation measures incorporated, would not have a significant adverse effect on the environment. Therefore, this Draft IS/MND has been prepared.

On February 12, 2020, the CPUC filed a Notice of Completion (NOC) with the Governor's Office of Planning and Research, State Clearinghouse, published a Notice of Intent (NOI) to Adopt a Mitigated Negative Declaration, and released this Draft IS/MND for a 30-day public review period. The Draft IS/MND was distributed to federal, State, and local agency representatives, and the NOI was distributed to property owners within 300 feet of the Project and to other interested organizations and individuals, as outlined in **Appendix A** of this Draft IS/MND. Legal notice will appear on February 12, 2020 in the Eureka Times-Standard announcing the availability of the Draft IS/MND for public review in compliance with CEQA.

1.2 Public Review Process

On February 12, 2020, the CPUC mailed a notice to relevant agencies, organizations, and individuals residing in the Project area, announcing that the Draft IS/MND was available for public review (recipients are identified in Appendix A). The CPUC established a Project voice mail phone number (707) 796-7011, e-mail address (CPUCHumboldtReconductoring@esassoc.com), and Project web site (<https://www.cpuc.ca.gov/environment/info/esa/humboldt/index.html>) to enable the public to ask questions, provide comments, and obtain additional information about the Project and the analysis in the Draft IS/MND.

In accordance with Section 15105(b) of the CEQA Guidelines, the public review and comment period begins on February 12, 2020 and ends at 5:00 p.m. on March 13, 2020. Copies of all written comments on the Draft IS/MND that are received during this comment period will be included in the Final IS/MND.

1.3 CPUC Jurisdiction

The CPUC has sole and exclusive State jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order No. 131-D, Section XIV.B:

“Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters.”

Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the counties’ and cities’ land use regulations are not applicable to the Project as local jurisdictions do not have jurisdiction over the Project. Accordingly, the discussion of local regulations in this IS/MND is provided for informational purposes only.

1.4 References

Pacific Gas and Electric Company (PG&E), 2019. Application of Pacific Gas and Electric Company for a Permit to Construct the Humboldt Bay-Humboldt #1 60kV Reconductoring Project, filed February 7, 2019.

PG&E, 2019a. PG&E Humboldt Bay-Humboldt #1 60kV Reconductoring Project, PG&E Response to Data Request No. 1, dated August 9, 2019.

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CHAPTER 2

Project Description

2.1 Introduction

Pacific Gas and Electric Company (PG&E), in its California Public Utilities Commission (CPUC) Application filed February 7, 2019, requests to maintain electric transmission system reliability in the City of Eureka and surrounding areas by replacing the conductor (reconductoring) and replacing poles on approximately 7.8 miles of the Humboldt Bay-Humboldt #1 60 kV Power Line (HB-H #1 line), a single-circuit power line in Humboldt County. The application includes the Proponent's Environmental Assessment (PEA) prepared pursuant to Rule 2.4 of the CPUC's Rules of Practice and Procedure.

The Humboldt Bay-Humboldt #1 60 kV Reconductoring Project (Project) would replace the existing conductor (reconductor) with weather-resistant, heavier conductor and supporting structures to reduce the frequency of outages, complete necessary maintenance, and address an existing curtailment issue to reinforce the existing power line system. Along the beginning 0.6 mile of the Project alignment, the HB-H #1 line runs parallel to the Humboldt Bay-Eureka 60 kV Power Line (HB-E line). Along that segment, PG&E also would reconductor the HB-E line and install the new wire onto one shared tubular steel pole (TSP) and shared transmission towers to reduce the number of structures in wetland areas. In addition, PG&E would remove one pole from the Humboldt Bay-Humboldt #2 60 kV Power Line (HB-H #2) and would move the existing conductor onto a shared TSP. Modifications made to HB-H #1, HB-E, and HB-H #2 lines comprise the proposed Project. No substation work is anticipated as part of this Project, with the possible exception of some minor changes to the switches inside Humboldt Bay Substation and Humboldt Substation.

The existing HB-H #1 line is located within existing PG&E right-of-way (ROW) and PG&E easements. PG&E anticipates using the existing alignment, and accordingly, no new easements are anticipated at this time for the Project. PG&E may update or clarify its existing easement rights prior to construction. Temporary construction easements may be obtained to accommodate pull sites, staging areas, and landing zones located outside of existing easements or ROWs.

This IS/MND identifies the potential environmental effects of the Project, evaluates their level of significance, and identifies the revisions in the Project agreed to by PG&E that would avoid the effects or mitigate them below the level of significance. The information presented here is based on PG&E's Application and Proponent's Environmental Assessment (PEA) (PG&E, 2019), and PG&E's responses to data requests (PG&E, August 9, 2019). 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 Project is located in unincorporated Humboldt County and the City of Eureka (see **Figure 2-1**). The Project begins at Humboldt Bay Substation located south of Eureka and west of Spruce Point in an industrial area west of Highway 101. From Humboldt Bay Substation, the Project heads northeast through unincorporated Humboldt County, traverses four waterways (Buhne Slough, Elk River, Martin Slough, and Ryan Slough) and approximately 0.4-mile within the City of Eureka, then back through Humboldt County, terminating at Humboldt Substation located east of Eureka near Myrtle Avenue. The line crosses intertidal wetlands, floodplains, multiple roads (including Highway 101), agricultural lands, the McKay Community Forest and nearby recreational facilities, and residential areas in unincorporated Humboldt County and the City of Eureka.

2.3 Existing System

Power generated at the 163-megawatt (MW) Humboldt Bay Generating Station is converted to transmission voltage at Humboldt Bay Substation and then transported to regional substations through a system of existing 60 kV and 115 kV power lines, including the following 60 kV lines: HB-H #1, the HB-H #2, and HB-E. Together, these lines form a power path that includes Humboldt, Harris, and Eureka A and E substations, serving customers in the City of Eureka and the surrounding unincorporated areas of Humboldt County.

In addition to providing power to and from Humboldt Bay Substation, the HB-H #1 line acts as a critical back tie to transmission system reliability in the event of an outage on the HB-H #2 and HB-E lines. When these lines are out, all of the 60 kV power produced at the Humboldt Bay Generating Station must be delivered through the HB-H #1 line. Power generation at the generating station must be curtailed when HB-H #1 is the sole line in operation due to the current size of the existing conductors. Without curtailment, outages can occur. To prevent future outages, maintain transmission system and grid reliability, and provide sufficient back up capacity when one of the other two 60 kV lines on the system are out of service, PG&E proposes to replace the conductor on the HB-H #1 line and replace the existing structures to hold the new, heavier conductor, which would also better withstand the coastal elements. The proposed Project would improve the reliability of the system and would address the curtailment issue caused when HB-H #1 acts as a critical back tie line.



SOURCE: PG&E

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 2-1
Project Location

2.4 PG&E's Project

The Project consists of the following activities; a more detailed description of the individual components is included in Section 2.5. See Figures 2-2 through 2-5 for detailed alignment maps of the proposed Project.

2.4.1 Humboldt Bay-Humboldt #1 Line Reconductoring

- Replace 7.8 miles of bare single-circuit 60 kV conductors and insulators with a larger-diameter aluminum, specular conductor;
- Remove six wood poles from wetland areas and replace 90 existing wood poles with approximately 52 wood poles and 38 light duty steel (LDS) poles, one TSP, and four lattice steel towers (LSTs);
- Replace eight LDS poles with five wood poles and three LDS poles;
- Add one new wood interset pole with down guys;
- Reframe or replace insulators on approximately 10 existing poles to meet current General Order (GO) 95 requirements;
- Replace an existing manual switch with a supervisory control and data acquisition (SCADA) switch on a new engineered direct embedded steel pole, replacing a wood pole;
- Replace seven existing stub wood poles with seven new wood stub poles;
- Shorten four wood poles (with distribution underbuild); and
- Transfer existing distribution lines, communication facilities, and streetlights from existing poles to new poles or structures, as necessary.

2.4.2 Humboldt Bay-Eureka Line Reconductoring

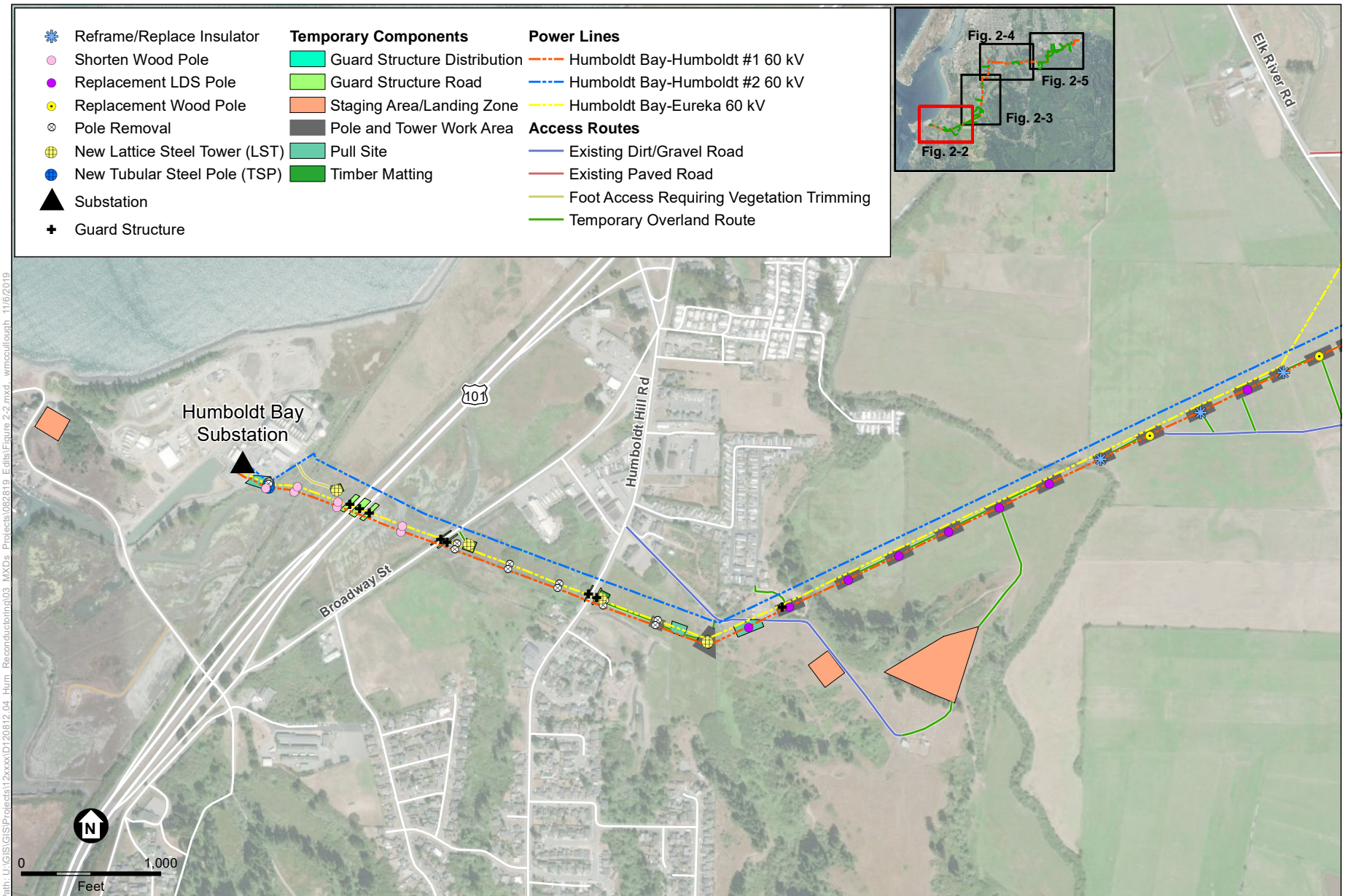
For the first 0.6-mile east of Humboldt Bay Substation, the existing HB-E line parallels the HB-H #1 line on a separate line of wood poles. Along this segment, PG&E would:

- Relocate the first span of the HB-E line immediately east of Humboldt Bay Substation to a new TSP with HB-H #2 line, co-locate the HB-E line with the HB-H #1 line on its four new LSTs, and replace the existing conductor.
- Remove seven wood poles and shorten three wood poles (with distribution underbuild).

2.4.3 Humboldt Bay-Humboldt #2 Line Relocation

Immediately east of Humboldt Bay Substation, PG&E would:

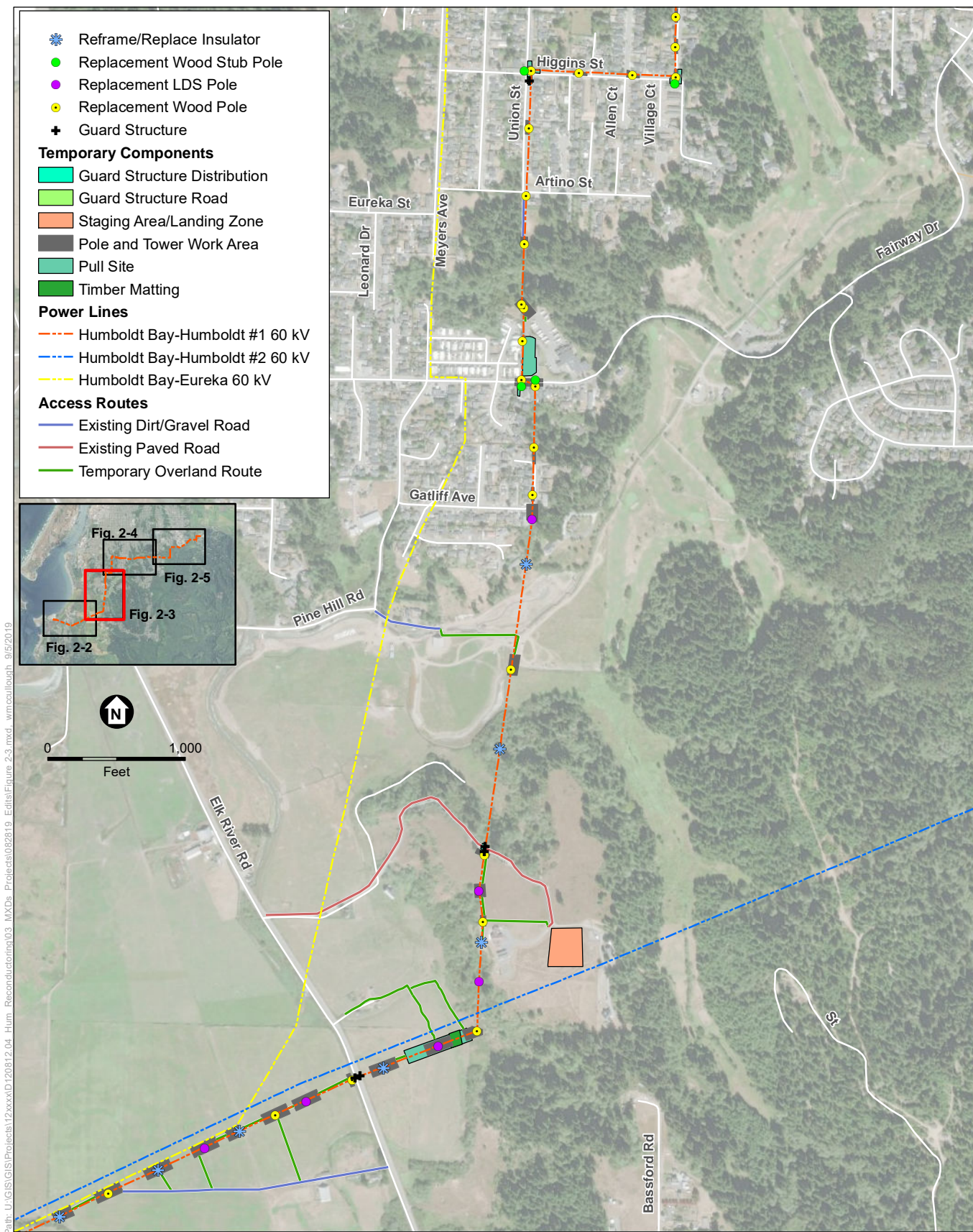
- Remove a single wood pole and move the line onto the new double circuit TSP on the HB-E line.



SOURCE: PG&E, 2019

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 2-2
Proposed Project: Detailed Alignment (Panel 1 of 4)

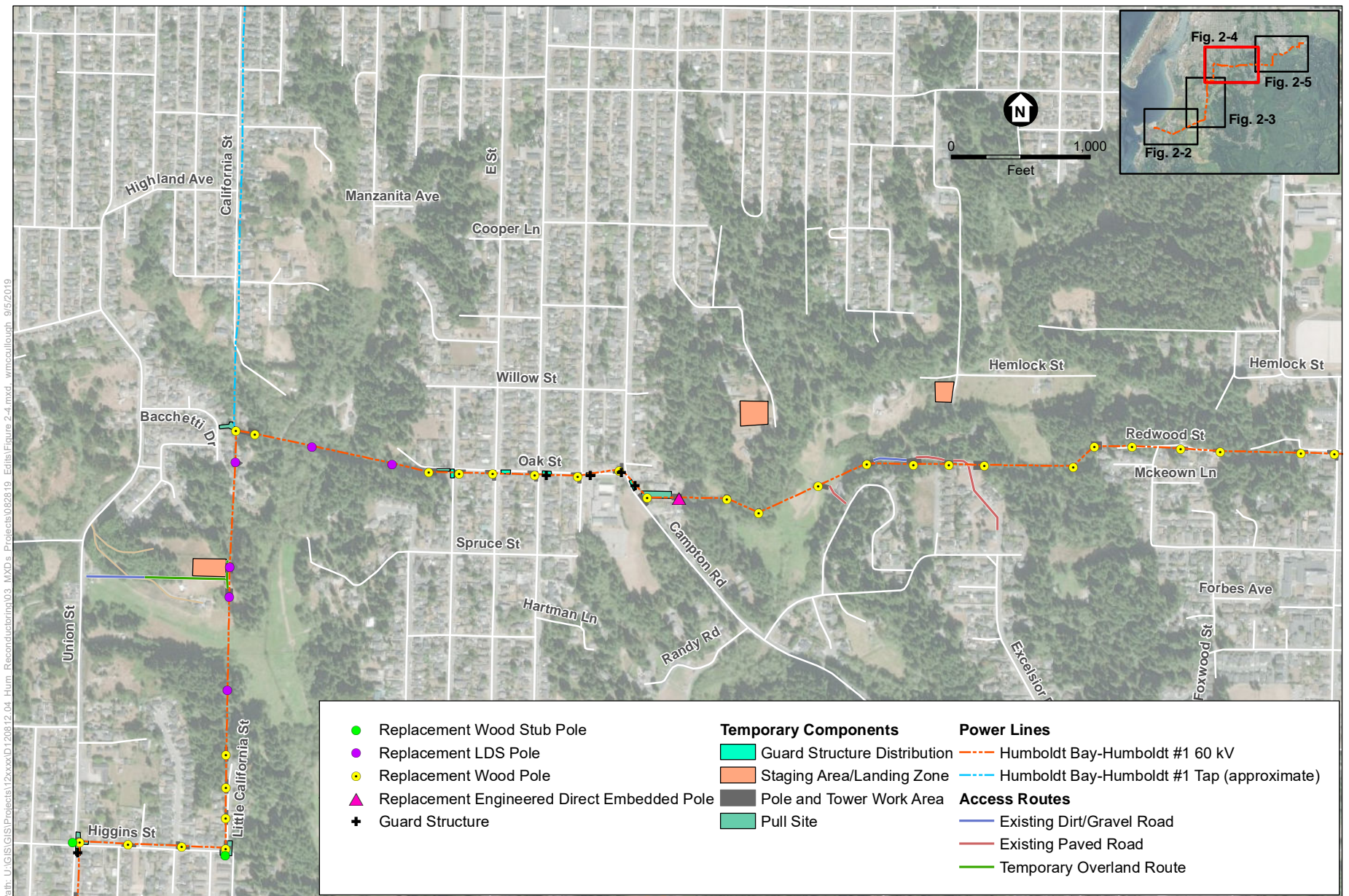


SOURCE: PG&E, 2019

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 2-3

Proposed Project: Detailed Alignment (Panel 2 of 4)

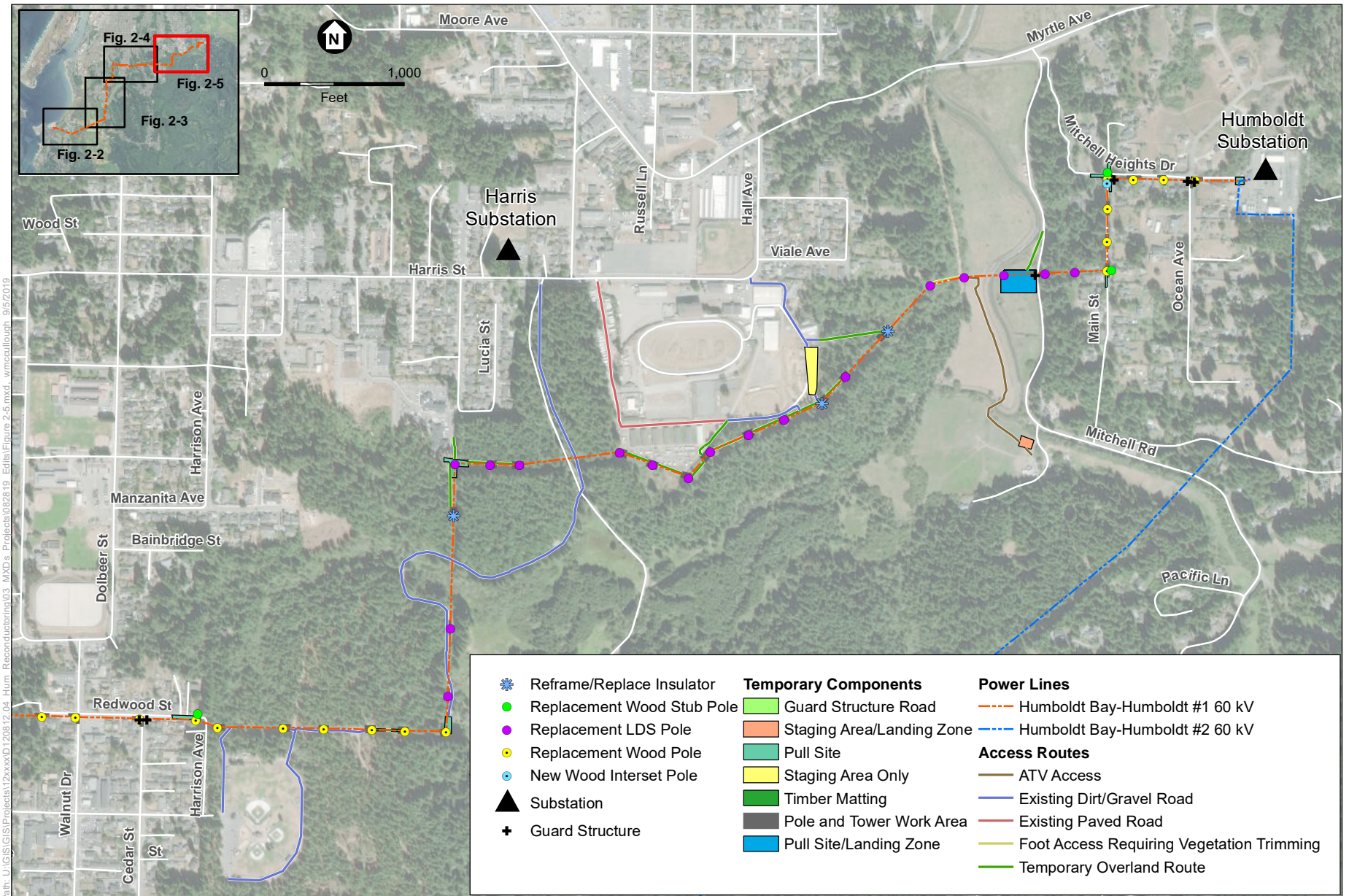


SOURCE: PG&E, 2019

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 2-4

Proposed Project: Detailed Alignment (Panel 3 of 4)



SOURCE: PG&E, 2019

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 2-5

Proposed Project: Detailed Alignment (Panel 4 of 4)

2.5 Project Components

The proposed Project would replace existing conductor along 7.8 miles of the HB-H #1 line and 0.6-mile of the HB-E line.

Just east of Humboldt Bay Substation, two new TSPs would be installed, one to support the HB-H #1 line and the other to support the HB-E line. Additionally, one single wood pole would be removed from the HB-H #2 line. At this location, the HB-H #2 line would be relocated to the new TSP supporting the HB-E line. The single pole removal and line relocation constitute the only work conducted on the HB-H #2 line.

Along the first 0.6-mile of the proposed Project, approximately 14 existing wood poles along the HB-H #1 line, HB-H #2 line, and the HB-E line would be removed and approximately seven wood poles would be shortened. Along this portion of the Project, the HB-H #1 and HB-E lines would be supported by the new TSPs and four new LSTs. The HB-E line would be co-located with the HB-H #1 line on the new LSTs. After 0.6-mile, both the HB-E and HB-H#1 lines turn to travel northeast. This location marks the location of the last LST along the Project alignment as well as the conclusion of modifications made to the HB-E line. The remainder of work along the Project alignment would include reconductoring and pole replacements and removal along the HB-H #1 line.

Modifications made to the remainder of the HB-H #1 line include the replacement of existing conductor, the replacement of 90 existing wood poles and eight LDS poles with 57 wood poles, 41 LDS poles, and one wood interset pole. The Project would replace seven existing wood stub poles with new ones, replace an existing manual switch on a wood pole with a SCADA switch on a new engineered direct embedded steel pole, and reframe or replace insulators on ten existing poles.

A summary of the key components of the Project is provided in **Table 2-1**. A more detailed summary of Project components is provided below.

2.5.1 Replacement Conductor

Existing conductors and connectors would be replaced along 7.8 miles of the single-circuit HB-H #1 line and 0.6-mile of the adjacent HB-E line with larger diameter aluminum conductors to better withstand the coastal climate, reduce future maintenance requirements on the line, and address an existing curtailment issue at Humboldt Bay Generating Station. The new conductor would increase summer normal ratings from 36 to 73 MW. Existing insulators on tangent structures would primarily be replaced with composite insulators, and insulators on dead-end and other structures would primarily be replaced with glass or ceramic insulators, including insulators on the new LSTs.

TABLE 2-1
SUMMARY OF PROJECT COMPONENTS

Humboldt Bay-Humboldt #1 Power Line

- *Length of line being modified:* 7.8 miles.
- *Conductor:* Replace existing 336 kcmil¹ diameter aluminum and copper conductors, and connectors, with 715.5 kcmil diameter aluminum specular conductor.
- *Poles and Towers:* Remove 6 wood poles. Replace 90 existing wood poles with 52 wood poles, 38 LDS poles, one TSP, and 4 LSTs. Replace 8 LDS poles with 5 wood poles and 3 LDS poles. Add one new wood interset pole with down guys. Add one new TSP. Replace seven existing stub wood poles with seven wood stub poles. Shorten four wood poles (with a distribution underbuild).
- *Pole heights:* 43 to 90 feet above ground surface (ags).
- *Tower heights:* 85 to 115 feet ags
- *Span lengths:* Between 33 to 1,022 feet
- *Insulators:* Reframe or replace insulators on approximately 10 existing poles to meet current GO 95 requirements;
- *Footings:* TSPs will be attached to a concrete foundation. LSTs will be installed on four concrete footings; wood and LDS poles would be direct buried and would not have foundations.

Humboldt Bay-Eureka Power Line

- *Length of line being modified:* 0.6-mile.
- *Conductor:* Replace existing 336 kcmil diameter aluminum and copper conductors, and connectors, with 715.5 kcmil diameter aluminum specular conductor.
- *Poles:* Remove 7 wood poles and shorten 3 wood poles (with distribution underbuild). Relocate line onto a new TSP near the Humboldt Bay Substation and the four new HB-H #1 LSTs.
- *Pole height (TSP):* 67 to 77 feet ags

Humboldt Bay- Humboldt #2 Power Line

- *Poles:* Remove one wood pole near the Humboldt Bay Substation. Relocate line onto new TSP proposed as part of modifications to the HB-E line.
- *Pole height (TSP):* 67 to 77 feet ags

Substation Modifications

- No substation work is anticipated as part of this project, with the possible exception of some minor changes to the switches inside Humboldt Bay and Humboldt substations.

SOURCE: PG&E, 2019.

2.5.2 Replacement and Modified Structures

Existing treated wood poles and LDS poles would be replaced primarily with wood poles and LDS poles. Types of replacement poles are described below. Construction methodologies and specifications are detailed in Section 2.7.7, Power Line Construction. Tangent poles, which do not require any external type of support, would be used when the run of poles continues in a straight line. Dead-end poles, which are stronger, would be used at the end of each reel of conductor (approximately 4,500 feet) or at angle changes or high strain locations.

The distance between any two consecutive poles or towers (spans) would vary between 33 feet and 1,022 feet. Increased span length and pole and structure heights are necessary to accommodate the new conductor sway and suspension style, provide adequate ground-to-conductor clearance

¹ kcmil equals one thousand circular mils (mil=one thousandth of an inch), or 0.5067 mm²; a circular mil is the area of wire one mil in diameter.

(including spans across water crossings, roads, and Highway 101), and to reduce the number of replacement structures in wetlands. Pole designs and conductor separation distance would meet raptor safety requirements.

**TABLE 2-2
SUMMARY OF TYPICAL STRUCTURE DIMENSIONS**

Structure Feature	Structure Type	Approximate Metrics
Pole Diameter (Tip)	Wood Pole	8 to 11 inches
	Light Duty Steel Pole	8 to 12 inches
	Tubular Steel Pole	20 to 30 inches
	Lattice Steel Tower	N/A
Pole Diameter (Base)	Wood Pole	15 to 22 inches
	Light Duty Steel Pole	15 to 22 inches
	Tubular Steel Pole	36 inches
	Lattice Steel Tower	N/A
Approximate Height Above Ground	Wood Pole	47 to 90 feet
	Light Duty Steel Pole	43 to 83 feet
	Tubular Steel Pole	67 to 77 feet
	Lattice Steel Tower	85 to 115 feet
Auger Hole Depth	Wood Pole	7 to 11 feet
	Light Duty Steel Pole	8 to 14 feet
	Tubular Steel Pole	30 feet
	Lattice Steel Tower	20 to 30 feet drilled pier / 60 feet micropile
Maximum Excavation	Wood Pole	78 cubic feet
	Light Duty Steel Pole	135 cubic feet
	Tubular Steel Pole	850 cubic feet
	Lattice Steel Tower	270 to 3,400 cubic feet
Permanent Footprint	Wood Pole	1 square foot
	Light Duty Steel Pole	1 square foot
	Tubular Steel Pole	28 square feet
	Lattice Steel Tower (each footing)	28 square feet (drilled) / 5 square feet (micropile array); 35 square feet (cap)
Average Pole/Tower Work Area	Wood Pole	0.2 acre
	Light Duty Steel Pole	0.3 acre
	Tubular Steel Pole	0.3 acre
	Lattice Steel Tower	0.3 acre

SOURCE: PG&E, 2019.

Replacement TSPs and LSTs would be installed on foundations, requiring a total of approximately 180 cubic yards of concrete. Replacement TSPs, LDS poles, and LSTs would be galvanized and dull gray in color. The structures in the first 0.6-mile would support a double circuit line, with three conductors on each side. One TSP would be double circuit and the other a single circuit. Along the remainder of the Project alignment (approximately 7.2 miles),

replacement structures would support a single circuit line consisting of three conductors, typically with one conductor on each side of the pole and one above the pole. The existing poles would be removed following installation of the new poles and conductors and will be disposed of at an appropriate landfill. Seven wood poles would be left in place and shortened or “topped” to support distribution or communication lines.

Tubular Steel Poles

Two new TSPs would be installed on PG&E property adjacent to Humboldt Bay Substation—one would support the HB-H #1 line and the other would support both the HB-H #2 line and the HB-E line, which would allow two existing wood poles to be removed. The TSPs for this Project would range in height from 67 feet to 77 feet tall and would be galvanized and a dull gray color. The TSPs would be 3 feet in diameter at the base and would be attached to a concrete foundation measuring 6 feet in diameter. A typical TSP design is shown in **Figure 2-6**.

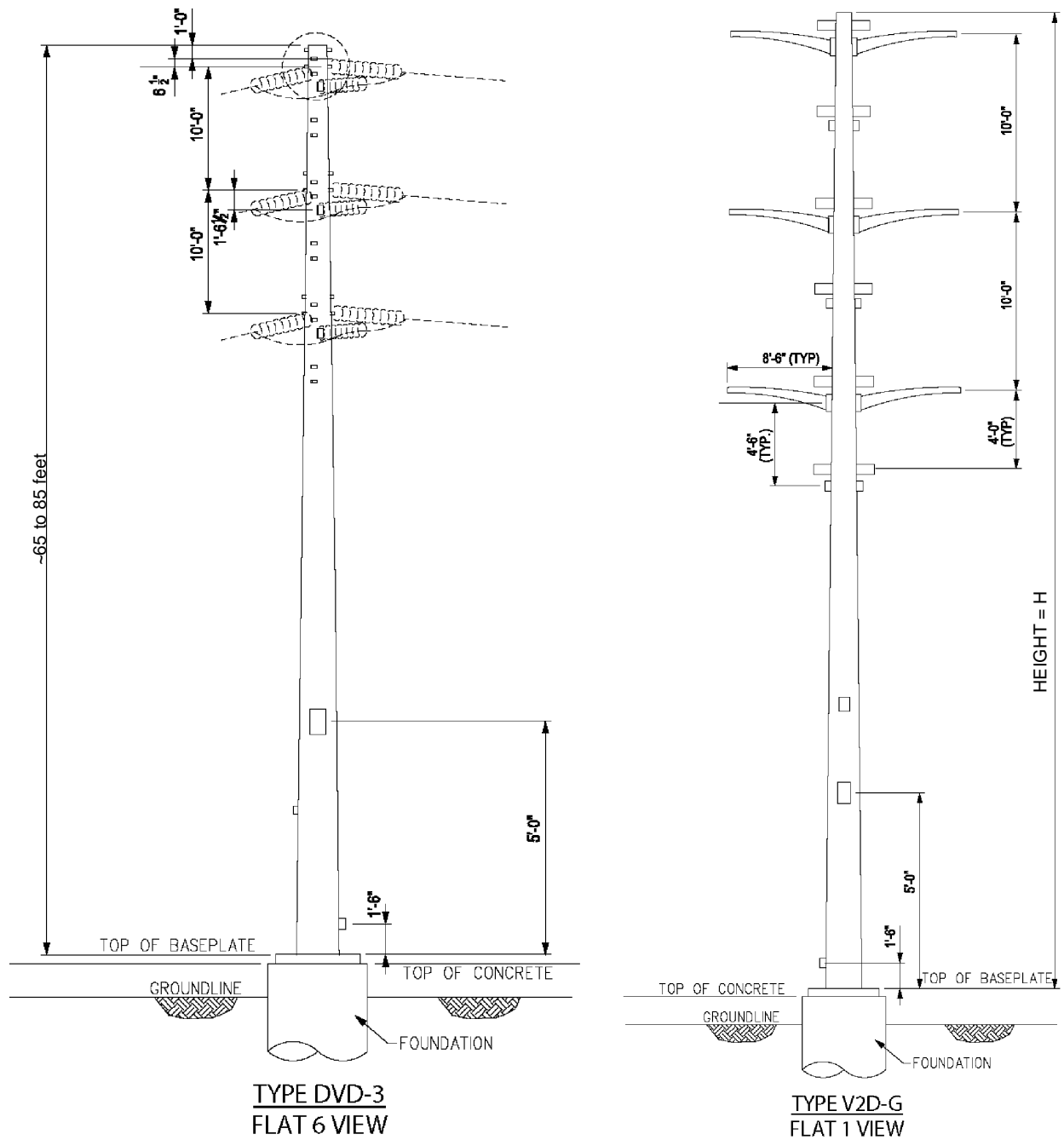
Lattice Steel Towers

Four new double-circuited LSTs with heights ranging from 85 feet to 115 feet tall would be installed within the existing transmission line easement to replace twelve existing structures. The LSTs would be 20 to 28 feet at the base and installed on four footings. Each concrete footing for a drilled pier foundation would be 6 feet in diameter. Micropile foundations would have an array of four micropiles at each leg and would be smaller. The diameter of the micropile array would be 2.5 feet and would be covered by a steel cap 40 inches in diameter. The steel would be galvanized and a dull gray color. The typical LST design is shown in **Figure 2-7**. Each of the four LSTs would support both the HB-H #1 line and the HB-E line.

Wood and Light Duty Steel Poles

Ninety existing wood poles would be replaced with approximately 52 wood poles and 38 LDS poles. Approximately eight LDS poles would be replaced with three LDS and five wood poles. One new interset wood pole would be installed to simplify the design of guy wires where the line makes a 90 degree turn. Wood poles would be required in some locations where the pole is located near an existing gas line. Where the pole and gas line proximate, metal poles cannot be used, as the metal pole can interact with the cathodic insulation of the gas pipeline. In these cases, wood poles are used in order to avoid damage to the existing gas pipelines. Some replacement poles would be taller or of a higher pole class than the existing poles, other replacement poles would be shorter than the poles they replace. Replacement poles would be located within the existing alignment and placed within 5 to 10 feet of the current location, with the exception of two poles that would need to be placed 40 to 60 feet away from the existing wood pole to provide a safe distance from an existing gas line. The existing poles range in height from 44 to 73 feet above ground and replacement poles would range from 43 to 90 feet above ground. The LDS poles would be galvanized and a dull gray color. The replacement wood and LDS poles would be direct-buried without foundations. Typical framing for the wood and LDS replacement poles is shown in **Figure 2-8**.

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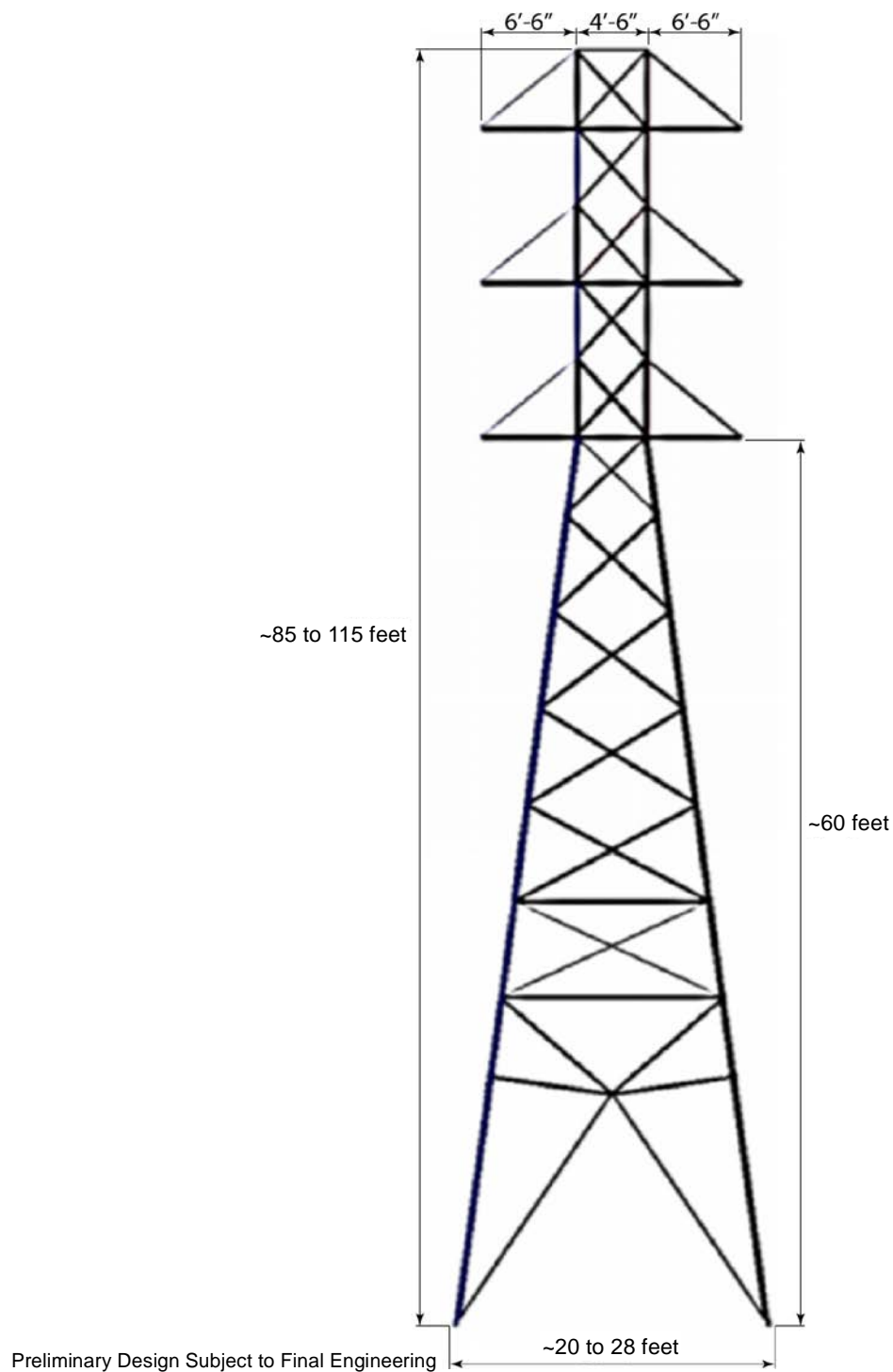
Preliminary, Approximate, and Subject to Change

SOURCE: TRC

Humboldt Bay – Humboldt #1 60 KV Reconductoring Project

Figure 2-6
Typical Tubular Steel Poles

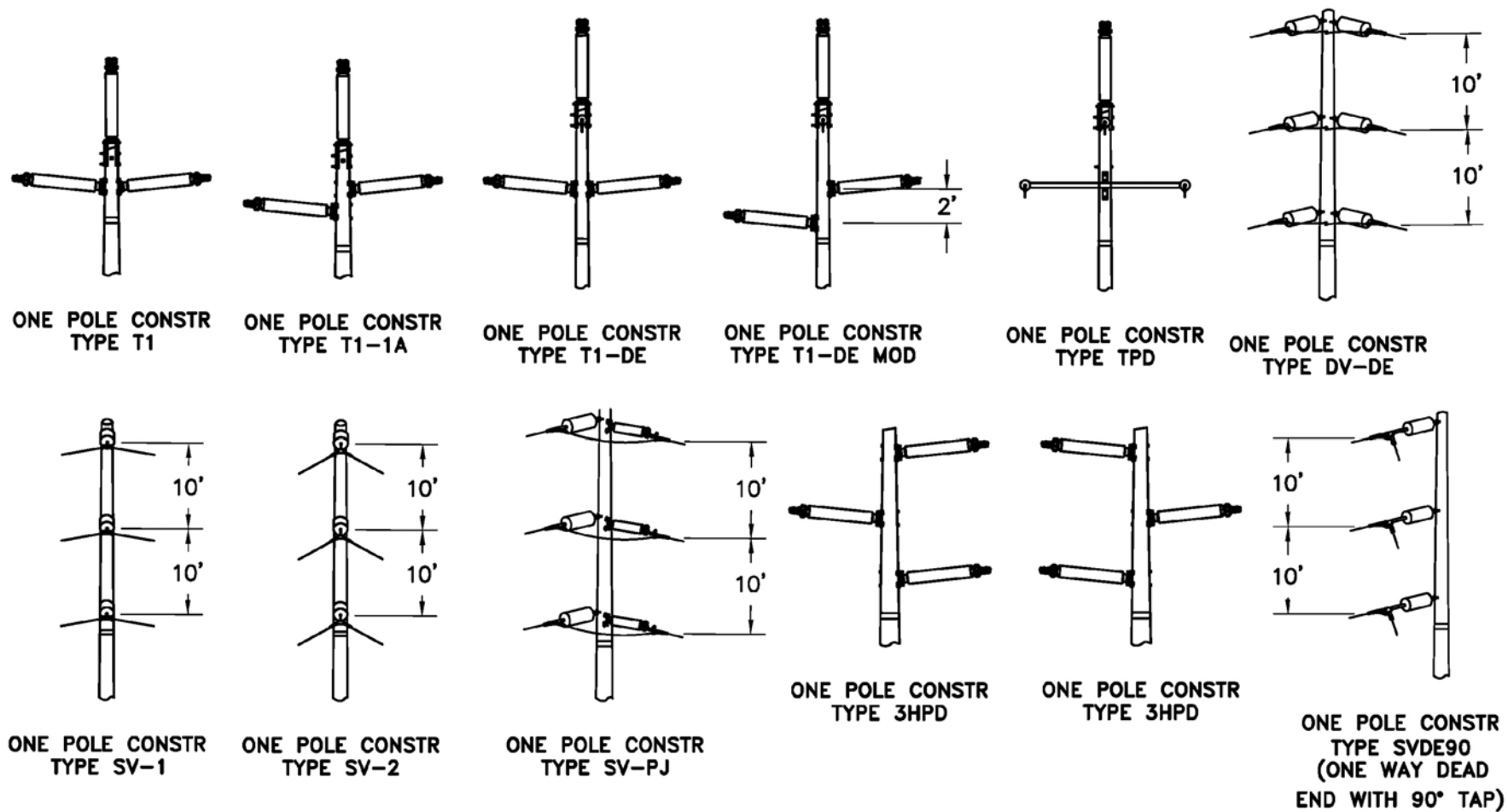
SFO/D12XXXX/D120812.04 - CPUC Humboldt Reconductoring/04 Graphics/Illustrator



SOURCE: TRC

Humboldt Bay – Humboldt #1 60 KV Reconductoring Project

Figure 2-7
Typical Lattice Steel Tower



Preliminary, Approximate, and Subject to Change

SOURCE: TRC

Humboldt Bay – Humboldt #1 60 KV Reconductoring Project

Figure 2-8
Typical Wood and Light Duty Steel Pole Framing

Engineered Direct Embedded Pole

An existing wood pole on the HB-H #1 line approximately 250 feet east of Campton Road would be replaced with an engineered direct embedded pole (EDP). A SCADA switch would be installed on the EDP to replace an existing manual switch currently located on another pole. The galvanized steel pole would be 70 feet tall and embedded 16 feet in the ground, making it 54 feet tall. A typical EDP pole design with a switch is shown in **Figure 2-9**.

Stub Pole

Stub poles are permanent poles that provide an anchor for the pole supporting the power line. Seven wood stub poles with down and span guy wires would be replaced with new stub poles and guy wires. Stub poles are 20 to 42 feet tall and 11 to 16 inches in diameter at ground level.

Existing Utility Relocations

The existing underbuilt distribution lines and communication lines on the existing poles would be transferred to the new poles when spans are short enough, or would be left in place on the existing pole. Existing poles left in place would be “topped” or shortened to support distribution and communication lines after the power line conductors are removed. The Project would not involve installation of any new co-located infrastructure with the replaced conductor.

2.6 Right-of-Way Requirements

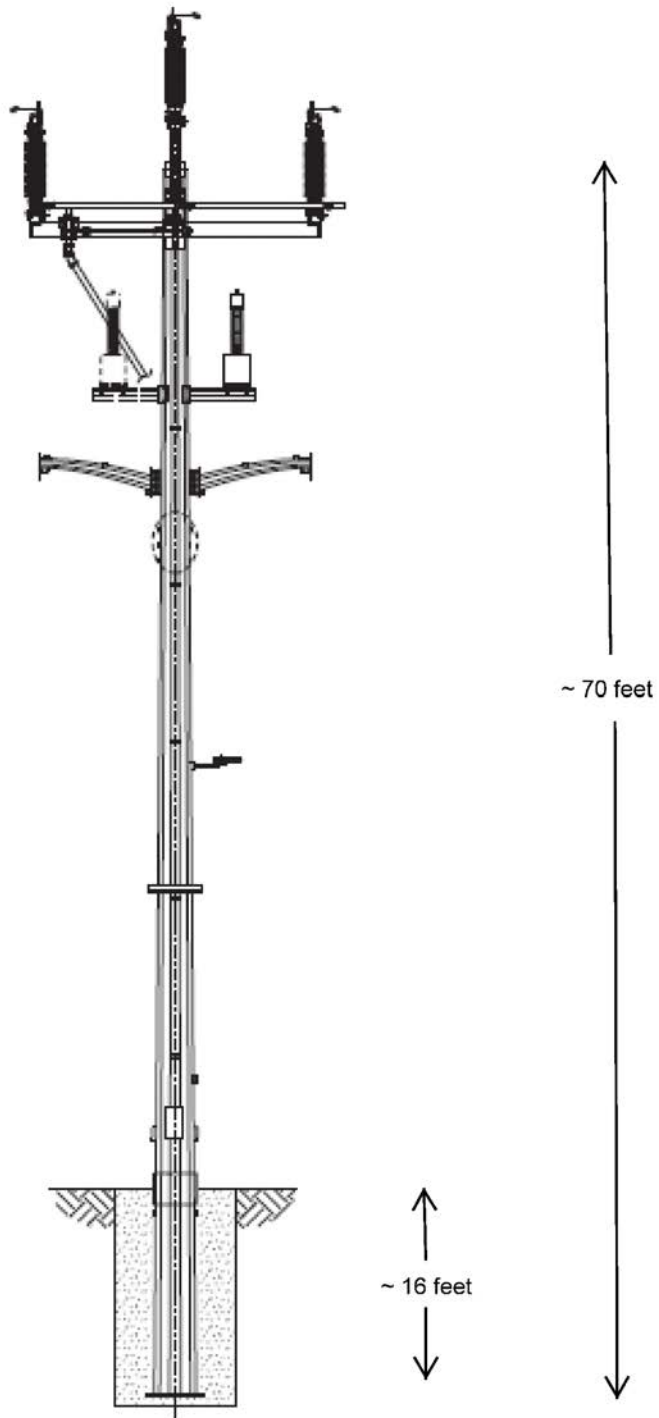
Land entitlement issues are not part of this regulatory proceeding in which the CPUC is considering whether to grant or deny PG&E’s application for a Permit to Construct to upgrade existing facilities. Any land rights issues would be resolved in subsequent negotiations and/or condemnation proceedings in the proper jurisdiction following the decision by the CPUC on PG&E’s application.

The existing HB-H #1 line is located within existing PG&E right-of-way (ROW) and PG&E easements ranging from 10 feet to 40 feet wide, or in city or county streets. PG&E anticipates using the existing alignment throughout the Project, and accordingly, no new easements are anticipated at this time. However, existing easement rights may be updated or clarified prior to construction. Temporary construction easements may be obtained to accommodate pull sites, staging areas, and landing zones located outside of existing easements or ROWs.

Encroachment permits may be required for work performed within city and/or county streets and where the power line crosses roadways. Because permit requirements vary between the relevant city, county, and state agencies, PG&E will work closely with each agency to obtain any necessary encroachment permits. An encroachment permit will be required from the California Department of Transportation (Caltrans) for the crossing of Highway 101.

SFO/D12XXXX/D120812.04 - CPUC Humboldt Reconductoring/04 Graphics/Illustrator

Preliminary Design Subject to Final Engineering



SOURCE: TRC

Humboldt Bay – Humboldt #1 60 KV Reconductoring Project

Figure 2-9
Engineered Direct Embedded Pole with Switch

2.7 Project Construction

This section describes the construction methods that would be used to complete the various components of the Project, including replacing existing conductor (reconductoring), replacing and removing existing poles, and constructing new LSTs.

2.7.1 Staging Areas

Temporary staging areas would be used for a variety of purposes, including storing construction materials and equipment, parking of vehicles and equipment, meeting areas, and other Project-related purposes. The locations of staging areas are preliminary and would be subject to change with final engineering, CPUC requirements, and ground conditions at the time of construction.

The following eleven locations have been identified as potential staging areas:

- A previously disturbed area in Fields Landing;
- A parking lot west of Humboldt Bay Substation;
- A disturbed area in the eastern portion of Redwood Acres Fairgrounds;
- Two fields along an existing access road accessed by Golden West Road, Eureka;
- A field accessed along an existing access road from Union Street in Humboldt County;
- A field accessed off J Street in Eureka;
- A field accessed off O Street in Humboldt County;
- A field along an existing access road off Elk River Road, Eureka;
- A field along the project alignment in the vicinity of Ryan Slough; and
- A field on the south side of the project alignment along Mitchell Road, Eureka.

Most staging areas would be between 0.5 and 1.5 acres, with the exception of a staging area off Golden West Road that would be up to 4.1 acres, and the Fields Landing staging area that would be between 1.0 to 2.5 acres. The proposed staging areas are relatively flat and accessible by existing access routes or overland routes. Temporary fencing (such as cyclone-type fencing) may be installed around the perimeter and temporary electrical service (a temporary utility drop or portable generator) may be installed at staging areas. Portable sanitation facilities may also be placed at the staging areas.

2.7.2 Tower and Pole Work Areas

Wood and LDS pole removal, assembly, and installation is expected to occur in a 0.3-acre work area at the base of each pole. Some work areas would be smaller due to topographical constraints or the presence of sensitive resources. Each new pole will be delivered and staged next to the pole that it will be replacing. Where pole sites are not accessible by ground equipment, new poles would be installed by a combination of helicopter and ground crews. The use of helicopters would minimize ground disturbance in marsh wetlands within the first few structures along the alignment near Humboldt Bay Substation. In addition, construction would be completed in the

dry season, when possible, to help reduce impacts to existing wetlands within the alignment. Depending on site-specific conditions at the time of construction, other construction methods may be employed to reduce ground disturbing impacts, including but not limited to, staging construction equipment on temporary matting. Temporary matting may be placed within work areas depending on surface conditions at the time of construction.

2.7.3 Helicopter Landing Zones

Ten helicopter landing zones have been identified along the Project alignment for helicopters used to reduce potential impacts to biological resources and adjacent landowners. The staging areas listed above may be used as helicopter landing zones with the exception of the staging area located at Redwood Acres Fairgrounds.

Helicopter landing zones would be used to support helicopter operations (e.g., transport materials to and from construction sites), as well as facilitate other Project activities, including, but not limited to, staging and storing construction materials and equipment, refueling, and assembling construction materials. Overland access routes or existing paved roads would provide ground access to helicopter landing zones.

A Blackhawk (load capacity 8,000 pounds), Bell 214 (load capacity 6,000 pounds), or similar helicopter models, would be used. The helicopters would be used to minimize wetland impacts during construction of tower foundations and structures, to top and remove poles, and to replace poles in steep or inaccessible terrain. The helicopters would transport equipment, pole and tower materials, and construction workers from helicopter landing zones to sites along the alignment. The helicopter(s) may be stored overnight and refueled at Murray Field Airport northeast of Eureka.

All Federal Aviation Administration (FAA) regulations regarding helicopter use would be followed during Project construction. The helicopter landing zones are located to avoid carrying poles or other cargo over residences. If required by final construction plans, PG&E would submit a Lift Plan to the FAA and coordinate with potentially affected residents to minimize the duration of the necessary work and any inconvenience to nearby residents. The helicopter landing zones are situated close to the project alignment to shorten the helicopter flight path. Prior to construction, PG&E would prepare a Helicopter Use Plan and submit it to the CPUC to identify the specific flight paths and types of helicopters to be used.

2.7.4 Pull Sites

Pull sites would be established at multiple locations throughout the Project to facilitate reconductoring and would be selected to avoid or minimize impacts on sensitive resources. Approximately 14 pull sites would be located along the Project alignment. Based on the configuration of the existing alignment, the average distance between pull sites would be approximately 0.5 mile. These pull sites would be used during construction to stage conductor-pulling trucks and conductor reel trucks to install the new conductors onto new structures. Pull sites would have a footprint of up to 1 acre and range in size from 300 feet by 100 feet to as small

as 80 feet by 40 feet. Pull sites may also be used as staging areas for equipment and material storage.

Construction vehicles and equipment needed at the pull sites are expected to be parked or staged within the pull site, along the project alignment, or alongside access roads. Transport vehicles (e.g., crew-cab trucks and half-ton pickups) would be used to transport personnel to pull sites. To haul the conductor to the site, reel trailers with reel stands would be mounted on a line truck. On the line truck, pullers would be mounted to install the conductor. The old conductor would be removed from the pull sites on a line truck.

2.7.5 Guard Structure and Snub Pole Work Areas

To prevent the conductor from sagging onto other utility lines or roads during construction, temporary guard structures consisting of either vertical wood poles with cross-arms and nets, or staged construction equipment, would be installed or mobilized at crossings of energized electric lines and/or major roadways during construction. Snub poles would be installed in pull sites to facilitate pulling operations. A work area up to approximately 0.03-acre would be required for each guard structure.

2.7.6 Access/Spur Roads

Construction materials would be delivered using line trucks, other typical construction vehicles, and helicopters, and staged near existing structures. Construction vehicles are anticipated to access work areas on existing access routes, overland if conditions permit, or across temporary rig mat roads, except where steep terrain is present. Temporary matting (e.g., rig mat or timber road) is anticipated to be used for accessing three of the four tower locations given the existing surface conditions. Temporary matting also may be used to access other work areas depending on surface conditions at the time of construction. Poles located on steep terrain would be accessed by using All-Terrain Vehicles (ATVs), by walking to the Project site from the nearest access route or along the alignment, or by helicopter. Road types for Project use and associated potential improvements are listed in **Table 2-3**.

TABLE 2-3
ACCESS ROADS

Type of Access	Description	Potential Improvements Required	Approximate Distance
Existing paved roads	Typically, highway or two-lane county road	None	0.95 mile
Existing dirt/gravel roads	Typically, previously graded road with a dirt or gravel base	Minor road repair and maintenance, as needed	2.96 miles
Temporary overland route	Typically relatively flat grassy areas	Mowing and temporary matting, as needed	2.25 miles

SOURCE: PG&E, 2019.

2.7.7 Power Line Construction

Installing Lattice Steel Towers

The four new LSTs would be installed using either the drilled pier method or micropile method. Each LST would require four foundations. Drilled pier foundations would have a diameter of 6 feet and would range between 20 and 30 feet deep. Each micropile foundation would consist of four micropiles 7 inches in diameter and 60 feet deep, which would form a micropile array 2.5 feet in diameter that would be covered with a steel cap measuring 40 inches in diameter.

Drilled Pier

The fourth LST along the alignment would likely be installed using the drilled pier technique as the site is easily accessible overland. The third LST, located immediately east of Humboldt Hill Road, also may be installed using the drilled pier technique. This technique would require an area of 100 by 100 feet at each location. Matting would be used to provide both a stable work area and access to the work area, as needed. A drilled foundation is constructed by boring a hole into which concrete is poured and anchor bolts are set. Excavation for the foundation for each leg would take approximately 2 days per tower leg if conditions are dry (eight days total per LST), or three to four days per tower leg if groundwater is encountered (14 days total per LST). Drilling fluids would be disposed of using a mud recycler. Excess spoils would be hauled off-site for disposal or used elsewhere on the Project as fill, as appropriate. If dewatering is necessary during excavation, water would be discharged to the surface in compliance with applicable regulations or discharged to a portable tank or other container and disposed off-site in compliance with any applicable state and federal regulatory standards.

Micropiling

It is anticipated that the two LSTs immediately east of Humboldt Bay Substation and possibly the LST located immediately east of Humboldt Hill Road would be installed using the micropiling technique in order to minimize the area of ground and wetland disturbance, but actual foundation would depend on ground conditions at the time of construction. If feasible, construction would be scheduled to occur during the dry season. This technique would require a work area with a radius of 25 feet around each tower leg (slightly more if a dumpster is used for cuttings management). Matting would be used, as needed, to provide both a stable work area and access to the work area. If the access and work areas are very wet, a helicopter may be used to transport all equipment, materials, and spoils. Ground-based work activities in tidally influenced wetlands near Buhne Slough would not occur during extreme high tide events that flood the work area. The micropile process uses a drill tip to install casings for each concrete tower foundation footing. The casing serves as a lining for the concrete foundation, which is placed after the pile has been installed. The casing is used to provide a structural element for the pile. The drill tip serves as an installation aid and provides the means through which grout is injected to produce a soil-cement mixture around the pile. Installing the foundations for all four legs of an LST would take 20-24 days. The micropile equipment directs cuttings and spoils through a closed system away from the drill rig using a discharge hose. Cuttings and all drill spoils would be disposed of in a

dumpster and hauled off-site or placed in smaller containers and transported offsite by helicopter for proper disposal.

Regardless of the method used for installing foundations, a portable washing station may be established to minimize time between the concrete pour and truck clean out. This station would include dike walls and tarping, allowing washed materials to be contained and disposed of properly. Alternatively, self-washing concrete trucks with mobile containment may be used or equipment would be washed and contained in accordance with local encroachment permits. Excess construction materials would be transported to an area service center or other appropriate facility for disposal in accordance with applicable laws.

After the foundations are installed, LSTs would be assembled at the staging area and, if necessary, flown to the site in “panels.” The panels would be placed on the foundations and latticed together with strips of steel. Once the first level is complete, another set of panels would be assembled and bolted on top. These panels would be latticed together, and the process would be repeated until the tower is complete. Once completely assembled, crews would install and tighten all bolts, attach insulators to the arm extensions, and prepare the towers and insulators for the conductor-stringing operation.

Installing Tubular Steel Poles

The foundations for the two TSPs would be installed using the drilled pier technique due to the presence of groundwater and to reduce ground disturbance. The new TSPs would be transported to the site in sections using a flatbed truck and installed using a crane to place the TSP on the foundation base. Existing conductors then would be transferred to the new TSP and installed using a line truck or by hand using ropes. Once the conductors have been installed, the existing wood poles at these locations would be removed and the remaining holes would be backfilled. Excess soil would be removed from the site.

Installing and Removing Wood and Light Duty Steel Poles

In order to install wood and light duty steel poles, new holes would be augured using a “go-tract” (light-weight tract vehicle with drilling equipment), or excavator attachment, or by hand if the equipment cannot access the site. In developed areas, jackhammers or similar equipment may be used to break up concrete. The same equipment would be used to install new poles. Helicopters may be used for pole installation, where necessary. Once poles have been installed, the old conductors would be moved and co-located lines to the new poles using the line truck, go-tract, excavator, or by hand with ropes. The new conductors would be pulled while the old conductors are removed. Finally, old poles would be removed using similar equipment and the existing holes would be filled. Helicopters and cranes would be used, where necessary, for pole removal.

A line truck with trailer and potentially a second truck (crew-cab truck and/or half-ton pickup) would be used to access the majority of the construction sites for installing and removing poles. Helicopters, go-tracts and excavators may be used in locations where line trucks cannot access a pole site. A maximum of five truck trips are anticipated for each pole site in order to: 1) deliver the pole, 2) auger the hole, 3) set the pole, and 4) remove the old pole. Each pole site is expected

to be accessed for up to one week during construction. A line truck and trailer can transport between two and three poles. During pole delivery and removal, the line truck may access two or three sites during each trip in a given day as schedule and conditions permit. Pole delivery, augering, and setting may occur in one day during a single trip.

Replacement poles would be placed in holes dug with a line truck auger attachment (highway digger with 15- to 18-foot depth capacity), an excavator attachment, or by hand. No foundations would be used for new wood or LDS poles. New poles would typically be located within 5 to 10 feet from existing poles and in line within the existing power line alignment. A water truck may be used during augering to keep soil firm in areas of sandy soil. This pole installation technique also would be used for installing the engineered direct embedded pole.

In areas with standing water, a go-tract would excavate the pole hole and install a culvert to stabilize the hole and to allow standing water to be pumped out. The culvert would remain in place after the pole is set as described above. Pole holes would be covered until the new pole is installed. If groundwater is encountered during augering or hand digging, the water would be discharged to the surface in undeveloped areas in compliance with applicable regulations or discharged to a portable tank or other container and disposed off-site.

The existing wood poles do not have foundations and would be removed completely. The LDS poles have a flange at the base, extending 2 inches from the pole. A hydraulic jack mounted on the line truck would be used to loosen old poles as needed. A vacuum truck would be used as needed to remove soil from around the pole to facilitate removal. LDS poles that have a flange at the base would either be cut off below the ground surface, leaving the flange and remaining pole in the ground, or the soil around the flange would be removed using a vacuum truck and the LDS pole along with the flange would be removed. Poles are expected to be cut into two sections for removal on the line truck with a trailer. When poles are removed, the soil removed while augering the new pole hole would be used to backfill the old pole hole; any unused soil would be retained on-site and stabilized consistent with the Storm Water Pollution Prevention Plan (SWPPP) that would be prepared for the Project.

Helicopters would perform pole installation and removal at construction sites inaccessible by over-the-road vehicles or to minimize ground disturbance and wetland impacts. Helicopters typically assist with delivering the new pole to the pole site, setting the pole, and removing the old pole top and bottom sections (two trips).

For helicopter-assisted installation and removal, workers would access the pole site on foot, by helicopter, or by ATV depending on surface conditions. Long-handled shovels would be used to dig the new pole holes and to loosen the soil around existing poles prior to removal. Poles would be cut into two sections for removal; each of the two sections would be removed in a single helicopter trip. Pole removal of the top and bottom section from the site would most likely occur on the same day. When poles are removed, the soil removed while hand-digging the new pole hole would be used to backfill the old pole hole; any unused soil would be retained on site and stabilized consistent with the SWPPP. If groundwater is encountered during hand-digging, the water would be discharged to the surface in accordance with applicable regulations.

Wood poles, splinters, and sawdust from cutting poles would be taken to the designated collection bin. The poles and sawdust would be disposed of in accordance with state and federal law; typically, they are transported with other bin contents to a licensed Class 1 landfill or a composite-lined portion of a solid waste landfill.

Pole Modifications

Ten existing wood and LDS poles would be left in place and modified, including replacing insulators and reframing to accommodate the new conductor. This work would be accomplished using bucket trucks that would access the structures by paved roads or overland, or by helicopter.

Top Removal

Poles slated for shortening would be accessed by foot and helicopter. A chainsaw would be used to remove the top portion of the pole, which would then be flown from the area by helicopter. Visqueen plastic would be placed at the base of the pole to collect debris and sawdust. Prior to and during the shortening of the pole, water mist would be used to settle any dust generated during the chain sawing, as needed. The sawdust and splinters from the chainsaw activities would be collected, removed from the site, and disposed of with the pole top as described above.

2.7.8 Conductor Replacement

To reconnector the HB–H #1 line, PG&E would temporarily take out of service (also known as taking clearances) the 60 kV power line and specific sections of distribution lines that cross the power line or are co-located on the power line poles. As part of ongoing operation and maintenance of the transmission and distribution system, PG&E would continue to manage transmission and distribution clearances and balance the system by routing power through different lines. This normally involves turning existing switches on and off, and installing additional switches if needed, some of which may be located outside the identified project area.

Distribution switches may be located along the distribution lines that are being taken out of service or along other distribution lines that may be affected by taking a line out of service. Some switches are operated at a central location (such as a substation) or are controlled remotely. Other switches are operated manually in the field by operations personnel using a bucket truck or similar equipment. The location where switching activities would be required would depends on daily and seasonal power demand scenarios. PG&E crews would perform this work as needed to comply with safety procedures, to limit customer outages, and to manage the operational needs of the system. Turning a switch on or off generally takes only a few minutes and the crew returns to other work once the switching is completed. These distribution-switching activities take place throughout PG&E's service territory and are an integral part of PG&E's ongoing operational activities.

Reconductoring

Conductor replacement would occur in sections when seasonal restrictions, clearances, and crew scheduling permit. Some installation phases may occur concurrently along different portions of the power line. Reconductoring equipment would be staged at the pull sites.

Before reconductoring begins, any road crossings within the section of installation would be briefly closed or a rolling stop would be arranged. Guard structures on each side of the road also would be put in place on busy streets. Guard structures with netting would be used at Highway 101. Specially-equipped bucket trucks may also be used to guard road and line crossings. Road closures that must occur on city or county roads are not expected to exceed five minutes in duration. For the Highway 101 crossing, the California Highway Patrol and Caltrans would be contacted to organize rolling stops, as necessary.

The existing conductors would be moved from the old poles to the new poles during the line clearance(s) using the boom on the line truck and a line truck with a worker lift. At sites inaccessible by the line truck, the lines would be moved by hand using ropes and lines to transfer the conductors between poles.

The conductor stringing operation begins with installing rollers or sheaves. The rollers or sheaves attach to the lower end of the insulators on the new poles and LSTs. The rollers or sheaves allow the individual conductors to be pulled through each structure until the conductors are ready to be pulled up to the final tension position.

A cable would be attached between the old conductor and the new conductor on a reel attached to a line truck at a pull and tension site. From an adjacent pull and tension site, a line truck with a drum puller and an empty conductor reel would pull the old conductor onto the reel for salvage, while pulling the new conductor into place. Tension would be maintained by the line truck with the new conductor reel to prevent the line from sagging to the ground. Crews may also need to access mid-span locations to structurally reinforce splices (joints where conductor is connected) along the existing conductor to avoid conductor breakage during pulling operations.

After the conductors are pulled into place, conductor sags would be adjusted to a pre-calculated level to comply with the CPUC's GO 95 requirements. The minimum ground clearance would be 32 feet or 29 feet at maximum operating temperature. Vertical separation distance between conductors would be approximately 10 feet, and the horizontal separation distance would be approximately 9.5 feet. Where the power lines cross Highway 101, the minimum ground clearance would be 43 feet, or 35 feet at maximum operating temperature, vertical spacing between conductors would be approximately 10 feet, and the horizontal spacing would be approximately 23 feet. The conductors would then be clamped to the end of each insulator as the roller or sheaves are removed. The final step of the conductor installation would be to install vibration dampers and other accessories. Once completed, any temporarily closed roads would be opened.

Transport vehicles (crew-cab truck and/or half-ton pickup) would be used to transport personnel to a pull or tension site. To haul the conductor to the site, reel trailers with reel stands would be

mounted on a line truck. On the line truck, pullers would be mounted to install the conductor. The conductor would be removed from the sites on a line truck.

Packing crates, spare bolts, and construction debris would be picked up and hauled away for recycling or disposal during construction. After construction is complete, a final survey would be conducted to ensure that cleanup activities have been successfully completed as required.

Temporary Structures

To facilitate conductor installation, two types of temporary wood poles would be installed: guard structures and snub poles. Following reconductoring activities, guard structures and snub poles would be removed, the holes would be backfilled, and the disturbed areas would be recontoured and reseeded as needed.

Guard Structures

As a safety precaution to prevent the conductor from falling to the ground should it be dropped or sag excessively during reconductoring, temporary guard structures would be installed at certain road and aboveground utility crossings before conductor pulling activities begin.

The structures typically consist of paired wood poles with cross bracing designed to catch a falling conductor; the guard structures installed adjacent to Highway 101 would consist of three wood poles and would include netting to provide additional protection against falling or sagging conductor. It is anticipated that a combination of temporary lane closures and rolling road blocks would be required to install the nets.

These structures would be temporary direct-buried wood poles that typically extend approximately 50 feet aboveground and approximately 7 feet below ground. Guy wires may also be used for stability. An approximately 40 by 40-foot work area would be used to install the guard structures. Final design would determine exact guard structure work area locations. Guard structures would be installed away from paved roads and would be located along roadsides in disturbed areas, causing relatively limited disturbance.

If it is not possible to install the guard structure adjacent to the side of the road, the wood poles used to support the guard structure may be installed in large pots temporarily placed on a paved area. Additionally, in lieu of installing temporary wood poles as guard structures, bucket or line trucks may be staged at crossings to serve the same purpose.

Snub Poles

Snub poles are temporary wood poles used to facilitate pulling operations. Approximately four temporary snub poles may be required at each pull site where the conductor cannot be attached directly to the structure because of structure design. Snub poles typically extend 70 feet above ground and 10 feet below ground. Snub poles would be removed upon completion of each wire pull. Snub poles are direct-buried and may be guyed for stability. A line truck would be used to auger and set the snub poles.

2.7.9 Vegetation Clearance and Tree Removal

Operation of the existing transmission system requires maintaining vegetation growing within the transmission line alignment in accordance with utility best management practices (BMPs) and vegetation clearance requirements. Fast-growing thickets of shrub and tree vegetation are common in coastal Humboldt County and it is anticipated that selective brushing and trimming would be required across the length of the Project using chain saws and mowers. Approximately 20 trees ranging between 4 inches and 16 inches in diameter at breast height would need to be removed, and an additional approximately 24 trees would need to be trimmed. Tree species to be removed include Bishop pine (*Pinus muricata*), red alder (*Alnus rubra*), elderberry (*Sambucus* spp.), redwood (*Sequoia sempervirens*), and maple (*Acer* spp.).

It is anticipated that overgrowth would occasionally be encountered along access routes. Clearing or brushing would occur as necessary to reestablish access for construction. Access improvements that require clearing of vegetation would be completed according to PG&E's vegetation management practices to ensure access is safe and to minimize impacts to biological and cultural resources, if any.

2.7.10 Erosion and Sediment Control and Pollution Prevention

Construction would include ground-disturbing activities, including some grading and vegetation clearing to establish safe and level construction work areas and to improve access roads. Small, temporary stockpiles of excavated soil may be located near the excavations for TSP foundations, the drilled tower foundations, and wood or LDS poles. The total estimated volume of soil to be excavated (not including micropiling) is approximately 445 cubic yards. These materials would be used to backfill the holes left by removal of the existing wood and LDS poles. Excess spoils of native material would be stabilized on-site consistent with the SWPPP prepared for the Project. Stockpiles would be located away from or downgradient from waterways, and other sediment control BMPs would be implemented to manage temporary stockpiles. Micropiling of the LST foundations would generate approximately 10 cubic yards of soil per structure, which is directed by the discharge hose into a dumpster for off-site disposal.

Because these activities would result in excess of 1 acre of disturbance, PG&E would obtain coverage under the State Water Resources Control Board (SWRCB) General Permit for Storm Water Discharges Associated with Construction Activity Order Number 2009-0009-DWQ (General Permit) for construction activities. To obtain coverage under the General Permit, PG&E would develop and submit permit registration documents (including a Notice of Intent, SWPPP, risk assessment, site map, certification, and annual fee) to the SWRCB prior to initiating construction activities.

In conjunction with the SWPPP, appropriate BMPs would be developed to ensure that construction activities do not degrade surrounding water quality through erosion, sediment run-off, and other pollutants. These BMPs would be implemented and monitored throughout construction.

2.7.11 Water Supply and Use

Water would be used during construction of the Project as needed for dust control on access roads, dust suppression, and concrete mixing. Water would be obtained from hydrants situated along the Project route via a 4,000-gallon water truck. The Project would use approximately 128,000 gallons of water during construction.

2.7.12 Cleanup and Post-Construction Restoration

Solid waste generated by the Project would be collected in dumpsters designated for recyclable or non-recyclable waste. PG&E will maintain four types of dumpsters: 1) for wood poles that cannot be recycled; 2) for trash that cannot be recycled; 3) for metal recyclables, including removed steel poles and conductor, and 4) for all other types of recyclables such as wood and plastic insulator packaging and construction worker recyclable garbage (e.g. bottles). PG&E estimates that the equivalent of one 40 cubic yard dumpster would need to be emptied approximately twice a month, which equates to approximately 640 cubic yards of waste over the anticipated 8-month timeframe of the project. Removed LDS and wood poles would be transported to a PG&E service center for recycling or disposal. Wood poles and sawdust will be collected in accordance with PG&E hazardous waste guidelines and disposed of pursuant to state and federal requirements. PG&E would conduct a final inspection to ensure that cleanup activities have been successfully completed as required. Restoration activities would be conducted as needed and in coordination with landowners.

2.7.13 Construction Workforce and Equipment

Each construction crew is expected to have between two and five workers. During the construction period, typically there would be two to five crews of approximately five people each, depending on specific activities being conducted. At the peak of construction, there may be as many as 10 crews during day clearances to install the conductors and to minimize the length and number of line clearances. Typically, construction would occur six days per week (Monday through Saturday) and 10-hours per day, consistent with local noise ordinances unless safety or clearance needs dictate otherwise. During conductor installation and peaks in construction, additional crews may be brought to the project site. Nighttime construction is not planned; however, it may be required for clearances, or other safety or logistics concerns that would take place under limited, short-term circumstances. If nighttime construction becomes necessary, it could involve crews of two to five people and would be for a short duration.

Table 2-4 lists the expected equipment and personnel by construction activity. Not all equipment and personnel may be used during all portions of the activity. **Table 2-5** lists the anticipated construction equipment and use.

**TABLE 2-4
TYPICAL CONSTRUCTION WORKERS AND EQUIPMENT**

Activity	Equipment Quantity and Type	Estimated Days per Week of Operation	Estimated Hours per Day of Operation	Estimated Duration of Use (weeks)
Survey	1 pickup truck	5	5	5
Access Road Improvements and Reestablishment	1 Terex mower or similar equipment or rubber tracks	3	6	5
	2 chainsaw	5	3	5
	1 D4 Dozer	2	4	5
	1 Backhoe	2	4	5
	1 pickup truck	5	2	5
	1 semi-truck with trailer to haul Dozer, backhoe and Terex mower	2	4	5
	1 water truck	5	4	5
	1 small excavator-placing temporary matting	1	4	26
Staging Area Improvements, Development, and Operation	1 ASV mower (Terex) or similar equipment on rubber tracks	2	4	2
	1 Forklift 8,000 lb	6	1	26
	1 Forklift 26,000 lb	6	1	26
	1 pickup truck	5	2	5
	1 Semi truck with trailer to haul mower	2	3	5
	1 water truck	5	3	5
	1 F-650 flatbed to transport temporary fencing, generators, sanitation facilities	5	3	5
Drainage Crossings (including temporary bridges)	1 backhoe	5	4	3
	1 pickup truck	5	2	3
Auger Pole Holes	2 pickup trucks	6	3	14
	2 line truck with auger	6	3	14
Material Haul	2 Line truck with trailer	6	3	14
Pole Delivery	1 Tractor Trailer	6	3	14
	1 Line truck with trailer	6	4	14
Pole Installation – Aerial Access (includes old pole removal)	2 Crew cab truck – transport to walk in access point	6	3	3
	1 Helicopter (Bell 214)	1	6	4
Pole Installation Ground Access, per crew, two crews required (includes old pole removal)	2 Crew-cab truck	6	3	14
	2 Aerial lift bucket truck	6	6	14
	2 Line truck with trailer	6	4	14
	1 Vacuum truck	5	6	8
TSP and LDS Delivery	1 Tractor trailer	6	4	14
	2 Pickup trucks/crew cab	6	4	14
TSP and LDS Installation	2 Line truck with auger	6	4	14
	3 Crew-cab pickup trucks	6	3	14
	2 Pickup truck	6	3	14

TABLE 2-4 (CONTINUED)
TYPICAL CONSTRUCTION WORKERS AND EQUIPMENT

Activity	Equipment Quantity and Type	Estimated Days per Week of Operation	Estimated Hours per Day of Operation	Estimated Duration of Use (weeks)
TSP and LDS Installation (cont.)	1 Hole digger	2	4	14
	2 Aerial lift bucket trucks	6	4	14
	1 Backhoe	6	2	14
TSP Foundation Drilled Pier (1 TSP)	1 Truck or Track Drill	1	8	1
	1 12-ton truck crane	1	2	1
	1 Backhoe	1	4	1
	1 Dump truck	1	4	1
	1 Crew truck	2	4	1
	1 Forklift	1	2	1
	1 Concrete mixers	1	4	1
	1 Vac truck (dewatering)	1	4	1
Tower Foundation Drilled Pier (One Lattice Tower)	1 Trimmie pumps (dewatering)	1	4	1
	1 Truck or Track Drill	5	8	2
	1 12-ton truck crane	2	2	2
	1 Backhoe	5	4	2
	1 Dump truck	5	2	2
	1 Crew truck	5	2	2
	1 Forklift	5	2	2
	1 Concrete mixers	2	5	2
Tower and TSP Foundation Installation Micropile (Three Lattice Towers and Two TSPs)	1 Vac truck (dewatering)	2	5	2
	1 Trimmie pumps (dewatering)	2	5	2
	2 200 psi/400 cfm Ingersoll Rand Air Compressor	6	8	8
	1 Helicopter (Blackhawk)	6	3	8
	2 Rotary Beretta Drill	6	8	8
	2 Small Hydraulic Injection Pump	6	8	8
	2 Electric Jack Hammer	6	8	8
	2 Water pump (Hypro)	6	8	8
	4 Diesel powered generator	6	8	8
	2 Grout transfer pump	6	8	8
Tower Installation (all four towers)	2 Power unit	6	4	8
	4 Power hacksaw	6	4	8
	1 Boom truck/Crane	2	6	1
	2 Crew-cab pickup trucks	6	8	2
	2 Light-duty pickup truck	6	8	2
	1 Helicopter (Blackhawk)	4	6	1

TABLE 2-4 (CONTINUED)
TYPICAL CONSTRUCTION WORKERS AND EQUIPMENT

Activity	Equipment Quantity and Type	Estimated Days per Week of Operation	Estimated Hours per Day of Operation	Estimated Duration of Use (weeks)
Conductor Installation (includes old conductor removal, and guard structures)	3 Pickup trucks	6	4	10
	3 Aerial lift bucket trucks	6	7	10
	1 Helicopter (MD 530F)	4	8	1
	1 V-Groove puller attached to line truck	3	7	10
	3 Wire reel trailers attached to line truck	3	7	10
Right-of-way Restoration and Clean-up	1 Small tractor with rippers	5	5	4
	1 Hydroseed truck	3	6	4
	1 Crew cab pickup with trailer transport small tractor	5	3	4
	1 Pickup truck	5	3	4
Sidewalk Restoration	1 Concrete Truck	5	2	2
	1 Crew foreman's pickup	5	2	2
	1 Concrete cutter	5	2	2
	1 Crew cab pickup	5	2	2

SOURCE: PG&E, 2019

TABLE 2-5
ANTICIPATED CONSTRUCTION EQUIPMENT

Equipment	Use
Crane	Lift heavy equipment and materials
Backhoe	Excavation
Bucket truck	Aerial lift for construction personnel
Cement truck and pump	Deliver cement to worksite
Concrete cutter	Cut sidewalks/asphalt
Compressor	Operate tools
Construction digger	Install poles
Dozer	Grading
Dump truck	Remove garbage
Excavator	Place matting
Flasher board	Traffic control
Foreman pickup truck, crew-cab truck, boom truck	Transport workers, material, equipment, and supplies
Forklift	Lift materials
Generator	Portable power generation
Grout transfer pump	Drilling
Hardline puller	Install conductor
Helicopter	Carry equipment and workers
Hole digger	Excavation

TABLE 2-5 (CONTINUED)
ANTICIPATED CONSTRUCTION EQUIPMENT

Equipment	Use
Hydroseed truck	Seeding
Jackhammer	Excavate holes
Tensioner attached to line truck	Install conductor
Terex mower or similar equipment	Mowing
Tractor with rippers	Relieving compaction
Tractor trailer	Deliver poles to the site
Tremie pumps	Concrete installation
Truck-, track- or rotary drill	Installing foundations
V-Groove trailer puller attached to line truck	Install conductor
Vacuum truck	Dewatering/soil removal
Wire reel trailer	Transporting conductor
Work site protection type vehicle	Traffic control

SOURCE: PG&E, 2019

2.7.14 Construction Schedule

Construction is anticipated to begin in spring 2022, or as soon as possible thereafter, and be completed within six to eight months. With few exceptions, the HB – H #1 line cannot be removed from service during the winter season. Structure and pole installation, line reconductoring, and pole removal are expected to be performed over approximately six to eight months. Reconductoring and pole and tower installation activities in wetland areas would generally occur in the dry season beginning in June. Reconductoring would begin along sections of the line when new poles have been installed over an approximate 1-mile length.

The preliminary proposed schedule is presented in **Table 2-6**.

TABLE 2-6
PROPOSED CONSTRUCTION SCHEDULE

Project Activity	Proposed Schedule
Commence work on poles located along streets within urban areas	May 2022
Foundation crew starts work on LSTs and TSPs	May - June 2022
Continue pole replacements and begin conductor replacement	June - September 2022
Cleanup	October 2022
Project completion date	December 2022

SOURCE: PG&E, 2019

2.8 Operation and Maintenance

No changes to existing operation and maintenance activities are anticipated. Reconductoring of the line would reduce the potential for conductor failures. New structures also would be better able to withstand the coastal climate. Fewer failures are anticipated to result in fewer events or incidents that require emergency responses and inspections.

The existing power line is currently inspected annually, or more frequently as needed when driven by an event or incident, such as an emergency. The routine annual inspections, currently alternating between a detailed ground inspection and aerial patrol, would not change as a result of the proposed Project. Equipment and methods typically used (off-road utility vehicles [e.g., 6×6 Polaris/Razor utility quad], line truck, and bucket truck) and walking to poles inaccessible by vehicle are not anticipated to change. Any existing access routes reestablished during the Project would be used.

As maintenance needs arise, repairs and preventative maintenance would be completed by the PG&E power line crew (five trained employees). This is consistent with current practices and would not change as a result of the Project.

2.9 Anticipated Permits and Approvals

The CPUC is the lead state agency for the Project under CEQA because a PTC is required in accordance with Section III.B of CPUC General Order 131-D. General Order 131-D contains the permitting requirements for the construction of transmission and power line facilities. In addition to the PTC, PG&E would obtain all applicable permits for the Project from federal, state, and local agencies. **Table 2-7** provides the potential permits and approvals that may be required for Project construction.

TABLE 2-7
PERMITS AND APPROVALS THAT MAY BE REQUIRED

Permit/Authorization	Agency	Purpose
Federal		
Clean Water Act Section 404 Nationwide Permit 12 and Rivers and Harbors Act Section 10 Permit for work over navigable waters	U.S. Army Corps of Engineers (USACE)	Impacts on wetlands and waters of the U.S.
Endangered Species Act Section 7 Consultation	National Marine Fisheries Service/ United States Fish and Wildlife Service	Potential impacts to federally listed species
Section 106 Consultation (National Historic Preservation Act) (consultation)	State Historic Preservation Officer	Consultation regarding potential impacts to cultural resources
State		
GO-131-D Permit to Construct	CPUC	Issuance of a permit to construct
CEQA Review/Approval		Overall project approval and CEQA review
Coastal Act Coastal Development Permit or Waiver	California Coastal Commission and/or Humboldt County	Work within the Coastal Zone

TABLE 2-7 (CONTINUED)
PERMITS AND APPROVALS THAT MAY BE REQUIRED

Permit/Authorization	Agency	Purpose
State (cont.)		
National Pollutant Discharge Elimination System – General Construction Storm Water Permit (ministerial)	North Coast Regional Water Quality Control Board	Stormwater discharges associated with construction activities disturbing more than 1 acre of land
Clean Water Act Section 401 Water Quality Certification/Waste Discharge Requirement	North Coast Regional Water Quality Control Board	Discharges into Waters of the United States and Waters of the State
Encroachment Permit	Caltrans	Conductor installation over Highway 101
Local		
Encroachment Permit (ministerial)	Humboldt County	Conductor installation over/along county roads
Encroachment Permit (ministerial)	City of Eureka	Conductor installation over/along city roads
Grading Permit (ministerial)	Humboldt County	Grading of more than 50 cubic yards in one lot

2.10 Applicant Proposed Measures

PG&E has incorporated the APMs in **Table 2-8**, Applicant-Proposed Measures, as part of the Project. These measures include PG&E standard construction practices, as well as those measures that are proposed to comply with applicable regulations or minimize particular Project impacts.

TABLE 2-8
APPLICANT PROPOSED MEASURES

Section 3.1 – Aesthetics
APM AE-1: Nighttime lighting to minimize potential visual impacts of construction activity.
In the unlikely event that nighttime construction activities are necessary, measures such as use of non-glare or hooded fixtures and directional lighting will be used to reduce spillover into areas outside the construction site and minimize the visibility of lighting from off-site locations wherever feasible.
APM AE-2: Construction Cleanup.
Construction debris will be picked up regularly from construction areas. The appearance of disturbed land areas will be restored through implementation of re-contouring and/or re-vegetation.
APM AE-3: Use of Galvanized Finish on LDSs, TSPs, and LSTs.
Use of a galvanized finish that will weather to a dull, non-reflective patina on new steel poles and lattice towers will reduce potential for a new source of glare resulting from introduction of project elements.
APM AE-4: Design and operation of staging areas to minimize potential visual impacts
Security lighting may be installed at staging areas including helicopter sites. If nighttime security lighting is required in close proximity to sensitive locations such as existing residences, it will be directional and focused to minimize potential spillover or glare with respect to areas outside the staging area, and non-glare or hooded fixtures may be utilized.

TABLE 2-8 (CONTINUED)
APPLICANT PROPOSED MEASURES

Section 3.3 – Air Quality

APM AQ-1: Minimize Fugitive Dust.

PG&E will minimize fugitive dust during construction by implementing the following measures:

- Reduce the amount of the disturbed area where possible.
- Use water trucks or sprinkler systems in dry weather in sufficient quantity to prevent airborne dust from leaving the site.
- Implement dust control measures as soon as possible following completion of any soil-disturbing activities.
- Establish a policy that vehicle speed for all construction vehicles is not to exceed 15 miles per hour on any unpaved surface.
- Water all active construction areas (including storage piles) as needed to suppress dust. Base the frequency on the type of operation and the soil and wind exposure.
- Cover or maintain at least 2 feet of free board space on haul trucks transporting soil, sand, or other loose material on the site.
- Sweep adjacent public roads if visible soil material is carried out from a work site.

Section 3.4 – Biological Resources

APM BIO-1: Development and implementation of a Worker Environmental Awareness Program.

A qualified biologist will conduct an environmental awareness program for all on-site construction personnel before they begin work on the project. Training will include a discussion of the avoidance and minimization measures that are being implemented to protect biological resources as well as the terms and conditions of project permits. Training will include information about the federal and state Endangered Species Acts and the consequences of noncompliance with these acts. Under this program, workers shall be informed of the presence, life history, and habitat requirements of all special-status species that may be affected in the project area, and about state and federal laws protecting nesting birds, wetlands, and other water resources. An educational brochure will be produced for construction crews working on the project. Color photos of special-status species will be included, as well as a discussion of relevant APMs and specific avoidance or minimization measures for special-status species and habitats.

APM BIO-2: General Resource Protection Measures.

This APM consists of the following components:

- Litter and trash management. All food scraps, wrappers, food containers, cans, bottles, and other trash will be removed from the site daily.
- Parking. Vehicles and equipment will be parked on pavement, existing roads, developed areas, or approved construction work areas.
- Route and speed limitations. Vehicles will be confined to established roadways or previously disturbed roadways and pre-approved access roads, overland routes, and construction work areas. Access routes and temporary construction work areas will be limited to the minimum necessary to achieve the project goals. Vehicular speeds will be limited to 15 miles per hour on unpaved roads.
- Maintenance and refueling. All equipment will be maintained to avoid leaks of automotive fluids such as fuels, solvents, or oils. All refueling and maintenance of vehicles and other construction equipment will be restricted to designated staging areas located at least 100 feet from any down-gradient aquatic habitat, unless otherwise isolated from habitat by secondary containment. Proper spill prevention and cleanup equipment will be maintained in all refueling areas.
- Hazardous materials spills. Emergency spill response and cleanup kits will be readily available for immediate containment and cleanup of an accidental spill. Construction crews will be trained in safe handling of hazardous materials and cleanup responsibilities. Any spills into aquatic habitat will be reported to the CPUC, USACE, State Water Resources Control Board, and the California Coastal Commission (if within the coastal zone) within 24 hours.
- Pets and firearms. No pets, hunting, open fires (such as barbecues), or firearms will be permitted at the project site.
- Reporting and communication. The PG&E project biologist will be responsible for immediately reporting any capture and relocation, or inadvertent harm, entrapment, or death of a federally or state listed species under ESA or CESA, respectively to the USFWS and CDFW, respectively.
- Restore temporarily disturbed habitats. All habitat areas for special-status species that are temporarily disturbed as a result of project activities will be restored upon completion of construction. Disturbed areas will be restored to pre-project conditions in coordination with land owners and in compliance with resource agency permit conditions. Tidal marsh areas will be allowed to passively restore or as otherwise required by resource agency permit requirements.
- Erosion control materials. Only tightly woven netting or similar material will be used for all geo-synthetic erosion control materials such as coir rolls and geo-textiles. No plastic monofilament matting will be used.

TABLE 2-8 (CONTINUED)
APPLICANT PROPOSED MEASURES

Section 3.4 – Biological Resources (cont.)

- Minimize grading and vegetation removal along access roads and construction work areas, to the extent feasible. PG&E will only trim, clear, or remove vegetation as necessary to establish the access routes and allow equipment use. Trees will be directionally felled away from sensitive biological resource areas, and if that is not possible, removed in sections. Damage to adjacent trees will be avoided to the extent possible.
- Weed management. Vehicles and construction equipment will be cleaned of mud and dirt on site at a PG&E wash facility or otherwise approved wash-down location as needed to minimize transport of weed plant parts or seed. Vehicles will also be cleaned at the completion of the project or when off-road use for that vehicle has been completed.

APM BIO-3: Conduct Preconstruction Survey(s) for Special-Status Species and Sensitive Biological Resource Areas.

A qualified biologist will conduct pre-construction survey(s) in areas identified in the BTRR as having habitat for special-status species and sensitive biological resource areas, either during the appropriate phenological period for plants or within 7 days prior to construction activities for wildlife. If any special-status species is encountered during the pre-construction survey(s), the PG&E project biologist will be contacted immediately. If any special-status species are found nearby but outside the construction work area, they will not be disturbed. If recommended by the biologist, a temporary silt-fence barrier may be installed to prevent special-status species from entering the construction work area(s) during project activities.

APM BIO-4: Identification and Marking of Sensitive Biological Resource Areas.

Sensitive biological resources (e.g., special-status plants, wetlands) in or adjacent to construction work areas identified during the pre-construction surveys, will be clearly marked in the field and on project maps. Such areas will be avoided during construction to the extent practicable.

APM BIO-5: Biological Monitor On-Site during Construction Activities in Sensitive Biological Resource Areas.

A qualified biologist will be onsite during ground-disturbing construction activities in sensitive biological resource areas identified in APM BIO-4 above unless the area has been protected by barrier fencing to protect sensitive biological resources and previously cleared by the qualified biologist. The qualified biologist will ensure implementation and compliance with all avoidance and mitigation measures and have the authority to stop or redirect work if construction activities are likely to affect sensitive biological resources.

APM BIO-6: Nesting Bird Impact Avoidance and Protection.

If construction work is scheduled during the nesting season (February 1 through August 31), nest detection surveys will correspond with a standard buffer for individual species in accordance with the species-specific buffers set forth in Appendix C of the PEA and will occur within 7 days prior to the start of construction to determine nesting status by a qualified biologist. Nest surveys will be accomplished by ground surveys and will support phased construction, with surveys scheduled to be repeated if construction lapses in a construction work area for 7 days between March and July. Access for ground surveys will be subject to property owner permission.

If active nests containing eggs or young are found, the biologist will establish a species-specific nest buffer, as defined in Appendix C of the PEA. Where feasible, standard buffers will apply, although the biologist may increase or decrease the standard buffers in accordance with the factors set forth in Appendix C. Nesting pair acclimation to disturbance in areas with regularly occurring human activities will be considered when establishing nest buffers. The established buffers will remain in effect until the young have fledged or the nest is no longer active as confirmed by the biologist. Active nests will be periodically monitored until the biologist has determined that the young have fledged or once construction ends. At the discretion of the biologist, vegetation removal by hand may be allowed within nest buffers or in areas of potential nesting activity. Inactive nests may be removed in accordance with PG&E's approved avian permits. The biologist will have authority to order the cessation of nearby project activities if nesting pairs exhibit signs of disturbance.

APM BIO-7: Special-Status Plant Impact Avoidance and Protection.

Prior to the start of construction and in conjunction with APM-BIO 3, a qualified botanist will resurvey mapped populations of Lyngbye's sedge and flag or otherwise mark (e.g., stake, fence) all special-status plant populations documented adjacent to construction work areas for avoidance as feasible. After project activities have been completed at a given worksite, all staking, fencing, or flagging will be removed.

If complete avoidance of special-status plant populations is not possible, PG&E will implement the following:

- PG&E will limit driving across special-status plant populations to the greatest extent feasible. Where direct disturbance to topsoil (except excavation) is unavoidable, matting and other protection measures (e.g., rig mats, timber roads, plating, or tracked vehicles) will be used to minimize soil compaction or destruction of underground plant structures. Matting and other protection measures will be approved by a qualified biologist before work begins at that location.
- For any unavoidable excavation required within Lyngbye's sedge populations, the upper 6 inches of topsoil containing the plant's rhizomes will be stockpiled. PG&E will use the stockpiled topsoil to restore the area after temporary construction has been completed.

TABLE 2-8 (CONTINUED)
APPLICANT PROPOSED MEASURES

Section 3.4 – Biological Resources (cont.)

APM BIO-8: Special-Status Amphibian and Reptile Impact Avoidance and Protection.

During wet weather or the rainy season, all open holes, pits, and trenches will be protected to ensure that frogs, salamanders, and/or turtles do not become entrapped. Protective fencing, coverings, or ramps will be installed to either prevent wildlife from falling into excavations or to allow for escape. At the end of each work day, steep-walled holes or trenches more than six inches deep will be covered or provided with one or more escape ramps and/or fenced. Open excavations will be inspected each morning, prior to the start of construction activities, to ensure that no wildlife are trapped. Construction personnel will also check underneath vehicles and within materials to be moved (i.e., tires, tracks, pipes, etc.) for the presence of frogs, salamanders, and/or turtles when parked or placed near suitable aquatic or upland dispersal habitat. Any species found will be captured and relocated to an approved location as approved by the resource agencies, if required, and in compliance with any regulatory permits issued for the project.

APM BIO-9: Implement General Protection Measures for Wetlands and Other Waters.

PG&E will implement the following general measures to minimize or avoid impacts on wetlands and other waters:

- Avoid wetlands and other waters to the extent feasible.
- Construction activities in wetlands will generally occur during the dry season (May 1 to October 15) to the extent feasible.
- Ground-based construction activities in tidally influenced wetlands near Buhne Slough will not occur during extreme high tide events that would flood the construction work areas.
- Where travel across seasonal wetlands is necessary, it will occur during dry conditions, when feasible, to avoid soil compaction or mixing. If travel is required during wet or moist conditions, temporary matting or other protection measure (e.g., rig mats, timber roads, plating, or tracked vehicles [preferably rubber tracked]) will be used to avoid soil compaction or mixing. Matting and other protection measures will be approved by a qualified biologist before construction work at that location begins.
- Conduct all fueling of vehicles at least 100 feet from wetlands and other water bodies unless approved by a qualified biologist.
- Set construction work areas back at least 50 feet from streams, creeks, or other water bodies unless approved by a qualified biologist.
- Implement a Storm Water Pollution Prevention Plan (SWPPP) *to minimize construction-related erosion and sediments from entering nearby waterways (see APM WQ-1).*

APM BIO-10: Restore Temporarily Impacted Wetlands and Other Waters.

All wetlands and other waters that are temporarily disturbed as a result of project activities will be restored following completion of construction in accordance with any applicable resource agency permits.

APM BIO-11: Compensate for Permanent Impacts on Wetlands and Other Waters in Accordance with Project Permits.

PG&E will compensate for permanent impacts on wetlands by providing at least 1:1 mitigation for any unavoidable permanent impacts to wetlands and waters within the coastal zone and in compliance with resource agency permit requirements. Final compensation ratios for impacts to wetlands and waters throughout the project alignment will be based on site-specific information and finalized through discussions with the U.S. Army Corps of Engineers and the North Coast Regional Water Quality Control Board as part of the permitting processes for the project.

APM BIO-12: Minimize Impact to Marbled Murrelet.

Helicopter work will not commence until at least two hours after sunrise and will end at least one hour before sunset to avoid the potential to interrupt peak daily feeding cycles for marbled murrelet.

Section 3.5 – Cultural Resources

APM CUL-1: Workers Environmental Awareness Training.

PG&E will provide environmental awareness training on archeological resources protection. This training may be administered by the principal cultural resource specialist (CRS) as a stand-alone training or included as part of the overall environmental awareness training as required by the project and will at minimum include: types of cultural resources or fossils that could occur at the project site; types of soils or lithologies in which the cultural resources could be preserved; procedures that should be followed in the event of a cultural resource or human remain discovery; and penalties for disturbing cultural resources.

TABLE 2-8 (CONTINUED)
APPLICANT PROPOSED MEASURES

Section 3.5 – Cultural Resources (cont.)

APM CUL-2: Flag and Avoid Resources (Spiegelberg Homestead Archaeological Deposit).

The archaeological deposit at the Spiegelberg Homestead is not in the project area limits (PAL), but adjacent to it. There are no roadway or land improvements proposed in this location as use of this area is limited to access to a landing zone. Additionally, no pole replacements or installations are proposed at this location. However, to ensure no inadvertent impacts occur to this resource, a qualified archaeologist will establish exclusion flagging or safety fencing around the archaeological site.

If it is determined that construction equipment must utilize this area for access, no grading or blading or other form of ground disturbance will be permitted within this area, and surface impacts to the resource will be avoided by way of installation of temporary protection such as matting.

Although unlikely, if it is determined that the project cannot avoid impacts within the area using the protection methods identified above, additional analysis and coordination with the CPUC will be required.

APM CUL-3: Manage Unanticipated Cultural Resources Discoveries.

a) Cultural Resources

If cultural resources 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 PG&E cultural resource specialist (CRS)/archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with the CPUC. Work may continue on other portions of the site with the CRS/archaeologist's approval. PG&E will implement the CRS/archaeologist's recommendations for treatment of discovered cultural resources.

b) Human Remains

In keeping with the provisions provided in 7050.5 CHSC and Public Resource Code 5097.98, in the unlikely event that human remains or suspected human remains are encountered during any project-related activity, PG&E will:

1. Stop all work within 100 feet;
2. Immediately contact the CRS, who will then notify the county coroner and CPUC;
3. Secure the location, but do not touch or remove remains and associated artifacts;
4. Do not remove associated spoils or pick through them;
5. Record the location and keep notes of all calls and events; and
6. Treat the find as confidential and do not publicly disclose the location.

If the coroner determines that the remains are Native American, California Health and Safety Code 7050.5 and PRC Section 5097.98 require that the PG&E CRS contact the NAHC within 24 hours. The NAHC, as required by PRC Section 5097.98, will determine and notify the Most Likely Descendant.

APM CUL-4: Undiscovered Potential Tribal Cultural Resources,

The following procedure shall be employed (after stopping work and following the procedure for determining eligibility in APM CUL-3) if a resource is encountered and determined by the project's qualified archaeologist to be potentially eligible for the CRHR or a local register of historic resources and is associated with a California Native American Tribe(s) with a traditional and cultural affiliation with the geographic area of the proposed project:

1. The CRS shall notify the CPUC for appropriate action. PG&E will assist the CPUC if needed to identify the lead contact person for the California Native American Tribe(s) potentially associated with the cultural resource and with a traditional and cultural affiliation with the geographic area of the proposed project. The CPUC will contact the lead contact person to set up a meeting with PG&E and the CPUC.
2. The CRS shall participate with the CPUC in discussions with the California Native American Tribe(s) to determine whether the resource is a "tribal cultural resource" as defined by PRC section 21074 and the tribe(s)' preferred method of mitigation, if the resource is determined to be a TCR.

If no agreement can be reached for mitigation after discussions with the California Native American Tribe(s) or it is determined that the tribe(s)' preferred mitigation is not feasible, PG&E will implement one of the example mitigation measures listed in PRC section 21084.3(b), or other feasible mitigation.

APM GEO-1: Minimization of Construction in Soft or Loose Soils.

Where soft or loose soils are encountered during project construction, appropriate measures will be implemented to avoid, accommodate, replace, or improve such soils. Depending on site-specific conditions and permit requirements, these measures may include excavating soft or loose soils and replacing them with engineered backfill materials, or installing matting in temporary work areas.

TABLE 2-8 (CONTINUED)
APPLICANT PROPOSED MEASURES

Section 3.6 – Geology and Soils (cont.)

APM GEO-2: Reduction of Slope Instability during Construction

Existing natural or temporarily constructed slopes affected by construction or operations will be evaluated for stability. Grading plans will be designed to limit the potential for slope instability and minimize the potential for erosion.

APM PALEO-1: Unanticipated Potential Paleontological Resources.

If significant paleontological resources are discovered during construction activities, the following procedures will be followed:

1. Stop work immediately within 100 feet.
2. Contact the designated project inspector and PG&E CRS immediately;
3. Protect the site from further impacts, including looting, erosion or other human or natural damage;
4. The PG&E CRS in tandem with CPUC will arrange for a qualified paleontologist to evaluate the discovery. The paleontologist will be responsible for developing the recovery strategy in tandem with PG&E and will lead the recovery effort, which will include establishing recovery standards, preparing specimens for identification and preservation, documentation and reporting, and securing a curation agreement from the approved agency; and,
5. Work may not resume within 100 feet of the find until approval by the paleontologist and PG&E CRS.

APM PALEO-2: Worker's Environmental Awareness Training

Moderate and potentially high sensitivity formations are identified within the PAL; therefore, PG&E will provide environmental awareness training on paleontological resources protection. This training may be administered as a stand-alone training or included as part of the overall environmental awareness training as required by the project. The training will include, at minimum, the following:

1. The types of fossils that could occur at the project site.
2. The types of lithologies in which the fossils could be preserved.
3. The procedures that should be taken in the event of a fossil discovery.
4. Penalties for disturbing paleontological resources.

Section 3.7 – Greenhouse Gas Emissions

APM GHG-1: Minimize GHG Emissions

- Maintain construction equipment in proper working conditions in accordance with PG&E standards.
- Minimize unnecessary construction vehicle idling time. The project will apply a "common sense" approach to vehicle use, so that idling is reduced as far as possible below the maximum of 5 consecutive minutes allowed by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off.
- Maintain construction equipment in proper working conditions in accordance with PG&E standards.
- Minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible. Portable diesel-fueled construction equipment with engines of 50 horsepower or larger and manufactured in 2000 or later will be registered under the CARB Statewide Portable Equipment Registration Program.
- Minimize welding and cutting by using compression of mechanical applications where practical and within standards.
- Encourage the recycling of construction waste where feasible.

Section 3.8 – Hazards and Hazardous Materials

APM HAZ-1: Hazardous-Substance Control and Emergency Response

PG&E will implement its hazardous substance control and emergency response procedures to ensure the safety of the public and site workers during construction. The procedures identify methods and techniques to minimize the exposure of the public and site workers to potentially hazardous materials during all phases of project construction through operation. They address worker training appropriate to the site worker's role in hazardous substance control and emergency response. The procedures also require implementing appropriate control methods and approved containment and spill-control practices for construction and materials stored on site. If necessary to store chemicals on site, they will be managed in accordance with all applicable regulations. Material safety data sheets will be maintained and kept available on site, as applicable.

No known soil contamination was identified within the project site. In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are unearthed during site grading or excavation activities, the excavated soil will be tested, and if contaminated above hazardous waste levels, will be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil will require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations.

TABLE 2-8 (CONTINUED)
APPLICANT PROPOSED MEASURES

Section 3.8 – Hazards and Hazardous Materials (cont.)

All hazardous materials and hazardous wastes will be handled, stored, and disposed of in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. The hazardous substance control and emergency response procedures include, but are not limited to, the following:

- Proper disposal of potentially contaminated soils.
- Establishing site-specific buffers for construction vehicles and equipment located near sensitive resources.
- Emergency response and reporting procedures to address hazardous material spills.
- Stopping work at that location and contacting the County Fire Department Hazardous Materials Unit immediately if visual contamination or chemical odors are detected. Work will be resumed at this location after any necessary consultation and approval by the Hazardous Materials Unit.

PG&E will complete a standard Emergency Action Plan Form as part of project tailboard meetings. The purpose of the form is to gather emergency contact numbers, first aid location, work site location, and tailboard information.

APM HAZ-2: Worker Environmental Awareness Program (WEAP) for Health, Safety, and Environment.

The WEAP will include the following components related to hazards and hazardous materials:

- PG&E health, safety, and environmental expectations and management structure.
- Applicable regulations.
- Summary of the hazardous substances and materials that may be handled and/or to which workers may be exposed.
- Summary of the primary workplace hazards to which workers may be exposed.
- Overview of the measures identified in APM HAZ-1.
- Overview of the controls identified in the Stormwater Pollution Prevention Plan under APM HYDRO-1.

This measure will be coordinated with worker training required under APM BIO-1 and APM WQ-2.

APM HAZ-3: Fire Risk Management

PG&E will follow its standard fire risk management procedures, including safe work practices, work permit programs, training, and fire response. Project personnel will be directed to park away from dry vegetation. During fire season, all motorized equipment driving off paved or maintained gravel/dirt roads will have federal- or state-approved spark arrestors. All off-road vehicles will be equipped with a shovel and a backpack pump filled with water and all fuel trucks will carry a large fire extinguisher with a minimum rating of 40 B:C.

Section 3.9 – Hydrology and Water Quality

APM WQ-1: Development and Implementation of a SWPPP.

Following project approval, PG&E will prepare and implement a SWPPP to minimize construction impacts on surface water and groundwater quality. The SWPPP will be designed specifically for the hydrologic setting of the proposed project (e.g., surface topography, etc.) The SWPPP will include procedures and standards to stabilize graded areas, reduce erosion, avoid release of hazardous materials and sediment to surface waters, and manage dewatering effluents. The SWPPP will identify BMPs and erosion and sediment control measures, such as straw wattles, water bars, covers, silt fences, storm drain inlet protection, mud trackout controls, and sensitive area access restrictions (e.g., flagging) that will be installed before the onset of winter rains or anticipated storm events to minimize impacts on surface water and groundwater.

Mulching, seeding, or other suitable stabilization measures will be used to protect exposed areas during construction activities, as necessary. Identified erosion and control measures will be installed prior to the start of construction activities and will be inspected and improved as needed as required by the Construction General Permit and stated in the SWPPP. The SWPPP will specify that temporary sediment control measures intended to minimize sediment transport from temporarily disturbed areas such as silt fences or wattles will remain in place until disturbed areas are stabilized. In areas where soil is temporarily stockpiled, soil will be placed in a controlled area and will be managed using industry standard stockpile management techniques. Where construction activities occur near a surface water body or drainage channel, the staging of construction materials and equipment and excavation spoil stockpiles will be placed and managed in a manner that minimizes the risk of sediment transport to the drainage. The SWPPP will identify areas where refueling and vehicle-maintenance activities and storage of hazardous materials will be permitted, if necessary.

A copy of the SWPPP will be provided to the CPUC for recordkeeping. The plan will be maintained and updated during construction as required by the Construction General Permit.

TABLE 2-8 (CONTINUED)
APPLICANT PROPOSED MEASURES

Section 3.9 – Hydrology and Water Quality (cont.)

APM WQ-2: Worker Environmental Awareness Training (WEAP) Development and Implementation.

Worker environmental awareness training will communicate environmental issues and appropriate work practices specific to the project. The WEAP will include applicable portions of the SWPPP, including spill prevention and response measures, groundwater handling measures, and proper BMP implementation. The training will emphasize safe handling of hazardous materials, site-specific physical conditions to improve hazard prevention (e.g., identification of flow paths to the nearest water bodies), and a review of all site-specific water quality requirements.

Section 3.12 – Noise

APM NO-1: Employ Noise-Reducing Construction Practices during Temporary Construction Activities.

PG&E will employ standard noise-reducing construction practices such as the following:

- Construction equipment will use noise-reduction devices that are no less effective than those originally installed by the manufacturer.
- Locate stationary equipment as far as practical from noise-sensitive receptors.
- Limit unnecessary engine idling.
- Limit all construction activity near sensitive receptors to daytime hours unless required for safety or to comply with line clearance requirements

APM NO-2: Notify Residents of Nighttime Construction.

Should nighttime project construction be necessary because of planned clearance restrictions, residents within 300 feet of the construction site(s) will be notified at least 7 days in advance by mail, personal visit, door hanger, or e-mail and informed of the expected work schedule.

APM NO-3: Notify Sensitive Receptors of Helicopter Use.

Sensitive receptors within 300 feet of areas where helicopters will be used for construction will be notified by mail, personal visit, door hanger, or e-mail at least 7 days prior to beginning helicopter activities. Notification will also include posting signs in appropriate locations with a contact number to call with questions and concerns.

Section 3.15 – Recreation

APM REC-1: Coordination and Signage.

PG&E will coordinate with the operators of the Redwood Fields Ballpark, Redwood Acres Fairgrounds, and McKay Community Forest during project construction activities to minimize any potential construction impacts from the project. Signage notifying of construction activities will be posted at these recreational facilities at least one week in advance of construction.

Section 3.16 – Transportation and Traffic

APM TT-1: Temporary Traffic Controls.

PG&E will obtain necessary transportation and encroachment permits from Caltrans and the local jurisdictions, as required, including those related to state route crossings and the transport of oversized loads and certain materials, and will comply with permit requirements designed to prevent excessive congestion or traffic hazards during construction. PG&E will develop road and lane closures or width reduction or traffic diversion plans as required by the encroachment permits. Construction activities that are in, along, or cross local roadways will follow best management practices and local jurisdictional encroachment permit requirements, which may include traffic controls such as signs, cones, and flaggers to minimize impacts on traffic and transportation in the project area. PG&E will coordinate with the Eureka Transit Service regarding the schedule and scope of construction activities that could impact bus routes crossed by the project alignment and will coordinate temporary relocation of bus stops if necessary.

APM TT-2: Air Traffic Control.

PG&E will implement the following protocols related to helicopter use:

- PG&E will comply with all applicable FAA regulations regarding air traffic;
- PG&E will prepare a Helicopter Use Plan;
- Helicopter operators will coordinate all project helicopter operations with local airports before and during project construction; and
- PG&E will comply with FAA requirements for helicopter activities in residential areas that will reduce safety risks, and if necessary coordinate with residents that may need to temporarily evacuate their properties

TABLE 2-8 (CONTINUED)
APPLICANT PROPOSED MEASURES

Section 3.16 – Transportation and Traffic (cont.)

APM TT-3: Coordinate Road Closures with Emergency Service Providers and School Districts.

At least 24 hours prior to implementing any road or lane closure, PG&E will coordinate with applicable emergency service providers and school districts in the project vicinity. PG&E will provide information regarding the road or lanes to be closed, the anticipated date, time, and duration of closures, and a contact telephone number.

Section 3.20 – Wildfire

APM WF-1: Smoking and Fire Rules

Smoking will not be permitted on site, except in barren areas that measures a minimum of 20 feet in diameter and are cleared to mineral soil. Under no circumstances will smoking be permitted during the fire season (approximately July through October) while employees are operating equipment, or while walking or working in grass and woodlands.

APM WF-2: Carry Emergency Fire Suppression Equipment

PG&E construction crew trucks and large equipment shall have, at a minimum, a standard roundpoint shovel and a fire extinguisher. If construction activities likely to cause sparks (e.g., welding, grinding, or grading in rocky terrain) are conducted, emergency fire tool boxes shall be readily available to crews. The emergency fire tool boxes shall contain fire-fighting items such as shovels, axes, and water,

APM WF-3: Construction Fire Prevention Plan

PG&E shall prepare a Construction Fire Prevention Plan consistent with the measures identified in APM HAZ-3, Fire Risk Management, that addresses procedures for fire prevention at active construction sites. The Construction Fire Prevention Plan shall include requirements for carrying emergency fire suppression equipment, conducting “tailgate meetings” that cover fire safety discussions, restricting smoking, idling vehicles, and restricting construction during red flag warnings. The Construction Fire Prevention Plan shall address the following fire risk reduction measures:

- Training and briefing all personnel working on the project in fire prevention and suppression methods.
- Conducting a fire prevention discussion at each morning’s safety meeting.
- Storage of prescribed fire tools and backpack pumps with water within 50 feet of work activities.
- Assigning personnel to conduct a “fire watch” or “fire patrol” to ensure that risk mitigation and fire preparedness measures are implemented, immediate detection of a fire, and to coordinate with emergency response personnel in the event of a fire.

The Construction Fire Prevention Plan will be submitted to the CPUC for review at least 30 days prior to construction.

SOURCE: PG&E, 2019

2.11 Electric and Magnetic Fields Summary

2.11.1 Electric and Magnetic Fields

This Initial Study 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.

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 does 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 B.

After several decades of study regarding potential public health risks from exposure to power line EMF, research results remain 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 and the California Department of Health Services 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 CPUC 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 transmission corridor.

2.11.2 EMF and the Project

In accordance with the standard EMF Design Guidelines for Electrical Facilities, filed with the CPUC in compliance with CPUC Decision No. D.06-01-042, the Project would implement the following “no cost and low-cost” magnetic field reduction measures. The field reduction measures would include:

- Raising the height of fifty-three structures in the school/daycare and residential land use areas by 10 feet taller than otherwise required to reduce magnetic field strength at ground level.

2.12 References

Pacific Gas and Electric Company (PG&E), 2019. Application of Pacific Gas and Electric Company for a Permit to Construct the Humboldt Bay-Humboldt #1 60 KV Reconductoring Project, filed February 7, 2019.

PG&E, 2019. Response to Data Request No. 1, August 9, 2019.

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CHAPTER 3

Environmental Checklist and Discussion

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3.1 Aesthetics

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
1. AESTHETICS — Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.1.1 Environmental Setting

Visual or aesthetic resources are generally defined as both the natural and built elements that comprise a landscape and contribute to a viewer's experience and appreciation of the environment. Depending on the extent to which a project's presence in the landscape would alter a viewer's perceived visual character and quality of the environment, a visual impact may occur.

The study area for aesthetic and visual resources includes the proposed location of all Project components as well as the landscapes and surrounding areas (or viewshed) within which the Project's facilities would be visible. The visual analysis focuses on travel route views, and views from the coast and other publically accessible areas within the study area where the proposed features would be visible. Aesthetic or visual resources consist of landforms, forests and other vegetation, rock and water features, as well as cultural modifications, such as historic or other structures in the built environment, that contribute to the overall visual character and sensitivity of a landscape.

Existing Visual Quality of the Region

The study area is within the coastal foothills of rural Humboldt County, with portions of the proposed Project located in the City of Eureka and the communities of Humboldt Hill, Bayview/Pine Hill, and Cutten. The proposed Project would include reconductoring 7.8 miles of power lines, pole replacement, and installation of lattice towers within an existing utility corridor. The Project would extend from the existing Humboldt Bay Substation located in the coastal zone adjacent to Humboldt Bay, through the coastal foothills of southern Eureka. The existing visual quality of the region is characterized by gently rolling coastal foothills

interspersed by redwood forests, estuaries, and dispersed rural agricultural holdings along with industrial and residential structures, including the existing power lines and related infrastructure. The City of Eureka is situated between the Samoa Peninsula, to the west, and the inner shoreline of Humboldt Bay, northeast of the City. Natural water features such as Ryan and Martin Sloughs, and the Elk River provide a visual transition between the City and the coastal redwood forests, which extend into foothills and distant mountains to the east.

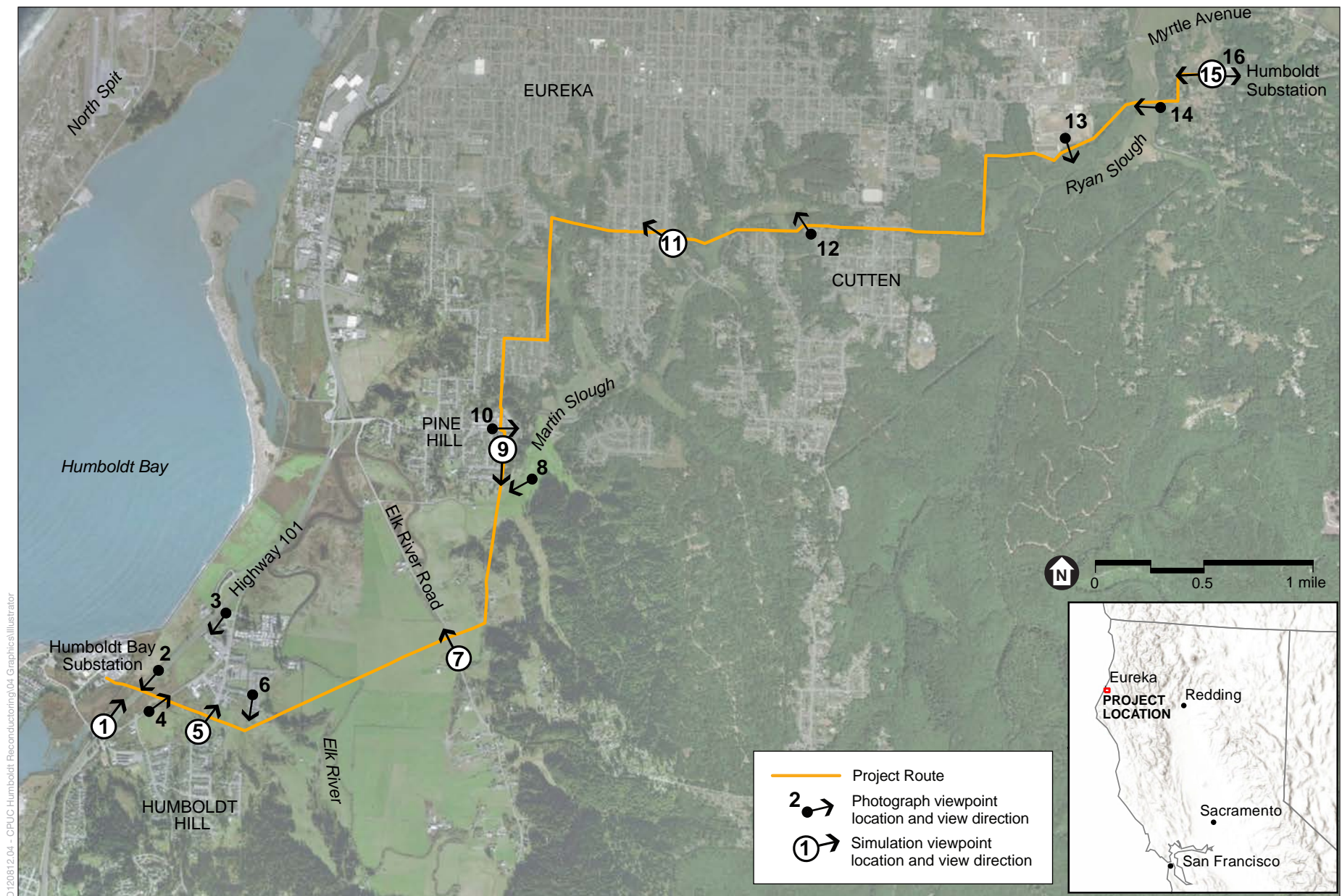
Representative photographs from key observation points (or viewpoints) along the Project alignment are provided in this section. **Figure 3.1-1** shows locations for the representative photographs and viewpoints providing public views in the study area, from which selected digital visual simulations have also been prepared. **Figures 3.1-2a** through **3.1-2d** show representative views within the study area. As depicted on the figures, the study area includes a historic vista point, rural scenic locations such as estuaries and coastal wetlands, agricultural lands, neighborhoods, and public access recreational areas. Descriptions of the photographs in Figures 3.1-2a through 3.1-2d are provided below.

Figure 3.1-2a depicts four representative views from public vantage points near Highway 101. Photos 1 and 2 show two views of existing infrastructure along the western portion of the Project alignment. Existing power poles and lattice towers can be seen in a relatively open rural landscape along Highway 101. Photo 3 depicts a view, as seen from an historic vista point, across Highway 101 showing the Humboldt Bay Substation mid-view. Photo 4 depicts a view of the alignment (perpendicular to the viewer) as seen while along South Broadway.

Photo 5 of **Figure 3.1-2b** depicts an existing lattice tower and the Project alignment perpendicular to the roadway of Humboldt Hill Road. Photo 6 shows Seaview Mobile Estates with poles and a lattice steel tower in the background. Photo 7 depicts existing power lines, the Project's reconductoring route (above and perpendicular to the roadway) and farm structures along Elk River Road. Photo 8 depicts a view from the Eureka Municipal Golf Course with an existing wood pole visible on the hillside to the right.

Photo 9 of **Figure 3.1-2c** depicts street side landscaping, existing power lines, and residences along Gatliff Avenue. Photo 10 depicts the linear complexity of existing power lines along Herrick Avenue. Photo 11 depicts a public view along Campton Road near Grant Elementary School. Existing power lines (a portion of the reconductoring route) are shown along with trees in the school yard (depicted mid-view). Photo 12 shows a view of power lines in a forested residential location at Roth Court.

Photo 13 of **Figure 3.1-2d** shows a view from Redwood Acres Fairground. Existing power poles are shown mid-view along with a fenced arena. Photo 14 depicts a rural agricultural landscape. Existing power poles and lines are shown mid-view, with a mixed conifer redwood forest in the background. Photo 15 and 16 show two views from a rural residential road (along Mitchell Heights Drive) near Humboldt Substation. These photographs show existing power lines and other energy infrastructure in a forested residential context.



SOURCE: TRC, 2019

Humboldt Bay-Humboldt #1 60kV Reconductoring Project

Figure 3.1-1
Viewpoint Locations



1. Highway 101 northbound (looking north) *

* Simulation Viewpoint: Refer to Figure 3.1-1 for Viewpoint Locations



3. Vista Point and Historical Marker near Highway 101 (looking southwest)



2. Highway 101 southbound (looking southwest)



4. South Broadway Street (looking northeast)

Refer to Figure 3.1-1 for Viewpoint Locations

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SOURCE: Environmental Vision, 2019

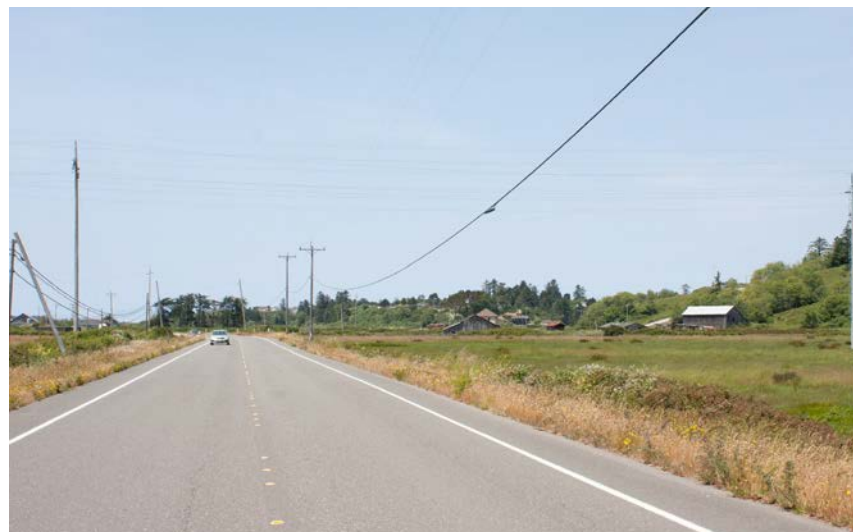
Humboldt Bay-Humboldt #1 60kV Reconductoring Project

Figure 3.1-2a
Representative Views of the Project Route and Vicinity



5. Humboldt Hill Road (looking northeast) *

* Simulation Viewpoint: Refer to Figure 3.1-1 for Viewpoint Locations



7. Elk River Road (looking north) *

* Simulation Viewpoint: Refer to Figure 3.1-1 for Viewpoint Locations



6. Sunshine Way in Seaview Mobile Estates (looking south)



8. Eureka Municipal Golf Course (looking west)

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SOURCE: Environmental Vision, 2019

Humboldt Bay-Humboldt #1 60kV Reconductoring Project

Figure 3.1-2b
Representative Views of the Project Route and Vicinity



9. Gatliff Avenue near Ryan Court (looking south) *
 * Simulation Viewpoint: Refer to Figure 3.1-1 for Viewpoint Locations



11. Campton Road near Grant School (looking northwest) *
 * Simulation Viewpoint: Refer to Figure 3.1-1 for Viewpoint Locations



10. Herrick Avenue near Pinecrest Court (looking east)



12. Roth Court (looking northwest)

DT20812.04 - CPUC Humboldt Reconductoring04 Graphics/Illustrator

SOURCE: Environmental Vision, 2019

Humboldt Bay-Humboldt #1 60kV Reconductoring Project

Figure 3.1-2c
 Representative Views of the Project Route and Vicinity



13. Redwood Acres Fairgrounds (looking south)



15. Mitchell Heights Drive near Humboldt Substation (looking west) *

* Simulation Viewpoint: Refer to Figure 3.1-1 for Viewpoint Locations



14. Mitchell Road looking west across Ryan Slough
Refer to Figure 3.1-1 for Viewpoint Locations



16. Mitchell Heights Drive (looking east)

DT20812.04 - CPUC Humboldt Reconductoring04 Graphics/Illustrator

SOURCE: Environmental Vision, 2019

Humboldt Bay-Humboldt #1 60kV Reconductoring Project

Figure 3.1-2d
Representative Views of the Project Route and Vicinity

Within the study area there are numerous above ground electric utility structures, including Humboldt Bay Substation, transmission lines, and existing power lines, along with other industrial structures interspersed among natural scenic features. As depicted in the photographs, there are scenic qualities alongside industrial elements under existing conditions.

3.1.2 Regulatory Setting

Federal

There are no federal regulations pertaining to aesthetic and visual resources that would be applicable to the proposed Project.

State

California Coastal Act

The California Coastal Act of 1976 established the California Coastal Commission (CCC) and requires the commission to implement and administer the coastal development permit process within the coastal zone. The Act recognizes the value of the coastal zone and includes a declaration that “the permanent protection to the state’s natural and scenic resources is a paramount concern to present and future residents of the state and nation” (Pub. Res. Code §30001. The CCC delegates some implementation authority to local permitting agencies (such as cities and counties) when the CCC has certified a Local Coastal Program (LCP) in a particular area. As detailed in Section 3.10, Land Use and Planning, portions of the Project alignment are located on lands where the CCC retains original permit jurisdiction. Other portions are located within the Humboldt Bay Area Plan Area of the Humboldt County LCP.

California Department of Transportation Scenic Highway Program

In 1963, the California legislature created the Scenic Highway Program to protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to the highways. A highway may be designated as “scenic” depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the travelers’ enjoyment of the view. The Scenic Highway System includes highways that are either eligible for designation or have been designated as such. The Project alignment would cross Highway 101, an eligible State Scenic Highway. There are no officially designated state scenic highways in Humboldt County (Caltrans, 2019).

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction.” The discussion below presents local policies and regulations for

informational purposes only; the CPUC does not consider these regulations “applicable” as that term is used in CEQA.

Humboldt County General Plan

The Scenic Resources section of the Conservation and Open Space Element of the Humboldt County General Plan contains policies intended to protect outstanding scenic resources that may be otherwise adversely affected by land use and development in non-coastal zone areas (Humboldt County, 2017).

SR-G1: Conservation of Scenic Resources. Protect high-value scenic forest, agriculture, river, and coastal areas that contribute to the enjoyment of Humboldt County’s beauty and abundant natural resources.

SR-G2: Support for a Designated Scenic Highway System. A system of scenic highways that increase the enjoyment of, and opportunities for, recreational and cultural pursuits and tourism in the County without detracting from allowed uses.

SR-P1: Working Landscapes. Recognize the scenic value of resource production lands.

SR-P2: Development in Mapped Scenic Areas. In mapped scenic areas, new discretionary and ministerial development shall be consistent with and subordinate to natural contours, hilltops, tree lines, bluffs and rock outcroppings. Visible disturbance and interruption of natural features shall be minimized to the extent feasible.

SR-P3: Scenic Highway Protection. Protect the scenic quality of designated Scenic Highways for the enjoyment of natural and scenic resources, coastal views, landmarks, or points of historic and cultural interest.

SR-S2: Scenic Highway Standards. The following standards apply to mapped Scenic Highways:

- A. ***Visual Buffer Width.*** The width of the visual buffer along the road shall not exceed 200 feet from the edge of the traveled roadway.
- B. ***Permitted Uses.*** Permitted uses shall be allowed except the construction of new off premise billboards is prohibited. Permitted uses that are within the visual buffer area measures may be required to protect scenic qualities of the site.
- C. ***Site Development.*** Buildings and landscaping within the visual buffer shall be designed and located on the site to create a harmonious visual relationship with surrounding development and the natural terrain and vegetation.
 - 1. Existing topography, vegetation, and scenic features of the site shall be retained to the maximum extent possible and incorporated into the proposed development.
 - 2. Structures and signs shall be limited in height, bulk, and siting to be visually compatible with, and subordinate to, the character of surrounding areas.
- D. ***Consideration of Views.*** Structures, signs, and plant materials within the visual buffer shall be constructed, installed, and planted to complement, enhance, and

retain scenic views. Vegetative screening shall be used where needed to prevent significant intrusion or degradation of public views.

- E. *Location and Screening of Unsightly Features.* Potentially unsightly features within the visual buffer area, such as parking lots etc., shall be located in areas not visible from the scenic highway. Where it is not feasible to locate such features out of view, features shall be screened from view by planting and/or fences, walls, or berms. Screening shall utilize primarily natural materials rather than solid fencing, preferably vegetation, in conjunction with low-earth berms.
- F. *Site Grading.* Grading or earth-moving operations within the visual buffer area shall be planned and executed in such a manner that final contours appear to be consistent with the existing terrain both on, and adjacent to, the site.
 - 1. Vegetative cover shall be provided within a reasonable time after grading is completed to prevent visible scars remaining on the land from such operations.
 - 2. Contours altered by grading shall be restored by means of land sculpturing and a cover of topsoil in such a manner as to minimize runoff and erosion and prevent ponding of water.
 - 3. Finished contours shall be planted with native vegetation, so as to require minimum care and to be visually compatible with the existing landscaping.
- G. *Access Roads.* The location and design of access roads within the visual buffer area shall not detract from the scenic quality of the road.
- H. *Utilities.* New, relocated, or existing utility distribution lines within the visual buffer area shall be placed underground whenever feasible. When it is not feasible to place lines underground, they shall be located so as to be inconspicuous from the scenic route wherever feasible. Combined or adjacent rights-of-way and common poles shall be used wherever feasible.

SR-S6: Scenic Highway Map. Until such time as a General Plan Scenic Highway Roadway Map is prepared and adopted, Humboldt County Highways listed in Sections 263.1 through 263.8 of the California Streets and Highways Code shall be considered to be Scenic Highways pursuant to Policy SR-P3, Scenic Highway Protection, and the County shall address the potential for significant impacts to scenic resources during ministerial and discretionary permit review.

Humboldt Local Coastal Program Policies

The Humboldt County LCP contains the following policies pertaining to visual resource protection (Humboldt County, 2014).

3.40 Visual Resource Protection.

30251. The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as

those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

City of Eureka General Plan

The Land Use and Natural Resources elements of the City of Eureka 2040 General Plan contains the following goals and policies that pertain to aesthetics and visual resources (City of Eureka, 2018).

LU-1.12: Attractive Design. Preserve Eureka's unique charm and character by applying design guidance that promotes attractive and well maintained development that carefully integrates the new with the best of the old.

LU-1.13: Lighting. Minimize obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary, and requiring light for development to be directed downward to minimize spill-over onto adjacent properties and reduce vertical glare.

LU-1.16: Public Access. Maintain and improve physical linkages from the community to the coastline, gulches, forests and Eureka's other distinct recreational resources where feasible by creating/ preserving view corridors, enhancing trail and roadway connections, and providing signage and other wayfinding cues.

Goal NR-4: Preservation of significant visual resources that serve as scenic amenities and contribute to Eureka's character.

NR-4.1 View Corridors. Preserve view corridors on public streets that lead to prominent visual resources, such as Humboldt Bay, the waterfront, landmark buildings, gulches and greenways, and surrounding agricultural and timberlands. Such views include the views of the waterfront while looking north along G Street and the views of the Carson Mansion while looking east along 2nd Street. Properly maintained street trees are not considered to obscure view corridors. (RDR)

NR-4.2 Lighting. Require new lighting be designed and configured to minimize light pollution, glare, and spillage. (RDR)

3.1.3 Applicant Proposed Measures

The following measures pertaining to aesthetic and visual resources have been proposed by PG&E and would be implemented as part of the Project.

APM AE-1: Nighttime lighting to minimize potential visual impacts of construction activity. In the unlikely event that nighttime construction activities are necessary, measures such as use of non-glare or hooded fixtures and directional lighting will be used to reduce spillover into areas outside the construction site and minimize the visibility of lighting from off-site locations wherever feasible.

APM AE-2: Construction Cleanup. Construction debris will be picked up regularly from construction areas. The appearance of disturbed land areas will be restored through implementation of re-contouring and/or re-vegetation.

APM AE-3: Use of Galvanized Finish on LDSs, TSPs, and LSTs. Use of a galvanized finish that will weather to a dull, non-reflective patina on new steel poles and lattice towers will reduce potential for a new source of glare resulting from introduction of project elements.

APM AE-4: Design and operation of staging areas to minimize potential visual impacts. Security lighting may be installed at staging areas including helicopter sites. If nighttime security lighting is required in close proximity to sensitive locations such as existing residences, it will be directional and focused to minimize potential spillover or glare with respect to areas outside the staging area, and non-glare or hooded fixtures may be utilized.

3.1.4 Environmental Impacts

Methodology

The analysis of potential visual effects is based on review of a variety of data sources, including Project maps and drawings, aerial and ground level photographs of the Project site and immediate surroundings, a visit to the Project site, local planning documents, and computer-generated visual simulations.

Aesthetic impacts may occur if the Project would alter the perceived visual quality of the environment. This can result from changes to the visual character of the study area, alteration of a scenic vista, changes to a scenic resource, or creation of a new source of light or glare that would affect views in the study area. They are defined as follows:

- **Visual character** refers to the features of the natural (e.g., landforms, vegetation, rock and water features) and built (e.g., buildings, utility infrastructure) features of the landscape that contribute to the public's experience and appreciation of the environment.
- A **scenic vista** is generally considered to be a location from which the public can experience unique and exemplary views, which are typically from elevated vantage points that offer panoramic views of great breadth and depth.
- **Scenic resources** are specifically defined as features that are visible from a state scenic highway.
- **Light** is the amount of luminance emitted from an object and **glare** is the result of a large contrast in luminance between a bright light source and dark background within a viewer's field of vision.

Impacts to visual quality are assessed by estimating the amount of visual change introduced by project components, the degree to which visual changes may be visible to surrounding viewer groups, and the general sensitivity of viewer groups to landscape alterations. Visual sensitivity is reflected as a measurement of the overall susceptibility of an area or viewer group to adverse visual or aesthetic impacts, given the combined factors of:

- **Visual quality:** the overall visual impression or attractiveness of an area as determined by the particular landscape characteristics, including landforms, rock forms, water features, and vegetation patterns, along with structures in a built environment.

- **Viewer types and volumes of use:** the types of people viewing the affected landscape including, for example, motorists traveling along Highway 101 or other specified roadways, coastal visitors or other recreational area users, as well as residents and business patrons in the City of Eureka and unincorporated Humboldt County. Land uses that derive value from the quality of their settings, such as parks or scenic routes, are considered potentially sensitive to changes in visual setting conditions.
- **Viewer exposure:** landscape visibility, viewing distance, viewing angle, extent of visibility, and duration of view. For the purposes of this analysis, viewing distance is described in three general categories. Foreground refers to views observed from within 0.25- to a 0.5-mile from viewer; middle-ground refers to views from the foreground out up to 3 to 5 miles from the viewer; background extends from that middle-ground distance outward, as far as the view extends.

Visual Simulations

To document the visual changes that would result from the Project, visual simulations have been prepared that present before and after images showing the Project from key observation points (see Figure 3.1-1). Simulations were selected based on their context in the landscape with respect to public views.

Figures 3.1-3a through 3.1-3f display existing (top) and simulated (bottom) views of the proposed Project from six viewpoints. Simulations show views from an eligible scenic highway and other travel routes in the coastal zone, along with views from a roadway adjacent to a public school, and in a neighborhood near Humboldt Substation. Detailed descriptions of Figures 3.1-3a through 3.1-3f are provided below.

Figure 3.1-3a (Viewpoint 1) shows an existing and simulated view along north-bound Highway 101. In the upper photograph, existing power lines are depicted crossing Highway 101 parallel to the horizon. The edge of Humboldt Bay Generating Station is shown on the left side of photo (to the west) along with two existing lattice towers supporting existing transmission lines on either side of Highway 101. The simulation depicts an additional lattice tower (of comparable size and form to existing lattice towers) that would be visible as part of the Project. Topped (or shortened) power poles along either side of Highway 101 are also depicted in the simulation.

Figure 3.1-3b (Viewpoint 5) shows an existing and simulated view along Humboldt Hill Road looking north. As depicted in the existing view, several power lines cross the road in this residential location. The simulation depicts an additional lattice tower that would be erected in a vacant lot adjacent to an existing residence along this roadway. Two existing wood poles situated on the right side of the view would be removed by the Project.

Figure 3.1-3c (Viewpoint 7) shows an existing and simulated view along Elk River Road looking north. At this location, existing power lines cross the roadway and traverse through an open agricultural pasture, sparsely populated with rural residences. The simulation depicts a replacement wood pole just left or west of the roadway that is darker than the existing wood pole.

Existing View



Visual Simulation



DT20812.04 - CPUC Humboldt Reconductoring04 Graphics/Illustrator

SOURCE: Environmental Vision, 2019

Humboldt Bay-Humboldt #1 60kV Reconductoring Project

Figure 3.1-3a
Viewpoint 1 - Highway 101 looking North

Existing View



Visual Simulation



D:\2018\12\04 - CPUC Humboldt Reconductoring\04 Graphics\Illustrator

SOURCE: Environmental Vision, 2019

Humboldt Bay-Humboldt #1 60kV Reconductoring Project

Figure 3.1-3b
Viewpoint 5 - Humboldt Hill Road looking North

Existing View



Visual Simulation



DT20812.04 - CPUC Humboldt Reconductoring04 Graphics/Illustrator

SOURCE: Environmental Vision, 2019

Humboldt Bay-Humboldt #1 60kV Reconductoring Project

Figure 3.1-3c
Viewpoint 7 - Elk River Road looking North

Existing View



Visual Simulation



DT20812.04 - CPUC Humboldt Reconducting04 Graphics/Illustrator

SOURCE: Environmental Vision, 2019

Humboldt Bay-Humboldt #1 60kV Reconducting Project

Figure 3.1-3d
Viewpoint 9 - Gatliff Avenue near Ryan Court looking South

Existing View



Visual Simulation



D:\2018\12\04 - CPUC Humboldt Reconductoring\04 Graphics\Illustrator

SOURCE: Environmental Vision, 2019

Humboldt Bay-Humboldt #1 60kV Reconductoring Project

Figure 3.1-3e
Viewpoint 11 - Campton Road near Grant School looking Northwest

Existing View



Visual Simulation



D:\2018\12\04 - CPUC Humboldt Reconductoring\04 Graphics\Illustrator

SOURCE: Environmental Vision, 2019

Humboldt Bay-Humboldt #1 60kV Reconductoring Project

Figure 3.1-3f

Viewpoint 15 - Mitchell Heights Drive near Humboldt Substation looking West

Figure 3.1-3d (Viewpoint 9) shows an existing and simulated view along Gatliff Avenue near Ryan Court looking south. The existing view shows existing wood power poles. The simulated view depicts reconducted power line supported by a slightly taller and darker, wood pole (middle ground) and a slightly taller steel pole (background).

Figure 3.1-3e (Viewpoint 11) shows an existing and simulated view along Campton Road near Grant School looking northwest. Three wood poles are visible in the existing view. The simulation depicts taller, darker wood poles.

Figure 3.1-3f (Viewpoint 15) shows an existing and simulated view along Mitchell Heights Drive (near the eastern terminus of the reconductoring route). The existing view depicts wood power poles supporting power lines adjacent to redwoods and other vegetation. The simulation depicts taller, darker poles on the left or south side of the road. The wood poles on the north side of the road would not be affected by the Project.

Discussion

a) **Whether the Project would have a substantial adverse effect on a scenic vista:** ***LESS THAN SIGNIFICANT IMPACT.***

Construction

Construction of the proposed Project would occur predominantly within existing rights of way in a semi-rural coastal environment. Grading, grubbing of vegetation, tree removal, and soil disturbance would affect public views in this landscape—altering colors and textures of the site and surroundings to facilitate pole replacement and installation of four lattice steel towers. During Project construction, several pull sites and staging areas would be established where materials and construction equipment would be staged, utilizing temporary construction easements for this purpose. Cyclone fencing and portable sanitation facilities may also be placed at the staging areas. Guard structures with cross arms and nets would be installed at crossings and/or major roadways such as Highway 101, Broadway Street, and Humboldt Hill Road; reel trailers would be staged at pull sites or along access roads. The presence of equipment, materials, and sanitation facilities would present visual intrusions into an otherwise scenic area, temporarily affecting the quality of rural coastal views for the 8-month duration of construction. Applicant proposed measures have been included as part of the Project to reduce construction-related impacts associated with impacts to scenic vistas. APM AE-1 contains measures to reduce glare from nighttime construction lighting. APM AE-2 stipulates that construction debris be removed from the sites on a daily basis. APM AE-4 includes provisions for minimizing impacts related to staging areas. With implementation of these measures, Project construction would have a less than significant impact on scenic vistas.

Operation and Maintenance

The proposed Project would include reconductoring of power lines, replacement of wood poles with steel poles and wood poles, and four new lattice steel towers. As described in

Chapter 2, Project Description, the replacement poles would be placed within the existing alignment and within 5 to 10 feet of their current locations, with the exception of two poles placed 40 to 60 feet away from their respective locations. The existing poles range in height from 44 to 73 feet above ground and replacement poles would range from 43 to 90 feet above ground. The four lattice steel towers would be 85 to 115 feet tall, yet set within an existing utility corridor with structures of comparable height and form. The proposed lattice steel towers and corresponding longer span length between the towers would allow for the removal of 14 existing wood poles and topping (or structural shortening) of seven poles along Highway 101. The proposed lattice towers and placement of new poles or topping of existing poles would not result in substantial visual obstructions that would obscure existing views or otherwise compromise scenic vistas in the study area. **Figure 3.1-2a** (photo 3) shows an historic vista point overlooking Highway 101 and Humboldt Bay. The Project alignment would be visible from this vista point, but it would not obstruct views from this site. As depicted in the simulations, the replacement of Project structures would present minor alterations to existing views along travel routes and in residential neighborhoods.

Under existing conditions, electrical energy conveyance structures are present and visible in the study area. The Project structures are similar in form to what is currently within the utility corridor. New wood poles would be darker than existing poles; however, they would gradually soften over time to a lighter tone that would be similar to the existing poles they would be replacing. Although the Project's proposed new structures would be noticeable, the placement of these components along with removal and replacement of poles would not present a major visual change to the site and surroundings.

Maintenance of the Project would consist of periodic monitoring of the lines and structures and trimming and/or removal of vegetation within the existing utility corridor. Maintenance activities would occur in a manner that would be consistent with current practices. Given that the Project includes placement of comparable structures within an existing utility corridor with no change to current maintenance for these structures, the visual change to scenic views would constitute a less than significant impact.

Mitigation: None required.

- b) Whether the Project would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway: *NO IMPACT.***

Construction and Operation

The Project would not damage scenic resources located in a designated state scenic highway corridor. The Project alignment would cross Highway 101, which is an eligible state scenic highway, but has not yet been officially designated by the Scenic Highway Program. No impact would occur from construction or implementation of the proposed Project.

- c) Whether the Project would substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point), or if the project is in an urbanized area, whether it would conflict with applicable zoning and other regulations governing scenic quality: *LESS THAN SIGNIFICANT IMPACT.***

Construction

As described under criterion a), construction of the Project would include staging areas, pull sites, equipment, and materials that would present visual intrusions, temporarily affecting the quality of some rural coastal views for the 8-month duration of construction. The Project's reconductoring route would traverse Highway 101 and would require the temporary placement of several guard structures to protect public safety during construction. Although the guard structures would be visible and would moderately interfere with coastal views, the structures would be removed at the conclusion of construction. APM AE-2 would ensure that construction debris would be removed from the sites daily and contains measures for site restoration; APM AE-4 would reduce visual impacts associated with the staging areas in sensitive locations where public views would be potentially impacted. Construction-related visual impacts would be temporary and less than significant.

Operation and Maintenance

Following construction, the Project's staging areas would be returned to their prior condition; the sites would be cleared of construction materials and debris, revegetated or otherwise restored. Guard structures, utilized during construction would be dismantled and removed from the sites; equipment and materials would also be removed. Public views of the sites and surroundings including views from the vista point along Highway 101 would contain new industrial elements such as the Project's lattice towers, and tubular steel poles. However, the Project is designed to include removal of some existing poles, along with shortening heights of some structures that would remain. All Project structures would be placed within the existing utility corridor, in many cases alongside comparable, existing electrical support structures.

As previously described, the utility corridor would be maintained in a manner that is consistent with current practices. Vegetation and tree removal within the existing PG&E ROW would periodically occur. Such maintenance practices would not be modified by the proposed Project. Operation and maintenance of the Project would not degrade public views of the site and surroundings; impacts would be less than significant.

Mitigation: None required.

- d) Whether the Project would create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area: *LESS THAN SIGNIFICANT IMPACT.***

Construction

The Project would require construction/security lighting that would present temporary impacts during construction, adversely affecting nighttime views. However, per APM AE-1

and APM AE-4, the lighting required for construction and security lighting at the staging areas would be directed downward to minimize the visual intrusion to the public and to neighboring residences. Additionally, APM AE-2 provides measures to restore (through re-contouring and revegetation) the land areas disturbed during construction. The Project does not include any permanent lighting elements that would affect views in the area. Therefore, visual disturbance associated with construction would not be permanent. Although visual impacts associated with the lighting required for construction would occur, they would not persist beyond the 8-month duration of construction. Implementation of APMs AE-1 and AE-4 would reduce impacts to less than significant.

Operation and Maintenance

As described in APM AE-3, the Project's use of a galvanized finish on the steel poles and lattice towers would weather such that the structures would become non-reflective over time. This design feature would decrease the potential for glare along public roads and within the utility corridor. With implementation of the design features in APM AE-3, impacts associated with operation and maintenance of the Project would be less than significant.

Mitigation: None required.

3.1.5 References

California Department of Transportation (Caltrans), 2011. California State Highway Mapping System. Officially Designated State Scenic Highways and Parkways by County, updated 2011. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed May, 2019.

City of Eureka, 2018. *City of Eureka 2040 General Plan*. Amended May 2018. Available at: [http://eureka2040gpu.com/Links/pdfs/Eureka%20General%20Plan%20May2018%20Final%20\(web\).pdf](http://eureka2040gpu.com/Links/pdfs/Eureka%20General%20Plan%20May2018%20Final%20(web).pdf).

Humboldt County, 2014. *Humboldt County General Plan Volume II; Humboldt Bay Area Plan of the Humboldt County Local Coastal Program*. Amended December 2014. Available at: <https://humboldt.gov/DocumentCenter/View/50844/Humboldt-Bay-Area-Local-Coastal-Plan>.

Humboldt County, 2017. *Humboldt 21st Century General Plan: Humboldt County General Plan for Areas Outside the Coastal Zone*. Adopted October 23, 2017. Available at: <https://humboldt.gov/DocumentCenter/View/61984/Humboldt-County-General-Plan-complete-document-PDF>.

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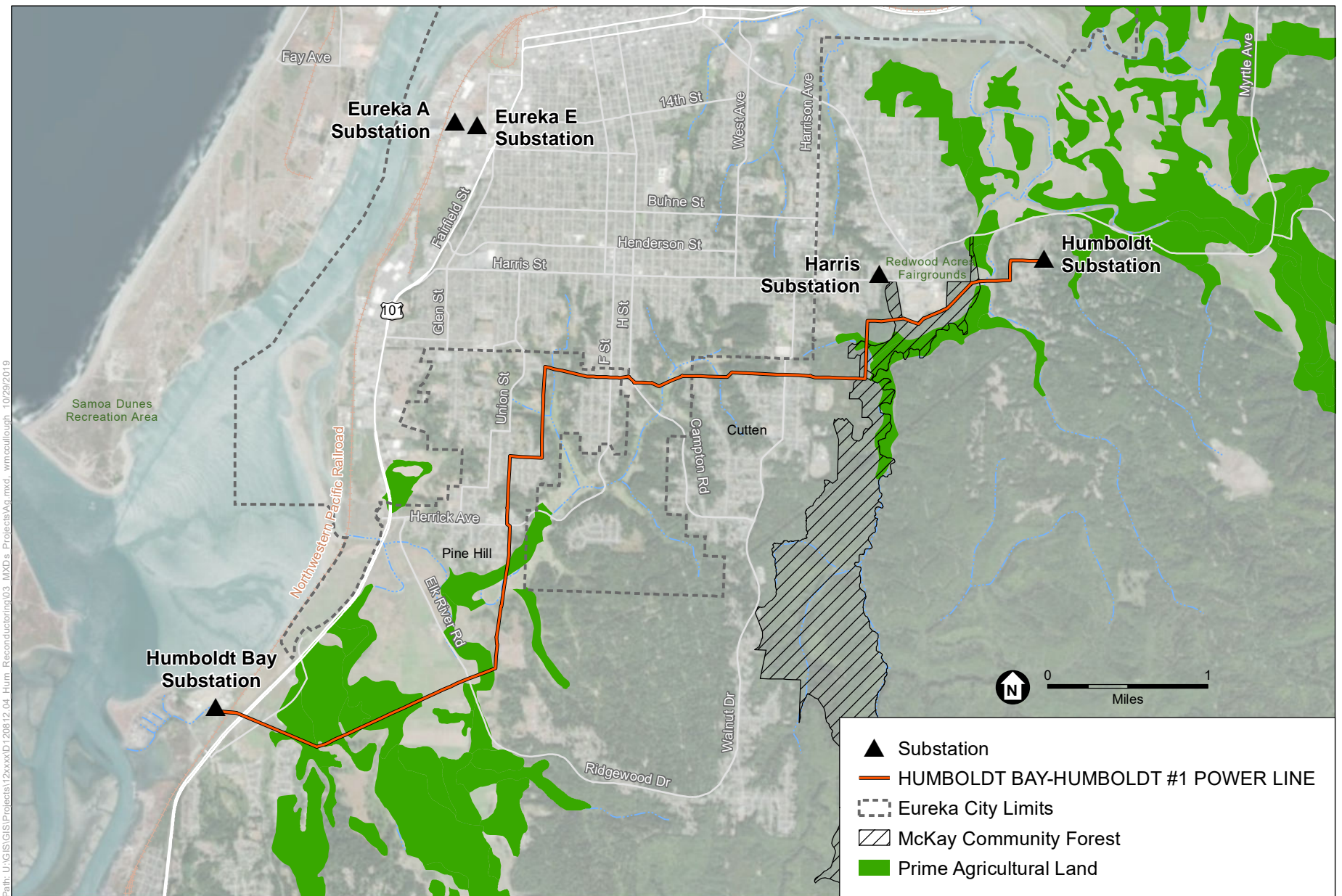
3.2 Agriculture and Forestry Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
2. AGRICULTURE AND FORESTRY RESOURCES —				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

This section identifies and evaluates issues related to agriculture and forestry resources in the context of the proposed Project. It includes a description of agricultural and designated farmlands, the absence of Williamson Act contracts within the Project alignment; and forest and timberland zoning, and related uses. It also includes discussion of applicable state, regional, and local plans and programs, and an evaluation of potential impacts associated with construction, operation, and maintenance of the Project. For the purpose of this analysis, the study area was defined as the Project footprint, including areas of vegetation clearance or tree removal, and areas of temporary or permanent ground disturbance.

3.2.1 Environmental Setting

The proposed Project would be located within existing PG&E right-of-way (ROW); the alignment traverses agricultural lands and forests in unincorporated Humboldt County and the southern portion of the City of Eureka. The majority of agricultural lands crossed by the Project alignment are located west of Elk River Road. According to the Central Humboldt Community Plan Areas with Prime Soils Map for Humboldt County, the Project crosses over one linear mile of prime agricultural land as shown on **Figure 3.2-1** (Humboldt County, 2015).



SOURCE: PG&E, 2018; Humboldt County, 2015

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 3.2-1
Prime Agricultural Land in the Project Vicinity

The power line also crosses through forest lands in the eastern portion of the study area including the McKay Community Forest, a 1,000-acre tract of Douglas Fir and coastal redwood forest, managed by the Humboldt County Department of Public Works (Humboldt County, 2019). The Project alignment would cross 0.68 linear mile of lands zoned as Timberland Production (Humboldt County, 2015).

3.2.2 Regulatory Setting

Federal

There are no federal regulations applicable to the Project related to agriculture or forestry resources.

State

California Farmland Mapping and Monitoring Program

The California Farmland Mapping and Monitoring Program (FMMP) was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands over time. The FMMP is a non-regulatory program and provides analysis of agricultural land use and conversion trends throughout California. Agricultural land is generally rated according to soil quality and irrigation status. As defined by the FMMP, “prime farmland” has the best physical and chemical composition to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. To be classified as prime farmland, the land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date (California Department of Conservation [CDC], 2019). Humboldt County is currently in the process of conducting a County-wide soil survey in conjunction with the Natural Resources Conservation Service (NRCS). Consequently, Humboldt County is not currently included in the CDC’s FMMP (Humboldt County, 2017).

California Land Conservation Act of 1965 (Williamson Act)

The California Land Conservation Act of 1965, also known as the Williamson Act, is the state’s primary program aimed at conserving private land for agricultural and open space uses. The Williamson Act provides a mechanism through which private landowners can contract with counties and cities to voluntarily restrict their land to agricultural and compatible open-space uses. There are no lands within the study area currently enrolled in this program.

California Public Resources Code

The Public Resources Code governs forestry, forests, and forest resources, as well as range and forage lands, within the state. “Forest land” is defined by Public Resources Code Section 12220(g) as “land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.” “Timberland” is defined by Public Resources Code Section 4526 as “land, other than land owned by the federal government..., which is available for, and capable of,

growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees.”

California Government Code

Chapter 6.7 of the Government Code (§§51100-51155) regulates timberlands within the state. “Timberland production zone” is defined in Section 51104(g) as an area that has been zoned pursuant to Government Code Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses. In this context, “compatible uses” include any use that “does not significantly detract from the use of the property for, or inhibit, growing and harvesting timber” (Gov’t Code §51104(h)). Watershed management, grazing, and the erection, construction, alteration, or maintenance of electric transmission facilities are examples of compatible uses. The general plans of cities and counties may use the term “timberland preserve zone,” which Government Code Section 51104(g) defines as equivalent to “timberland production zone.” The Project would be located partially in a timber production zone and would cross through the McKay Community Forest, a working demonstration forest, managed by Humboldt County (as shown on Figure 3.2-1).

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction.” The discussion below presents local policies and regulations for informational purposes only; the CPUC does not consider these regulations “applicable” as that term is used in CEQA.

Humboldt County General Plan

Utilities and energy facilities¹ are considered allowable uses within the Timberland, Agricultural Exclusive, and Agricultural Grazing land use designations, as stipulated in the Land Use Element of the Humboldt County General Plan. The Agriculture and Timber Resources chapter contains specific goals and policies pertaining to agriculture and forestry resources (Humboldt County, 2017).

AG-G2: Preservation of Agricultural Lands. Agricultural land preserved to the maximum extent possible for continued agricultural use in parcel sizes that support economically feasible agricultural operations.

AG-S7: Prime Agricultural Land. Prime Agricultural land per California Government Code Section 51201(c) means:

¹ As defined in Table 4-G of the Humboldt County General Plan, allowable uses for utility and energy facilities include the erection, construction, alteration, or maintenance of gas, electric, water, or communications transmission facilities, and wind or hydroelectric solar or biomass generation, and other fuel or energy production facilities.

- A. All land which qualifies for rating as Class I or Class II in the Soil Conservation Service land use capability classifications;
- B. Land which qualifies for rating 80 through 100 in the Storie Index Rating;
- C. Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the U.S.D.A.
- D. Land planted with fruit or nut bearing trees, vines, bushes or crops which have a non-bearing period of less than five years and which will normally return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than \$200.00 per acre.

FR-G1: Forest Resources. Public and private forests producing a wealth of multiple economic and natural resource values and ecosystem services. Constructive dialog and cooperation between state, federal and local agencies and private property owners and a regulatory framework that maximizes private and public interests and ecosystem services.

Humboldt County Zoning

The Humboldt County Zoning Code was adopted pursuant to Title 7 of the Government Code and Section 30500 of the Public Resources Code. The Zoning Code is intended to promote the welfare, orderly development, and economic stability of Humboldt County and to help implement and remain consistent with the General Plan and Local Coastal Program (Humboldt County, 2017).

City of Eureka General Plan

The General Plan contains the goals, policies and implementation programs to guide Eureka's growth, revitalization, and conservation through 2040. Section 3.2 of the General Plan contains the Agriculture and Timberlands sections, which contains the following goal applicable to the Project.

Goal AG-1: Preservation of agricultural and timber lands and aquaculture and fishing operations within and surrounding Eureka, enhanced forest ecosystems, reduced land use conflicts, and a sustained yield of forest, agricultural, and fisheries products.

3.2.3 Applicant Proposed Measures

The following measures pertaining to agriculture and forestry resources have been proposed by PG&E and would be implemented as part of the proposed Project.

APM AE-2: Construction Cleanup. Construction debris will be picked up regularly from construction areas. The appearance of disturbed land areas will be restored through implementation of re-contouring and/or re-vegetation.

3.2.4 Environmental Impacts

Approach to Analysis

To assess potential direct and indirect impacts to agricultural and forestry resources, the analysis examines the location and type of proposed Project activities, with respect to existing land use designations in the Humboldt County and Eureka general plans, and evaluates potential conflicts with uses proposed as part of the Project. This analysis focuses on whether construction, operation, or maintenance of the Project would convert prime farmland, conflict with existing Williamson Act agricultural land protections, or utilize lands in conflict with designated resource protections for timber or agricultural lands. For the purposes of this analysis, “prime farmland” is considered to be land meeting the criteria identified in the Humboldt County General Plan Policy AG-S7 for prime agricultural land, given that Humboldt County is not within an area mapped by FMMP.

Discussion

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use: *LESS THAN SIGNIFICANT IMPACT.***

As discussed in the setting, the proposed Project crosses land considered prime agricultural land by Humboldt County (see Figure 3.2-1). The Project would include ground disturbing activities to construct foundations for the proposed four new lattice steel towers and for replacing poles on lands designated by Humboldt County as prime agricultural land. Although construction of the Project would impact and disturb these lands, the Project would not permanently convert prime agricultural land, as the utility corridor has already been established across these lands and is not proposed to be modified as part of the Project.

As noted in the Project Description, replacement poles for the Project reconductoring would be located within the existing alignment and placed within 5 to 10 feet of the location of existing poles, with the exception of two poles that would need to be placed 40 to 60 feet away from the existing pole locations to provide a safe distance from an existing gas line. The Project’s construction would include the use of pull sites, staging areas and landing zones to facilitate material and equipment storage. The Project staging sites may require temporary easements and would generally be located upon previously disturbed lands; however, temporary impacts to agricultural lands could occur. Following construction, per APM AE-2, disturbed lands would be restored and revegetated at the conclusion of the construction phase.

Maintenance of the Project would consist of vegetation removal, trimming, and or removal of trees within the established utility corridor to facilitate regular monitoring of the power lines for public safety and fire protection. Such activities would be consistent with current practices. The Project would not alter such practices. Impacts to agricultural lands would be less than significant.

Mitigation: None required.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract:
NO IMPACT.

All Project construction, operation, and maintenance would take place within existing PG&E-ROW, or, in the case of the proposed staging areas, landing zones and pull sites, through temporary easements. The Project does not propose and would not include any change to existing zoning, nor would the Project utilize lands subject to a Williamson Act agreement. Thus, the Project would not conflict with Williamson Act contracts or existing zoned, allowable uses in the study area. There would be no impact.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g): ***NO IMPACT.***

The Project's alignment would include lands zoned as timberland production within the existing PG&E owned utility corridor. As PG&E retains ROWs to provide and maintain electrical structures within the utility corridor, and erection, construction, alteration, and maintenance of energy facilities is an allowable use in timberland production designated lands, there would be no conflict or rezoning required to implement the Project. No change to existing zoning is proposed as part of the Project. There would be no impact.

d) Result in the loss of forest land or conversion of forest land to non-forest use:
LESS THAN SIGNIFICANT IMPACT.

As described in criterion c), the Project would utilize an existing utility ROW owned by PG&E that crosses through forest lands; however, no forest land would be converted to non-forest use as a result of the Project. Consistent with current practices, the utility corridor would be maintained in a manner that allows for adequate vegetation clearances for public safety and to decrease risk of combustion in the event of a fire. This routine maintenance would involve some tree pruning and removal, but would not result in the conversion of forest land to non-forest uses. Forests surrounding the utility corridor would continue to be managed with no alteration resulting from construction, operation, and maintenance of the Project. Impacts to forest lands would be less than significant.

Mitigation: None required.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use: ***NO IMPACT.***

The Project would involve installation of structures within an existing utility corridor, in an alignment that crosses agricultural and forest lands. No conversion of farmland or forest would occur as a result of the Project.

The Project may temporarily utilize agricultural lands (outside of the utility corridor) for the staging areas, pull sites, and landing zones during construction. Although the use of these lands for staging of materials and equipment would include ground disturbing activities, per

APM AE-2, the sites would be restored following construction such that no permanent changes resulting in the loss of agricultural lands would occur. There would be no impact.

3.2.5 References

- California Department of Conservation (CDC), 2019. Farmland Mapping and Monitoring Program. Prime Farmland and Farmland of Statewide Importance. Available online: https://www.conservation.ca.gov/dlrp/fmmp/Pages/prime_farmland_fmmp.aspx. Accessed August 26, 2019.
- County of Humboldt, 2015. General Plan Update Central Humboldt Community Plan Area with Prime Soils. Available online: <https://humboldt.gov/DocumentCenter/View/51437/Central-Humboldt-Prime-Soils-Map-PDF?bidId=>. Accessed August 26, 2019.
- County of Humboldt 2019. McKay Community Forest <https://humboldt.gov/mckayforest>,
- County of Humboldt 2019. McKay Community Forest Trail Plan <https://humboldt.gov/DocumentCenter/View/71096/McKay-Trail-Plan-1-30-2019-full-document>.
- County of Humboldt, 2017. Humboldt County General Plan Land Use Designation Maps South Eureka. Available online: <https://humboldt.gov/575/Map-Book>. Accessed August 26, 2019.

3.3 Air Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
3. AIR QUALITY —				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.				
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.3.1 Environmental Setting

Air quality is a function of both the rate and location of pollutant emissions under the influence of meteorological conditions and topographic features that influence pollutant movement and dispersal. Atmospheric conditions such as wind speed, wind direction, atmospheric stability, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants, which affects air quality.

Regional Topography, Meteorology, and Climate

In general, the climate of northern coastal California is characterized by cool summers and mild winters with frequent fog and significant amounts of rain. In coastal areas, the ocean helps to moderate temperatures year-round. Further inland, the summers are hotter and drier and the winters colder and snowier. At higher elevations in inland areas, it is cooler in the summers and snowier in the winter. The average annual rainfall in Humboldt County ranges from 38 inches in Eureka to 141 inches in Honeydew. Approximately 90 percent of the annual precipitation falls between October and April. Higher rainfall in winter often influences high river levels. Winter snowfall is common at higher elevations. The dry season is between May and September (North Coast Unified Air Quality Management District [NCUAQMD], 1995).

Average temperatures on the coast in Eureka range from the low 60s Fahrenheit in the summer to the low 40s during the winter. Inland average temperatures, such as in Willow Creek or Hoopa, range from the 90s to the 30s. On the coast, summer fog is common when inland temperatures rise (NCUAQMD, 1995).

Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to drive the movement and dispersal of air pollutants. Winds control the rate and dispersion of local pollutant emissions. In the North Coast Air Basin

(NCAB), dominant winds exhibit a seasonal pattern, especially in coastal areas. In the summer months, strong north to northwesterly winds are common. During the winter, storms from the South Pacific increase the percentage of days with winds from southerly quadrants. Wind direction often assumes a daily pattern in the river canyons that empty into the Pacific. In the morning hours, cool air from higher elevations flows down the valleys while later in the day at lower elevations air heats up and this pattern is reversed as airflow heads up the canyon. These airflows are often quite strong. Offshore and onshore flows are also common along the coast and are associated with pressure systems in the area. Onshore flows frequently bring foggy cool weather to the coast, while offshore flows often blow fog away from the coast and bring sunny, warm days (NCUAQMD, 1995).

Humboldt County commonly experiences two types of inversions, vertical and horizontal, that affect the vertical depth of the atmosphere through which pollutants can be mixed. Vertical air movement is important in spreading pollutants through a thicker layer of air. Horizontal movement is important in spreading pollutants over a wider area. Upward dispersion of pollutants is hindered wherever the atmosphere is stable; that is, where warm air overlies cooler air below (NCUAQMD, 1995).

Radiation inversion occurs when the air layer near the surface of the ground cools and may extend upward several hundred feet. Radiation inversion in Humboldt County is found in the night and early mornings almost daily, but is more prominent from late fall to early spring when there is less sunlight and it is cooler. Radiation inversion tends to last longer into the morning during the winter months than in the summer.

Subsidence inversion is caused by downward moving air aloft, which is common in the area of high pressure along and off the coast. The air warms at a rate of 5.5 degrees Fahrenheit per 1,000 feet as it descends. Thus, it arrives at a lower height warmer than the air just below and limits the vertical mixing of air. Subsidence inversions often affect a large area and are more common during the summer months. These inversions, which usually occur from late spring through the early fall, can be very strong and shallow due to cooling of the lower layers from the cool ocean water (NCUAQMD, 1995).

Criteria Air Pollutants

The U.S. Environmental Protection Agency (USEPA) has identified the following criteria air pollutants that are a threat to public health and welfare. These pollutants are called “criteria” air pollutants because standards have been established for each of them to meet specific public health and welfare criteria (see Section 3.3.2, Regulatory Setting).

Ozone

Ozone (O₃) is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and that can cause substantial damage to vegetation and other materials. Ozone is not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and oxides of nitrogen (NO_x), including nitrogen dioxide (NO₂). ROG and NO_x are known as precursor

compounds for ozone. Significant ozone production generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for approximately three hours.

Ozone is a regional air pollutant because it is not emitted directly by sources, but is formed downwind of sources of ROG and NO_x under the influence of wind and sunlight. Ozone concentrations tend to be higher in the late spring, summer, and fall, when the long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, like ozone.

Particulate Matter

Respirable particulate matter (PM₁₀) and fine particulate matter (PM_{2.5}) represent fractions of particulate matter that can be inhaled into air passages and the lungs and can cause adverse health effects. Particulate matter in the atmosphere results from many kinds of dust- and fume-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as demolition and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect. Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain absorbed gases (e.g., chlorides or ammonium) that may be injurious to health. Particulates can also damage materials and reduce visibility.

Other Criteria Pollutants

Carbon monoxide (CO) is a non-reactive pollutant that is a product of incomplete combustion and is mostly associated with motor vehicle traffic. High CO concentrations develop primarily during winter when periods of light winds combine with the formation of ground level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia.

Sulfur dioxide (SO₂) is produced through combustion of sulfur or sulfur-containing fuels such as coal. SO₂ is also a precursor to the formation of atmospheric sulfate and particulate matter (PM₁₀ and PM_{2.5}) and contributes to potential atmospheric sulfuric acid formation that could precipitate downwind as acid rain. Lead has a range of adverse neurotoxin health effects, and was formerly released into the atmosphere primarily via leaded gasoline. The phase-out of leaded gasoline has resulted in decreasing levels of atmospheric lead.

Toxic Air Contaminants

Toxic Air Contaminants (TACs) are airborne substances that are capable of causing short-term (acute) and/or long-term (chronic or carcinogenic, i.e., cancer-causing) adverse human health effects (e.g., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles,

dry cleaners, industrial operations, and painting operations. The current California list of TACs includes nearly 200 compounds, including Diesel Particulate Matter (DPM) emissions from diesel-fueled engines (CARB, 2011).

Existing Air Quality

The North Coast Unified Air Quality Management District (NCUAQMD) is the local air district responsible for air quality within the NCAB. The NCUAQMD maintains a regional monitoring network that measures the ambient concentrations of criteria pollutants in the NCAB. Ambient air quality measurements from air monitoring stations maintained by NCUAQMD help to determine the level of air quality in the local area. The closest air quality monitoring station to the proposed Project site is the Eureka-Jacobs station, approximately 3 miles northeast of Humboldt Bay Substation and 3.5 miles west of Humboldt Substation. **Table 3.3-1** shows a 5-year (2014 through 2018) summary of ozone, NO₂, PM₁₀, and PM_{2.5} data monitored at the Eureka-Jacobs station. The data are compared to the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS).

**TABLE 3.3-1
AIR QUALITY DATA SUMMARY (2014-2018) FOR THE STUDY AREA**

Pollutant	Standard	Monitoring Data by Year				
		2014	2015	2016	2017	2018
Ozone, O ₃						
Highest 1-Hour Average, ppm		0.060	0.054	0.047	0.063	0.045
Days over State Standard	0.09	0	0	0	0	0
Highest 8-Hour Average, ppm		0.044	0.045	0.045	0.059	0.041
Days over State/National Standards	0.070	0	0	0	0	0
Nitrogen Dioxide, NO ₂						
Highest 1-Hour Average, ppm		0.035	0.026	0.048	0.022	0.058
Days over National Standard	0.100	0	0	0	0	0
Annual Average, ppm		0.007	0.008	0.007	0.007	0.007
Exceed State Standard?	0.030	No	No	No	No	No
Respirable Particulate Matter, PM ₁₀						
Maximum 24-Hour Average (µg/m ³)		104.0	54.0	53.0	114.0	71.0
Estimated Days over State Standard	50	*	*	*	*	*
State Annual Average (µg/m ³)		17.3	17.7	15.3	18.1	18.1
Exceed State Standard?	20	No	No	No	No	No
Fine Particulate Matter, PM _{2.5}						
Highest 24-Hour Average, µg/m ³		21.2	18.6	20.0	49.0	39.6
Estimated days over National Standard	35	*	0	0	3.1	5.9
Annual Average, µg/m ³		5.6	5.9	6.1	8.2	7.8
Exceed State/National Standards?	12	No	No	No	No	No

NOTES: ppm = parts per million; µg/m³ = micrograms per cubic meter; * insufficient data

^a On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over 3 years, is equal to or less than 0.070 ppm. USEPA will issue final designations by October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the ozone level in the area.

SOURCE: CARB, 2019; USEPA, 2019

Between 2014 and 2018, as shown in Table 3.3-1, the state 24-hour average PM₁₀ standard was exceeded at least once a year during the 5-year period; however, there is insufficient data to estimate the total number of exceedance days. In addition, the national 24-hour PM_{2.5} standard was estimated to have been exceeded three times in 2017 and six times in 2018 during the 4-year period with adequate data. All other pollutant standards for each averaging time were not exceeded during the 5-year period.

Attainment Status

The Humboldt County region's attainment status for the criteria air pollutants are summarized in **Table 3.3-2** (state designations are also provided). The Humboldt County region is considered a federal unclassified area for PM₁₀ and as unclassified/attainment for all other federal standards. California law mandates CAAQS, which are often more stringent than national standards. For the Humboldt County region, all the CAAQS are designated as unclassified/attainment except PM₁₀ for which the region is classified as nonattainment.

**TABLE 3.3-2
HUMBOLDT COUNTY ATTAINMENT STATUS**

Pollutant and Averaging Time	Designation/Classification	
	State Standards	Federal Standards
Ozone (1-hour)	Attainment	No Federal Standard
Ozone (8-hour)	Attainment	Unclassified/Attainment
Carbon Monoxide	Attainment	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified/Attainment
Respirable Particulate Matter (PM ₁₀)	Nonattainment	Unclassified
Fine Particulate Matter (PM _{2.5})	Attainment	Unclassified/Attainment
Lead	Attainment	Unclassified/Attainment
Visibility Reducing Particles	Unclassified	No Federal Standard
Sulfates	Attainment	No Federal Standard
Hydrogen Sulfide	Attainment	No Federal Standard
Vinyl Chloride	Unclassified	No Federal Standard

NOTE: California Air Resources Board (CARB) makes area designations for ten criteria pollutants (O₃, CO, NO₂, SO₂, PM₁₀, PM_{2.5}, lead, visibility reducing particles, sulfates, and hydrogen sulfide). CARB does not designate areas according to the vinyl chloride standard.

SOURCE: CARB, 2018

Sensitive Receptors

Some receptors are considered more sensitive than others to air pollutants. The reasons for greater than average sensitivity include age, pre-existing health problems, proximity to emissions sources and/or duration of exposure to air pollutants. Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality-related health problems

than the general public. Residential areas are considered sensitive to poor air quality because people usually stay at home for extended periods of time, with greater associated exposure to ambient air quality. Recreational uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

Approximately 2.4 miles of the Project alignment is within residential areas, where the existing line is along sidewalks or within residential backyards. Four schools are located within 500 feet of construction work areas; the closest, Grant Elementary School, is located across the street (approximately 50 feet) from the Project alignment.

3.3.2 Regulatory Setting

Air quality within the NCAB is addressed through the efforts of various federal, State, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The air pollutants of concern and agencies primarily responsible for improving the air quality within the NCAB and the pertinent regulations are discussed below.

Criteria Air Pollutants

The USEPA is required by the federal Clean Air Act (CAA) to identify and establish NAAQS to protect public health and the environment. The federal CAA identifies two types of NAAQS: primary and secondary. Primary standards provide public health protection, including protecting the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

The USEPA has set NAAQS for six principal pollutants, called criteria air pollutants. These criteria air pollutants include O₃, NO₂, SO₂, CO, PM, and lead. The original indicator for PM was total suspended particulates; currently the standards are in terms of PM₁₀ and PM_{2.5}. **Table 3.3-3** presents the current NAAQS (and state ambient air quality standards) and provides a brief discussion of the principal sources for each pollutant.

The USEPA classifies air basins (or portions thereof) as “attainment” or “nonattainment” for each criteria air pollutant, based on whether or not the NAAQS had been achieved. The classification is determined by comparing actual monitoring data with the standards. “Unclassified” is defined by the federal CAA as any area that cannot be classified, on the basis of available information, as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant. Furthermore, an area may be designated attainment with a maintenance plan (also known as a maintenance area), which means that an area was previously nonattainment for a criteria air pollutant but has since been redesignated as attainment. These areas have demonstrated through modeling they have sufficient controls in place to meet and maintain the NAAQS.

**TABLE 3.3-3
STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS AND MAJOR SOURCES**

Pollutant	Averaging Time	State Standard	National Standard	Major Pollutant Sources
Ozone	1 hour	0.09 ppm	---	Formed when reactive organic gases (ROG) and nitrogen oxides (NO _x) react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
	8 hour	0.070 ppm	0.070 ppm	
Carbon Monoxide	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hour ¹	9.0 ppm	9 ppm	
Nitrogen Dioxide	1 hour	0.18 ppm	100 ppb	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
	Annual Avg.	0.030 ppm	0.053 ppm	
Sulfur Dioxide	1 hour	0.25 ppm	75 ppb	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	3 hour	---	0.5 ppm ²	
	24 hour	0.04 ppm	0.14 ppm	
	Annual Avg.	---	0.030 ppm	
Respirable Particulate Matter (PM ₁₀)	24 hour	50 ug/m ³	150 ug/m ³	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	Annual Avg.	20 ug/m ³	---	
Fine Particulate Matter (PM _{2.5})	24 hour	---	35 ug/m ³	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; Also, formed from photochemical reactions of other pollutants, including NO _x , sulfur oxides, and organics.
	Annual Avg.	12 ug/m ³	12.0 ug/m ³	
Lead	Monthly Ave.	1.5 ug/m ³	---	Present source: lead smelters, battery manufacturing and recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	---	1.5 ug/m ³	
Hydrogen Sulfide	1 hour	0.03 ppm	No National Standard	Geothermal power plants, petroleum production and refining
Sulfates	24 hour	25 ug/m ³	No National Standard	Produced by the reaction in the air of SO ₂ .
Visibility Reducing Particles	8 hour	Extinction of 0.23/km; visibility of 10 miles or more	No National Standard	See PM _{2.5} .
Vinyl chloride	24 hour	0.01 ppm	No National Standard	Polyvinyl chloride and vinyl manufacturing.

NOTE: ppb = parts per billion; ppm = parts per million; ug/m³ = micrograms per cubic meter.

¹ A more stringent 8-hour carbon monoxide state standard exists around Lake Tahoe (6 ppm).

² Secondary national standard.

SOURCES: CARB, 2016; CARB, 2009

The federal CAA requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The SIP is a living document that is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The USEPA has responsibility to review all state SIPs to determine if they conform to the mandates of the federal CAA and will achieve air quality goals when implemented.

Federal

The USEPA is responsible for implementing programs established under the federal CAA, such as establishing and reviewing the NAAQS and judging the adequacy of State Implementation Plans (SIPs), but has delegated the authority to implement many of the federal programs to the states while retaining an oversight role to ensure that the programs continue to be implemented.

State

At the state level, CARB oversees California air quality policies and regulations. California had adopted its own air quality standards (CAAQS) as shown in Table 3.3-1. Most of the California ambient standards tend to be at least as protective as NAAQS and are often more stringent.

In 1988, California passed the California Clean Air Act (CCAA) (Health and Safety Code §39600 et seq.), which, like its federal counterpart, called for the designation of areas as attainment or nonattainment, but based on state ambient air quality standards rather than the federal standards. The CCAA requires each air district in which state air quality standards are exceeded to prepare a plan that documents reasonable progress towards attainment. If an air basin (or portion thereof) exceeds the CAAQS for a particular criteria air pollutant, it is considered to be nonattainment of that criteria air pollutant until the area can demonstrate compliance. As indicated in Table 3.3-2, Humboldt County is classified as nonattainment for the 24-hour and annual state PM₁₀ standards.

California's Diesel Risk Reduction Plan / Diesel Fuel Regulations

As part of California's Diesel Risk Reduction Plan, CARB has passed numerous regulations to reduce diesel emissions from vehicles and equipment that are already in use. Combining these retrofit regulations with new engine standards for diesel fueled vehicles and equipment, CARB intends to reduce DPM emissions by 85 percent from year 2000 levels by 2020. California Diesel Fuel Regulations (13 Cal. Code Regs. §§2281-2285; 17 Cal. Code Regs. §93114) provide standards for diesel motor vehicle fuel and non-vehicular diesel fuel.

CARB has also adopted a regulation for in-use off-road diesel vehicles that is designed to reduce emissions from diesel-powered construction and mining vehicles by imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. The regulation requires an operator of applicable off-road vehicles (self-propelled diesel-fueled vehicles 25 horsepower and up that were not designed to be driven on-road) to limit idling to no more than 5 minutes.

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction." The discussion below presents local policies and regulations for informational purposes only; CPUC does not consider these regulations "applicable" as that term is used in CEQA.

North Coast Unified Air Quality Management District

The Project area is located within the jurisdiction of the NCUAQMD. The NCUAQMD is the regional agency charged with preparing, adopting, and implementing emission control measures and standards for stationary sources of air pollution pursuant to delegated state and federal authority. Because the proposed Project would not involve construction of new stationary sources, there are no permitting regulations relevant to the Project.

Under the CCAA, the NCUAQMD is required to develop an air quality plan to achieve and/or maintain compliance with federal and state nonattainment criteria pollutants within the air district jurisdiction. As shown in Table 3.3-2, Humboldt County is designated as "attainment" or "unclassified" for all the federal and state ambient air quality standards with the exception of the state 24-hour PM₁₀ standard. NCUAQMD prepared a draft PM₁₀ Attainment Plan (NCUAQMD 1995) and plans to update it in the future. Currently, the NCUAQMD recommends caution if using this plan since it is not needed to achieve attainment status.

The NCUAQMD has not developed CEQA guidelines or formally adopted significance thresholds, but rather utilizes the Best Available Control Technology (BACT) emission rates for stationary sources as defined and listed in the NCUAQMD Rule and Regulations, Rule 110 - New Source Review (NSR) And Prevention of Significant Deterioration (PSD), Section 5.1 - BACT.

Humboldt County General Plan

The Humboldt County General Plan includes several standards for improving air quality in the region. Standards relevant to this Project include:

AQ-S1: Construction and Grading Dust Control. Ground disturbing construction and grading shall employ fugitive dust control strategies to prevent visible emissions from exceeding NCUAQMD regulations and prevent public nuisance.

3.3.3 Applicant Proposed Measures

The following measure pertaining to air quality has been proposed by PG&E and would be implemented as part of the proposed Project. PG&E has also identified APM GHG-1 to minimize greenhouse gas emissions, which would also reduce criteria pollutant emissions (see Section 3.8, Greenhouse Gas Emissions).

APM AQ-1: Minimize Fugitive Dust. PG&E will minimize fugitive dust during construction by implementing the following measures:

- Reduce the amount of the disturbed area where possible.
- Use water trucks or sprinkler systems in dry weather in sufficient quantity to prevent airborne dust from leaving the site.
- Implement dust control measures as soon as possible following completion of any soil-disturbing activities.
- Establish a policy that vehicle speed for all construction vehicles is not to exceed 15 miles per hour on any unpaved surface.

- Water all active construction areas (including storage piles) as needed to suppress dust. Base the frequency on the type of operation and the soil and wind exposure.
- Cover or maintain at least 2 feet of free board space on haul trucks transporting soil, sand, or other loose material on the site.
- Sweep adjacent public roads if visible soil material is carried out from a work site.

3.3.4 Environmental Impacts

Approach to Analysis

Significance Criteria

The NCUAQMD has not adopted significance thresholds for construction activities. Although BACT emission rates for stationary sources are defined and listed in the NCUAQMD Rule 110 - New Source Review (NSR) And Prevention of Significant Deterioration (PSD), Section 5.1 – BACT, the proposed Project does not include stationary sources of emissions and, thus, the BACT rule would not apply. In the absence of applicable NCUAQMD significance thresholds, the CPUC has elected to apply the significance thresholds developed by the Bay Area Air Quality Management District (BAAQMD) to gauge the significance of air pollutants that would be generated by the proposed Project; however, the CPUC acknowledges that use of BAAQMD thresholds for criteria pollutants and ozone precursors for projects in Humboldt County is conservative since only PM₁₀ is nonattainment in the County. Refer to **Table 3.3-4** for the BAAQMD construction-related and operational-related significance thresholds.

**TABLE 3.3-4
SIGNIFICANCE THRESHOLDS FOR PROPOSED PROJECT**

Pollutant	Construction-Related	Operational-Related	
	Average Daily Emissions (lb/day)	Average Daily Emissions (lb/day)	Maximum Annual Emissions (tpy)
ROG	54	54	10
NOX	54	54	10
PM ₁₀	82*	82	15
PM _{2.5}	54*	54	10
Fugitive Dust	Best Management Practices (BMP)	None	
Risk and Hazards	Compliance with Qualified Community Risk Reduction Plan OR Increased cancer risk of >10.0 in a million Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute) Ambient PM2.5 increase: > 0.3 µg/m³ annual average Zone of Influence: 1,000-foot radius from property line of source or receptor		

NOTE:

* PM₁₀ and PM_{2.5} construction thresholds are for exhaust only.

SOURCE: BAAQMD, 2017

Methodology and Assumptions

Project-related regional air quality impacts would fall into two categories: short-term impacts due to construction, and long-term impacts due to Project operation. First, during Project construction (short-term), the Project would affect local particulate concentrations primarily due to fugitive dust sources and diesel exhaust. The Project would result in replacing the existing conductor and poles associated with the approximately 7.8-mile Humboldt Bay-Humboldt #1 60 kV Power Line. The operation and maintenance activities required for the reconductored power line would not change from those currently required for the existing power line; thus, no operation-related (long-term) impacts would occur. Therefore, the impact analysis is focused on construction activities that are required to install the new conductor and replace existing structures, and establish required access and work areas.

PG&E provided construction-related air pollutant emissions calculations and estimates for the construction activities that would be associated with the proposed Project. Short-term construction emissions of PM₁₀ and PM_{2.5} were evaluated. Because O₃ is formed through chemical reactions in the atmosphere, the O₃ precursors NO_x and ROG were also evaluated. Construction emissions (excluding those from helicopters), emissions from soil disturbance, and emissions from vehicle travel on paved and unpaved roads were estimated using California Emissions Estimator Model Version 2016.3.2 (CalEEMod). Some construction equipment is expected to be used less than five days per week; however, to be conservative and maintain flexibility in construction operations, all equipment was modeled as operating five or six days per week. Helicopter emissions were estimated manually using emissions factors obtained from the Swiss Federal Office of Civil Aviation (FOCA) (FOCA, 2015).

PG&E's emission calculations were independently reviewed by the CPUC's consultant, Environmental Science Associates (ESA), and were found to be technically adequate with the following exception. PG&E's emissions estimates included two calculation methodologies: one for off- and on-road vehicles and one for helicopter activity. ESA found the off and on-road vehicle emissions to be adequate but found some minor errors within the helicopter calculations. ESA revised the helicopter emissions by correcting MS Excel cell reference mistakes, revising emission factors to match the FOCA downloadable table, and updating the mass balance calculation for sulfur combustion.

ESA also prepared a health risk assessment (HRA) to evaluate the risks to nearby receptors from exposure to TACs associated with the Project (ESA, 2019). The HRA focuses on construction emissions; the primary TAC of concern is considered DPM, which results from diesel-fueled engine combustion. Because of the uncertainty in assessing cancer risk from very short-term exposures, the Office of Environmental Health Hazard Assessment (OEHHA) guidelines do not recommend assessing cancer risk for projects lasting less than two months (OEHHA, 2015). Due to the linear nature of the Project, construction activities would be spread across the approximately 7.8-mile-long alignment, and would last between a few days and a few weeks at each construction site. Health risk impacts for construction work occurring linearly is not expected to impact any one sensitive receptor for a duration of more than two months; therefore, the HRA did not evaluate the health risks associated with reconductoring along the power line alignment.

Construction work that could occur at staging areas may last up to 26 weeks in duration. Because there are a numerous potential staging areas with varying locations and sizes, a conservative screening model was used to address the potential health risk associated with these sources. The US EPA screening model AERSCREEN (v16216) was used to estimate DPM concentrations at distances of 1 meter to 5,000 meters from the staging area. Worst case DPM concentrations were applied to the OEHHA health risk calculations and methodologies to determine the potential exposure of sensitive receptors nearby a prospective staging area.

Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan: *NO IMPACT.*

The project is located within the NCAB, which is regulated by NCUAQMD. The NCAB is currently designated as a nonattainment area for state PM₁₀ 24-hour and annual standards. NCUAQMD prepared a draft PM₁₀ Attainment Plan and plans to update it in the future (NCUAQMD, 1995). Currently, the NCUAQMD recommends caution if using this plan since it is not needed to achieve attainment status. Since the plan is draft and NCUAQMD recommends caution in its use, the CPUC does not consider it applicable to the proposed Project.

The Humboldt County General Plan has six standards in the air quality element of which only AQ-S1, *Construction and Grading Dust Control*, applies directly to the proposed Project. AQ-S1 requires implementation of fugitive dust control strategies to prevent visible emissions from exceeding NCUAQMD regulations and to prevent public nuisance. APM AQ-1 would be consistent with the intent of General Plan standard AQ-S1 by requiring PG&E and/or it construction contractors to implement fugitive dust control measures during construction. The proposed Project would not conflict or obstruct implementation of an applicable air plan. No impact would occur.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard: *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.*

The average daily emissions for a range of pollutants for off- and on-road vehicle and helicopter use were calculated using CalEEMod and FOCA, respectively. Survey and preparation of the access roads would occur prior to structure replacement activities it is assumed that lattice steel tower and tubular steel pole installation would not occur concurrently, but all other pole replacement activities would occur concurrently with each of these activities. Emission rates were estimated without factoring in reductions that would be associated with APM AQ-1, which would minimize fugitive dust, or APM GHG-1, which would minimize combustion emissions.

The average daily emission rates generated, including the updated helicopter emissions, are presented in **Table 3.3-5**. Detailed emissions calculations are provided in **Appendix C**.

**TABLE 3.3-5
PROJECT CONSTRUCTION EMISSIONS**

Activity	Average ¹ Emission Rate (pounds per day)					
	ROG	NO _x	PM ₁₀ Exhaust	PM ₁₀ Fugitive ²	PM _{2.5} Exhaust	PM _{2.5} Fugitive ²
Ground Equipment and Vehicles	5.48	37.50	1.69	2.10	1.60	0.61
Helicopter Operations	3.37	11.18	0.31	3.30	0.28	0.33
Total	8.85	48.68	2.01	5.40	1.88	0.94
BAAQMD Threshold Applied ³	54	54	82	BMP	54	BMP
Threshold Exceeded?	No	No	No	No	No	No

NOTES:

¹ The average emission rate was calculated assuming a 180-day construction period.

² Fugitive emissions presented are unmitigated and would be reduced with implementation of best management practices (BMP).

³ In the absence of NCUAQMD thresholds, BAAQMD thresholds were applied for CEQA review purposes.

SOURCES: PG&E, 2019; ESA, 2019

The proposed Project's contribution to a cumulative air quality impact would be considerable if the incremental increase in emissions from the proposed Project would exceed significance thresholds. As shown in Table 3.3-5, construction of the Project would lead to a temporary increase in criteria pollutants. The temporary increases would fall below the significance levels; however, to reduce fugitive dust emissions, PG&E would implement APM AQ-1, which includes applying water to exposed areas and reducing vehicle speeds on unpaved areas. BAAQMD does not have a specific significance threshold for fugitive dust but rather recommends BMPs for dust control. In addition to the dust control measure provided in APM AQ-1, **Mitigation Measure AQ-1** supplements this APM by requiring haul trucks to be covered, implementing a proactive paving schedule, and posting a public sign for dust complaints. To further reduce exhaust emissions, PG&E would implement APM GHG-1, which includes limiting equipment idling time. Even without considering implementation of these APMs, all criteria air pollutant and ozone precursor emissions would be below BAAQMD significance thresholds.

Mitigation Measure AQ-1: Supplemental Best Management Practices. The following measures shall be implemented during the construction phase by PG&E and/or its construction contractors:

- All exposed surfaces that could cause dust (e.g., undeveloped parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered one to two times per day during dry conditions.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Construction workers will be trained on this requirement during tailboard construction trainings.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at PG&E regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Significance after Mitigation: Less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations: *LESS THAN SIGNIFICANT IMPACT.*

Sensitive receptors located within 500 feet of construction work areas include residences, recreational facilities, and schools. Approximately 2.4 miles of the Project alignment is within residential areas, where the existing line is along sidewalks or within residential backyards. Four schools are located within 500 feet of construction work areas; the closest, Grant Elementary School, is located across the street (approximately 50 feet) from the Project alignment. Given their proximity to the proposed Project, sensitive receptors in the Project vicinity could be exposed to temporary increases in criteria air pollutants due to fugitive dust and construction equipment use in the area.

Residences located near four of the helicopter landing zones may experience increased dust during helicopter take-off and landing. However, helicopter activities would be geographically and temporally limited over the six months of construction. Helicopter landings would generate dust; however, landings would be brief and dust effects would be localized. The implementation of APM AQ-1 would control fugitive dust at helicopter landing zones through watering or use of a soil stabilizer. As a result, impacts to the residences due to helicopter generated fugitive dust would be less than significant.

The linear construction would produce emissions lasting between a few days and a few weeks at each construction site. Nearby sensitive receptors would be exposed to less than two months of construction activities, which is considered negligible under OEHHA guidance. However, staging areas may require construction work to occur at locations in the vicinity of sensitive receptors for durations of up to 26 weeks. ESA completed a subsequent health risk assessment for the staging areas. Because of the potential staging areas' varying locations, a screening model was applied to evaluate DPM deposition at a range of distances from the source. The exact size of the potential staging areas are estimated to range from 0.5 acre to 1.5 acres. Three AERSCREEN runs were completed with area source sizes of 0.5-acre lot, 1-acre lot, and a 1.5-acre lot. The modeled resulted in a worst case scenario occurring for a 0.5-acre lot at 25 meters (82 feet) from the source.

The modeled worst case DPM concentration was used to calculate the residential cancer risk for a 26-month exposure starting at 3rd trimester (OEHHA, 2015). Detailed calculations are shown in Appendix C. As shown in Table 3.3-6, construction of the Project would lead to a temporary residential exposure to TACs, but would not exceed the significance criteria. The results presented in Table 3.3-6 do not consider the DPM or PM_{2.5} emissions reductions that would occur with implementation of APM GHG-1.

**TABLE 3.3-6
PROJECT CONSTRUCTION RISK**

Exposure Scenario	Cancer Risk ¹ (per million)	Hazard Index	Annual PM _{2.5} (ug/m ³)
Resident ~25 m from Staging Area	3.9	0.01	0.07
BAAQMD Significance Threshold Applied ²	10	1.0	0.3
Threshold Exceeded?	No	No	No

NOTE:

¹ Cancer risk represents the incremental value.

² In the absence of NCUAQMD thresholds, BAAQMD thresholds were applied for CEQA review purposes.

The proposed Project would not expose sensitive receptors to substantial pollutant concentrations. The impact would be less than significant.

Mitigation: None required.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people: *LESS THAN SIGNIFICANT IMPACT.*

Typical odor nuisances include H₂S, ammonia, chlorine, and other sulfide-related emissions. No significant sources of these pollutants would exist during construction. Diesel engine emissions are also a potential source of Project-related odor. As previously described, residences are located adjacent to construction work areas. However, because construction emissions would be dispersed throughout the Project area and would be short term, lasting a few days at each pole, a few weeks at larger structures, and up to 26 weeks at staging areas, impacts due to odor would be less than significant.

Mitigation: None required.

3.3.5 References

Bay Area Air Quality Management District (BAAQMD), 2017. *California Environmental Quality Act Air Quality Guidelines*. May 2017. Available at: http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

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3.4 Biological Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
4. BIOLOGICAL RESOURCES — Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.4.1 Environmental Setting

Regional Setting

The Project is proposed in unincorporated Humboldt County and the City of Eureka. Plant communities in the Project area, include redwood forest, annual and perennial grasslands, montane riparian forest, freshwater emergent wetlands, saline emergent wetlands, and coastal scrub. The Project area¹ includes numerous riverine features, namely Buhne Slough, Elk River, Martin Slough, Ryan Slough, Ryan Creek, and associated unnamed tributaries. Saline and freshwater wetlands are the dominant habitat type in the first mile of the Project area (immediately west of the Humboldt Bay Substation), after which it changes to annual/perennial grasslands and riparian habitat associated with the Elk River floodplain. The Project area then passes through urban Eureka and small tracts of second- and third-growth redwood forest fragments at the southeastern edge of the City, until the terminus at Humboldt Substation. The

¹ The term "Project area" as used in this section describes a 300-foot wide study corridor extending 150 feet on either side of the project alignment, project access routes (including unimproved access routes extending 25 feet along either side from the road center line, where located outside of the 300-foot corridor), and any construction work areas, staging areas, and helicopter landing zones located beyond the 300-foot corridor or the 25-foot buffer.

climate is typically mild, with an annual average of 46 inches of precipitation, and frequent coastal fog in the summer. The City is situated in the Northern Coast Range, with elevations ranging from approximately 5 to 200 feet above sea level (Stillwater Sciences, 2019a).

Landcover, Vegetation, and Wildlife Habitats

Approximately 36 percent of the Project area is urban area. Outside of these developed areas, dominant vegetation types in order of geographic extent include redwood forest in the central and eastern sections of the Project area; annual/perennial grassland in the central area and to the east; montane riparian scattered throughout; and freshwater emergent wetlands, primarily concentrated in the western section. Coastal scrub is scattered throughout the Project area, and saline emergent wetlands are dominant within the western portion. Open water is the designation for visible surface water (e.g., Buhne Slough, Martin Slough, Ryan Slough, and various ditches). A small amount of closed-cone pine-cypress (a stand of trees) was mapped at the eastern terminus of the Project area. Land cover/vegetation types are listed in **Table 3.4-1** and described below.

**TABLE 3.4-1
SUMMARY OF LAND COVER TYPES IN THE PROJECT AREA**

CWHR Habitat Type	Approximate Acres
Urban	108.0
Redwood	82.7
Annual/ Perennial Grassland	77.1
Freshwater Emergent Wetland	24.9
Montane Riparian	24.6
Coastal Scrub	9.1
Saline Emergent Wetland	3.4
NA (Open Water ¹)	2.8
Closed-Cone Pine-Cypress	0.3
Total	332.9

NOTE: All acreages are approximate and may not sum exactly due to rounding.

¹ The open water habitat type does not represent all potential USACE jurisdictional waters, as some jurisdictional features were mapped as vegetation based on aerial imagery. The wetland delineation contains a comprehensive map of USACE jurisdictional waters (Stillwater Sciences, 2019b).

Redwood Forest

Redwood forest covers approximately 30 percent of the Project area, with redwoods (*Sequoia sempervirens*) and/or Sitka spruce (*Picea sitchensis*) forming a continuous overstory canopy with other interspersed conifers (e.g., grand fir [*Abies grandis*] and Douglas-fir [*Pseudotsuga menziesii*]). These stands often have an open and sparse mid-story; some sections of the Project area have a low to moderate canopy cover of tanoak (*Lithocarpus densiflora*), Oregon ash (*Fraxinus latifolia*), and other hardwoods. The understory plant composition ranges from areas with well-established cover of native plant species to areas that are disturbed and dominated by invasive plants, often due to proximity to development.

Redwood forest in the Project area was previously harvested for timber and is likely second- or third-growth forest. It is located throughout the Project area from just north of Martin Slough in Pine Hills (an unincorporated community located 2.5 miles south of downtown Eureka) to the Humboldt Substation. Redwood forest in the northern portion of the Project area is in timberlands managed by Green Diamond Resource Company, and in Humboldt County's McKay Community Forest managed by the Humboldt County Public Works Department. Collectively, these areas make up the McKay Tract.

Annual/Perennial Grassland

Annual/perennial grassland makes up approximately 20 percent of the vegetation in the Project area. Most grassland occurs in converted wetlands in or adjacent to low-lying floodplains. These seasonally mesic grasslands are comprised of non-native and native hydrophytic grasses including perennial rye grass (*Festuca perennis*), northern barley (*Hordeum brachyantherum* subsp. *brachyantherum*), reed canarygrass (*Phalaris arundinacea*), common velvet grass (*Holcus lanatus*), water foxtail (*Alopecurus geniculatus*), red fescue (*Festuca rubra*), bent grasses (*Agrostis* spp.), and manna grasses (*Glyceria* spp.); as well as hydrophytic forbs such as pennyroyal (*Mentha pulegium*), Pacific silverweed (*Potentilla anserina* subsp. *pacifica* [syn. *Argentina egedii*]), bird's-foot trefoil (*Lotus corniculatus*), bristly ox-tongue (*Helminthotheca echioides*), and various buttercups (*Ranunculus* spp.). Upland grasslands are typically dominated by non-native species such as sweet vernal grass (*Anthoxanthum odoratum*), cultivated oat (*Avena sativa*), and various bromes (*Bromus* spp.). Herbaceous plant associates in these upland areas are also predominantly non-native and include oxeye daisy (*Leucanthemum vulgare*), Queen Anne's lace (*Daucus carota*), English plantain (*Plantago lanceolata*), rough cat's ear (*Hypochaeris radicata*), cutleaf geranium (*Geranium dissectum*), English daisy (*Bellis perennis*), various clovers (*Trifolium* spp.), and common selfheal (*Prunella vulgaris*).

Montane Riparian

Montane riparian vegetation occurs across less than approximately 10 percent of the Project area along waterways with intermittent to perennial flow and includes both tree and shrub-dominated areas. Tree overstory is generally dominated by red alder (*Alnus rubra*) and includes stands of big-leaf maple (*Acer macrophyllum*), arroyo willow (*Salix lasiolepis*), and Pacific willow (*Salix lasiandra*). Plant associates include Oregon ash, Himalayan blackberry (*Rubus armeniacus*), California blackberry (*Rubus ursinus*), small-fruited bulrush (*Scirpus microcarpus*), yellow skunk cabbage (*Lysichiton americanus*), common horsetail (*Equisetum arvense*), and California wild grape (*Vitis californica*). Dense willow thickets make up most of the shrub-dominated montane riparian habitats and include shrub forms of Sitka willow (*Salix sitchensis*), arroyo willow, and coastal willow (*S. hookeriana*), along with both Himalayan and California blackberries.

Freshwater Emergent Wetland

Freshwater emergent wetland occurs across less than approximately 10 percent of the Project area where it is characterized by erect, rooted, herbaceous hydrophytes in semi-permanent and seasonally flooded palustrine wetlands. Plant associates include pale spikerush (*Eleocharis macrostachya*), rushes (*Juncus* spp.), parrot feather watermilfoil (*Myriophyllum aquaticum*), Pacific silverweed, American speedwell (*Veronica americana*), common horsetail, dock (*Rumex*

spp.), sedges (*Carex* spp.), small-fruited bulrush, European bur-reed (*Sparganium emersum*), and broadleaf cattail (*Typha latifolia*).

Coastal Scrub

Coastal scrub generally occurs on coastal bluffs and dry exposed slopes on the northern California coast. Coastal scrub is patchily distributed across less than approximately 3 percent of the Project area on abandoned railroad tracks, levees, southwest-facing steep slopes, and uplands adjacent to the saline emergent wetland habitat type. Common native shrub species documented include coyote brush (*Baccharis pilularis*), cascara (*Frangula purshiana*), wax myrtle (*Morella californica*), riverbank lupine (*Lupinus rivularis*), Nootka rose (*Rosa nutkana* subsp. *nutkana*), twinberry (*Lonicera involucrata*), and sword fern (*Polystichum munitum*), as well as the invasive French broom (*Genista monspessulana*) and Himalayan blackberry. Associated native herbaceous plant species include sea-watch (*Angelica lucida*), California figwort (*Scrophularia californica*), Queen Anne's lace, and fireweed (*Chamerion angustifolium* subsp. *circumvagum*); non-native associates include pampas grass (*Cortaderia jubata*), cultivated radish (*Raphanus sativus*), and teasel (*Dipsacus fullonum*).

Saline Emergent Wetlands

Saline emergent wetlands primarily occur in the far western portion of the Project area, and make up less than 2 percent of the overall landcover. This landcover type is dominated by Pacific pickleweed (*Salicornia pacifica* [syn. *Sarcocornia pacifica*]), along with other perennial halophytic plant species. Plant associates include salt grass (*Distichlis spicata*), various rushes, fat-hen (*Atriplex prostrata*), and slough sedge (*Carex obnupta*). Additional herbaceous species include seaside arrow-grass (*Triglochin maritima*), brass-buttons (*Cotula coronopifolia*), and tufted hair grass (*Deschampsia cespitosa*). Coyote brush and wax myrtle shrubs are scattered throughout. In addition, the highly invasive dense-flowered cordgrass (*Spartina densiflora*) was documented within this habitat type.

Closed-cone Pine-cypress

The closed-cone pine-cypress habitat type is associated with one small 0.3-acre stand of Monterey cypress (*Hesperocyparis macrocarpa*) in the Project area (less than 1 percent of the Project area). Outside of the natural groves that exist only on the Monterey Peninsula, Monterey cypress is considered invasive along the California coast; naturalized populations can be found from Humboldt County south to Santa Barbara (CNPS, 2019). This stand occurs adjacent to the developed area in the north end of the Project area near Humboldt Substation. The understory is limited to low cover of herbaceous annuals, due to dense leaf litter that limits establishment of perennial plant species.

Open Water

The open water area largely consists of prominent and minor waterways that cross the Project alignment. These include Buhne Slough, Elk River, Martin Slough, and Ryan Slough. Unvegetated tributaries and drainage ditches may also be mapped as open water if they support perennial surface flow.

Buhne Slough

The Project alignment crosses Buhne Slough at the far western end of the Project area next to Humboldt Bay Substation. Buhne Slough is a muted tidal channel that flows through a non-operational tide gate at the western end of the Project area. It also receives rainfall runoff from the hills to the east. A portion of Buhne Slough was dredged to create the community of King Salmon's Fisherman's Channel and the Humboldt Bay Power Plant cooling water intake canal. The remainder of Buhne Slough was abandoned when the intake canal was dredged. The tide gate west of King Salmon Avenue was created to provide a connection to Humboldt Bay and maintain runoff drainage.

The Buhne Slough channel west of Highway 101 is approximately 13–16 feet wide and relatively shallow, with soft mud/clay substrate and an average bank height of approximately one foot. Salinity measured in October 2017 was similar to sea water, reflecting the direct connection to Humboldt Bay during incoming tidal conditions; however, water quality conditions could shift substantially with seasonal fluctuations in hydrological conditions (e.g., heavy rainfall runoff in winter months). Buhne Slough east of Highway 101 is connected via an open box culvert under Highway 101. The slough in this area flows through constructed ditches with soft mud/clay bed and bank substrates; the main channels to the west and south are approximately 6–13 feet wide.

Elk River

The Project alignment crosses the Elk River approximately 1.2 miles eastward along the alignment from the Humboldt Bay Substation. Elk River flows westward along the west side of the northern California Coast Range into Humboldt Bay south of Eureka. The Elk River watershed encompasses approximately 33,700 acres. The watershed contains two major forks, the North and South forks. The Elk River meanders across a well-defined floodplain in the lower half of the basin. Tributaries to the Elk River are deeply incised into the landscape with low-gradient mainstem channels that typically transition sharply to moderately steep headwater tributaries. Rural land use along the lower reaches of the mainstem and North and South forks is primarily pasture with adjacent residential areas. The major land use in the watershed is forest management primarily under the ownership of Humboldt Redwood Company and the Headwaters Forest, which is managed by the U. S. Bureau of Land Management. The small portion of Elk River within the Project area is intertidal and has been leveed and diked to create and maintain valley bottomlands suitable for farming and ranching and, historically, to support logging activities. As a result, much of the pre-existing wetlands and coastal marsh habitat has been converted to farmlands.

Martin Slough

The Project alignment crosses Martin Slough at three locations along the alignment. Martin Slough originates in upland areas in and adjacent to the City of Eureka and flows into Swain Slough, the lowest tributary to Elk River. In the Martin Slough watershed, land use is mixed and includes the following: residential, agricultural, timberlands, and municipal infrastructure. Martin Slough has a watershed area of approximately 5.4 square miles, and a natural channel length of over 10 miles with approximately 7.5 miles of potential salmonid fish habitat. However, existing tide gates partially block upstream salmonid migration. The lower portion of the watershed flows through low-gradient bottomland containing a golf course and pastureland. Many of the stream

channels flow from gulches that contain mature second-growth redwood forests. The upper portions of the watershed are either in urban settings or are recently harvested timber lands slated for future residential areas. Martin Slough is a transition area between freshwater and tidal marsh and consists of a complex network of channels with diverse habitat types and vegetation that support a wide variety of fish and wildlife.

Ryan Slough

The Project alignment crosses Ryan Slough east of the Redwood Acres Fairgrounds in northeast Eureka. Ryan Slough drains Ryan Creek and is a tributary to Freshwater Slough, prior to Freshwater Slough entering Humboldt Bay. The portion of Ryan Slough within the Project area is tidally influenced, flows through grazing land, and is bordered by a thin strip of willow vegetation in the upper reach. The slough channel banks and bottom are primarily mud and clay intermixed with smaller amounts of gravel.

Wetlands and Aquatic Resources

The Project area contains approximately 4.1 acres of potentially jurisdictional waters of the U.S. and approximately 90.0 acres of potentially jurisdictional adjacent wetlands. Of these, approximately 70.4 acres are within the coastal zone as described below (Stillwater Sciences, 2019b).

California Coastal Act Wetlands

Within in the coastal zone, the Project area contains approximately 102.0 acres of wetlands. Of these, approximately 31.6 acres are one- or two-parameter wetlands (California Coastal Act [CCA] wetlands), and approximately 70.4 acres are three-parameter wetlands (federally-jurisdictional wetlands). Locations of potential California Coastal Commission (CCC)-jurisdictional waters and wetlands are provided in the Biological Resources Technical Report (BRTR) (Stillwater Sciences, 2019a).

Sensitive Natural Communities

Botanical field surveys in 2016 documented 11 special-status natural communities in the Project area: redwood forest, red fescue grassland, bigleaf maple forest, coastal dune and Sitka willow thickets, shining willow groves, Pacific silverweed marshes, slough sedge swards, small-fruited bulrush marsh, salt rush swales, coastal brambles, and pickleweed mats. Sitka spruce forest was additionally documented, but none of the identified stands are considered sensitive. These communities are mapped in the BRTR and discussed below. (Stillwater Sciences, 2019a).

Sitka Spruce Forest

Sitka spruce forests occur in a narrow band of coastal forests from Sonoma County north to the Oregon border, often adjacent to redwood forests (CNPS, 2019). Sitka spruce trees dominate; plant associates may include grand fir, redwood, and western hemlock (*Tsuga heterophylla*). In the Project area, Sitka spruce forest is located on steep slopes, often adjacent to red alder forest or in urban locations from Humboldt Hill north to Cutten. None of the stands in the Project area are considered old-growth, which are the type of stands considered sensitive by the California Department of Fish and Wildlife (CDFW) (CNPS, 2019).

Redwood Forest

Redwood forest occurs in moist coastal forests from San Luis Obispo County north to the Oregon border (CNPS, 2019). Redwood trees are dominant or co-dominant with grand fir and Douglas-fir; additional plant associates may include big-leaf maple, red alder, tanoak (*Notholithocarpus densiflorus*), Sitka spruce, western hemlock, and California bay (*Umbellularia californica*). Redwood forest is located from just north of Martin Slough in Pine Hills to the Humboldt Substation.

Red Fescue Grassland

Red fescue grassland occurs most often in coastal prairies, from Marin County north to the Oregon border (CNPS, 2019). Red fescue is dominant or co-dominant; plant associates may include common yarrow (*Achillea millefolium*), California brome (*Bromus carinatus*), and blue wildrye (*Elymus glaucus*), as well as emergent trees or shrubs at low cover. In the Project area, red fescue grassland is located adjacent to freshwater emergent wetlands northwest of the Elk River, along Martin Slough, and along Ryan Slough.

Bigleaf Maple Forest

Bigleaf maple forest occurs on lower slopes, terraces, and raised stream benches in the central and northern coast ranges in California, Sierra Nevada foothills, Klamath Mountains, and southern Cascades (CNPS, 2019). Bigleaf maple is dominant or co-dominant with red alder, incense cedar (*Calocedrus decurrens*), Sitka spruce, Douglas-fir, redwood, and California bay. In the Project area, bigleaf maple forest is located in montane riparian forest adjacent to redwood forest near Ryan Slough.

Coastal Dune and Sitka Willow Thickets

Coastal dune and Sitka willow thickets occur in the moist, northwestern coastal portions of California, from Marin County north to the Oregon border, often near the ocean in seasonally flooded areas (CNPS, 2019). Coastal willow or Sitka willow are dominant or co-dominant; plant associates may include coyote brush, wax myrtle, or blackberries (*Rubus* spp.). Coastal dune and Sitka willow thickets are located adjacent to both freshwater and saline emergent wetlands as well as redwood forest.

Shining Willow Groves

Shining willow groves occur in moist coastal areas, flooded valleys, adjacent to low-gradient waterways, or in saturated meadows (CNPS, 2019). Shining willow is dominant or co-dominant; plant associates include bigleaf maple, red elderberry (*Sambucus racemosa*), and other willow species. Shining willow groves are located adjacent to both freshwater and saline emergent wetlands as well as redwood forest.

Pacific Silverweed Marshes

Pacific silverweed marshes occur in coastal areas of California, generally in brackish marshes or salt marshes with intermediate levels of salinity (CNPS, 2019). Pacific silverweed is either dominant or co-dominant; plant associates include creeping bent grass (*Agrostis stolonifera*), fathen, slough sedge, brass-buttons, saltgrass, pale spikerush, common velvet grass, bird's-foot

trefoil, water parsley (*Oenanthe sarmentosa*), rabbitfoot grass (*Polypogon monspeliensis*), and arrow-grasses (*Triglochin* spp.). Pacific silverweed marshes are located on low elevation floodplains adjacent to the Elk River, a Martin Slough tributary, and Ryan Slough, where they are often surrounded by annual/perennial grassland.

Slough Sedge Swards

Slough sedge swards occur in a variety of wetland types from the Central California Coast north to the Oregon border (CNPS, 2019). Slough sedge is dominant or co-dominant; plant associates include Pacific silverweed, southwestern lady fern, pale spikerush, common velvet grass, San Francisco rush (*Juncus lescurii*), spreading rush (*Juncus patens*), yellow skunk cabbage, and Pacific aster (*Symphyotrichum chilense*). Slough sedge swards occur within freshwater emergent wetlands near the Elk River, Swain Slough, and Ryan Slough.

Small-fruited Bulrush Marsh

Small-fruited bulrush marshes occur in northern coastal areas of California and throughout the Sierra Nevada, generally in seasonal marshes or adjacent to streams or drainage ditches (CNPS, 2019). Small-fruited bulrush is dominant or co-dominant; plant associates include creeping bent grass, Pacific silverweed, sedges, common velvet grass, soft rush (*Juncus effusus*), and water parsley. Small-fruited bulrush marshes are located on low elevation floodplains east of Buhne Slough, west of Swain Slough, and along Martin Slough; these marshes are typically surrounded by montane riparian, redwood forest, freshwater emergent wetland, or annual/perennial grassland.

Salt Rush Swales

Salt rush swales occur in coastal areas of California, generally in brackish seasonally wet marshes, at the upper elevation of salt marshes, or at intermediate elevations in diked salt marshes (CNPS, 2019). San Francisco rush dominates; plant associates include creeping bent grass, Pacific silverweed, pale spikerush, and common velvet grass. Salt rush swales are located in the western portion of the Project area, on both sides of Highway 101 and west of Elk River, adjacent to both saline and freshwater emergent wetlands.

Coastal Brambles

Coastal brambles occur in generally mesic coastal areas from Marin County north to the Oregon border (CNPS, 2019). California blackberry is generally dominant; plant associates may include thimbleberry (*Rubus parviflorus*), salmon berry (*Rubus spectabilis*), coyote brush, salal (*Gaultheria shallon*), common cowparsnip (*Heracleum maximum*), twinberry, coastal manroot (*Marah oregana*), wax myrtle, red elderberry, and California huckleberry (*Vaccinium ovatum*). Coastal brambles occur sporadically in saline emergent wetlands.

Pickleweed Mats

Pickleweed mats occur in salt marshes along the Pacific coastline at estuaries and river mouths (CNPS, 2019). Pickleweed generally dominates; plant associates may include fat-hen, brass-buttons, salt grass, coastal gumweed (*Grindelia stricta*), and seaside arrow-grass. Pickleweed mats occur in the western end of the Project area along Buhne Slough.

Special-Status Species

This section describes special-status species that are likely to occur, have potential to occur, or are seasonally present in the Project area. Plant species recorded in CNDDDB within three miles of the Project area are shown in **Figure 3.4-1** and wildlife species in **Figure 3.4-2**.

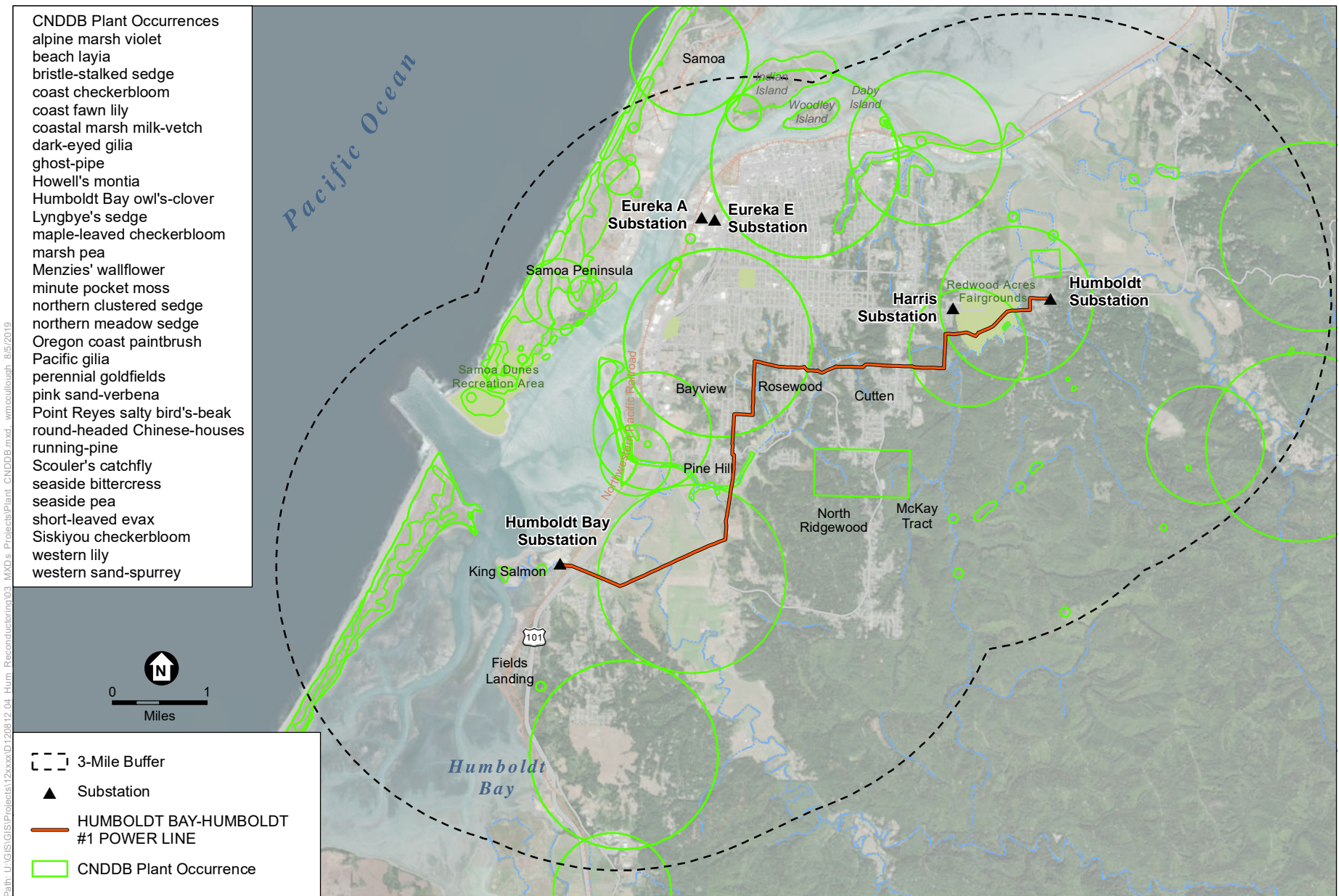
Special-status Plants

Table BIO-1 in **Appendix D** summarizes those special-status plant species considered to have a moderate to high potential to occur in the Project area based on known range and habitat associations of the species. Of these, one species—Lyngbye's sedge (*Carex lyngbyei*)—has been previously documented within the Project area (Stillwater Sciences, 2019a). There are three records of historical occurrence of Lyngbye's sedge in the Project area. Lyngbye's sedge was also identified in the Project area during botanical surveys conducted in 2016. No other special-status plant species, including those with previously documented occurrences, were found in the Project area during the 2016 surveys.

Lyngbye's Sedge

Lyngbye's sedge is a perennial rhizomatous herb in the Cyperaceae family that has a California Rare Plant Rank (CRPR) listing of 2B.2 (plants rare, threatened, or endangered in California, but more common elsewhere; moderately threatened in California). It is limited to the North and Central Coast from 0 to 33 feet in elevation (Baldwin *et al.*, 2012). Lyngbye's sedge occurs in brackish and freshwater marshes and swamps and blooms from April through August. Threats to species persistence include grazing, non-native plants, and habitat disturbance (CNPS, 2019). Lyngbye's sedge has been previously recorded in the Project area (Stillwater Sciences, 2019a).

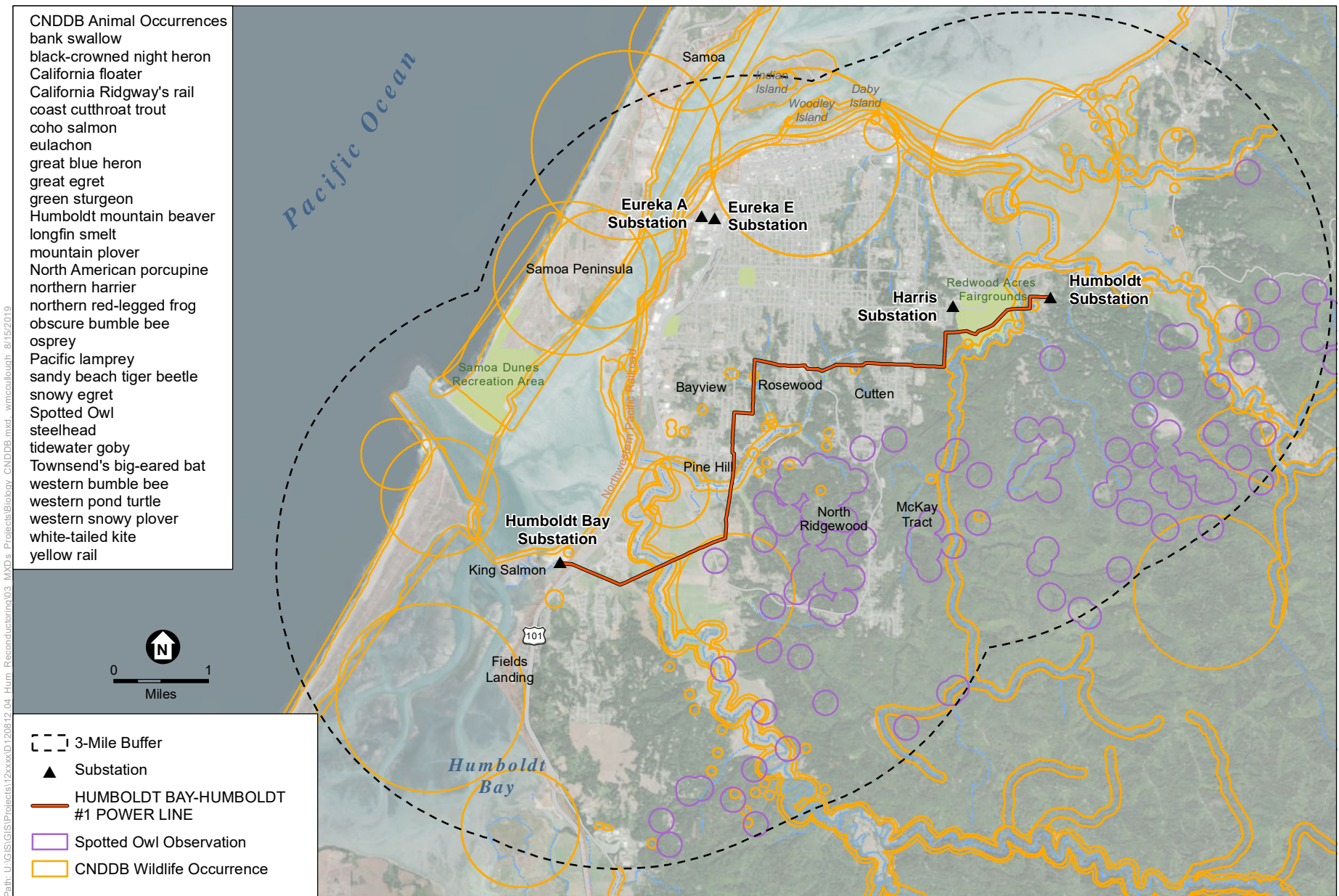
Surveys of the Project area conducted in 2016 documented Lyngbye's sedge along the banks of Martin Slough, Elk River, and Ryan Slough, which are all tidally influenced waterways. At all locations, this sedge formed dense monotypic stands; nearby plant associates include bird's-foot trefoil, common velvet grass, perennial rye grass, white clover (*Trifolium repens*), Pacific silverweed, California blackberry, salt grass, small-fruited bulrush, three-ribbed arrow-grass (*Triglochin striata*), and barleys (*Hordeum* spp.). All occurrences were previously documented (Stillwater Sciences, 2019a). The Martin Slough occurrence was the largest population observed in the Project area and was heavily grazed by cattle (Stillwater Sciences, 2019a). The Elk River occurrence has a population of approximately 700 plants. The Ryan Slough occurrence is located along the lower bank and extended within the active channel; water marks indicated that some individuals were partially or fully submerged during high tides.



SOURCE: CDFW, 2019

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 3.4-1
CNDDDB Plant Occurrences within 3-Miles of the Project Site



SOURCE: CDFW, 2019

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 3.4-2
CNDDDB Wildlife Occurrences within 3-Miles of the Project Site

Special-Status Fish and Wildlife Species

Special-status fish and wildlife species that may occur in the Project area are listed in Table BIO-2 (Appendix D) and described below. Though green sturgeon is unlikely to occur, it is included in the discussion because critical habitat for this species occurs in the Project area. Additional detail regarding special-status fish and wildlife species that may occur in the Project area is provided in the BRTR (Stillwater Sciences, 2019a).

Pacific Lamprey

Pacific lamprey, a California species of special concern, typically spawns from March through July depending on water temperatures and local conditions such as seasonal flow regimes. Pacific lampreys rear in freshwater from 4 to 10 years (Stillwater Sciences, 2019a). Pacific lamprey are widely distributed in rivers throughout the Humboldt Bay watershed and are likely to occur in the Project area in the intertidal areas of Ryan Slough and Elk River during upstream adult migration and juvenile out-migration. They are expected year-round in suitable portions of the Project area.

North American Green Sturgeon Southern DPS

There are two distinct populations of green sturgeon in California: a southern distinct population segment (DPS) and a northern DPS. The southern DPS of green sturgeon is listed as federally threatened under the Endangered Species Act (FESA) (NMFS, 2006). Green sturgeon from both distinct populations inhabit Humboldt Bay. Critical habitat for the southern DPS of green sturgeon includes all tidally influenced areas of Humboldt Bay (including tributaries) up to the mean high-water elevation (NMFS, 2009); this designation includes Elk River in the Project area.

The southern DPS of green sturgeon enters Humboldt Bay during the summer and early fall to forage but does not likely occur in the Project area. While green sturgeon are known to inhabit Humboldt Bay north of the harbor entrance, this species is not likely to use watercourses and sloughs in the Project area due to relatively small channel sizes and shallow conditions. Green sturgeon in Humboldt Bay are relatively large fish (subadults and adults) and generally prefer the Bay's entrance channel, North Bay, and deeper tidal channels. This species is not known to spawn in Humboldt Bay tributaries because there has never been a recorded incident of a larval or juvenile green sturgeon captured in any downstream migrant trap in the Humboldt Bay area (Stillwater Sciences, 2019a). Green sturgeon spawn in large rivers (such as the Klamath and Eel rivers) with relatively fast water, coarse substrate (e.g., cobbles and small boulders), and depths greater than nine feet; tributaries to the Humboldt Bay do not have the flow, depth, or substrate characteristics that sturgeon prefer, and the green sturgeon that inhabit Humboldt Bay are non-spawning fish.

Longfin Smelt

Longfin smelt were listed as state threatened under the California Endangered Species Act (CESA) in 2009 (CDFW, 2019). Longfin smelt spawn in fresh water during the winter months (February through April). Adult and juvenile longfin smelt can be found in the open waters of estuaries. Suitable habitat for longfin smelt in the Project area is present in Elk River, Martin Slough, and Ryan Slough. Spawning condition adults have been observed in Elk River and Freshwater Slough (near the confluence with Ryan Slough). Longfin smelt are year-round residents of Humboldt Bay and accordingly, may occur within the Project area at any time during the year.

Coho Salmon, Southern Oregon/Northern California Coast ESU

The Southern Oregon/Northern California Coast evolutionary significant unit² (ESU) for coho salmon is listed as threatened under the FESA (NMFS, 2005a) and listed as threatened under the CESA. Designated critical habitat includes all river reaches accessible to listed coho within their range, which includes major rivers, estuaries, and bays. Many smaller coastal rivers and streams in this region also provide essential estuarine habitat for coho salmon, but access may be constrained by seasonal fluctuations in water levels (NMFS, 1999a). Critical habitat in the Project area includes Ryan Slough, Martin Slough, Elk River, and any accessible tributaries. Coho salmon adults typically migrate upstream from October through December, and spawn from November through January.

Coho are known to use sloughs and streams in the Project area. Adult migration and juvenile rearing occurs in the Project area in Elk River and Ryan Slough, and Martin Slough is an important rearing area for juvenile coho (Stillwater Sciences, 2019a). It is unlikely that juvenile coho salmon would move from non-natal watercourses to occupy Buhne Slough because Buhne Slough is relatively isolated from known spawning streams. Spawning within the Project area is unlikely due to the lack of suitable spawning substrate in these sloughs. Adult coho are most likely to be present in the Project area during upstream migration in October through December, and juveniles may be present year-round.

Chinook Salmon, California Coastal ESU

California coastal Chinook salmon were listed in 1999 as threatened under the FESA (NMFS, 1999b). The California coastal Chinook salmon ESU extends from the Klamath River (exclusive) south to the Russian River (inclusive). Juvenile Chinook salmon are known to use Humboldt Bay for foraging and rearing prior to entering the ocean. Critical habitat for California coastal ESU Chinook salmon was designated in 2005 (NMFS, 2005b) and includes Humboldt Bay up to the extent of inundation at extreme high water. Critical habitat also includes numerous tributaries to Humboldt Bay including Elk River and Salmon Creek, among others. In the Project area, critical habitat for California coastal ESU Chinook salmon is in Elk River and Ryan Slough.

Chinook are known to use sloughs and streams in the Project area. Adult migration occurs in the Project area in Elk River and Ryan Slough, and juvenile rearing habitat is also present in these watercourses as well as Martin Slough. Spawning is unlikely within the Project area due to the lack of suitable spawning substrate in these sloughs. Adult Chinook are most likely to be present in the Project area during upstream migration in October through December, and juveniles are most likely to be present during outmigration and early estuarine rearing from approximately February through July.

Steelhead, Northern California Coast DPS

The Northern California Coast steelhead DPS was listed as federally threatened in 2006 under the FESA (NMFS, 2006). Humboldt Bay has been designated as critical habitat up to the extent of extreme high water. Critical habitat also includes numerous tributaries to Humboldt Bay including Elk River and Salmon Creek, among others. Designated critical habitat for northern

² An evolutionarily significant unit (ESU) is a population of organisms that is considered distinct for purposes of conservation. This term can apply to a species, subspecies, geographic race, or population.

California Coast steelhead DPS in the Project area includes Elk River, Martin Slough, and Ryan Slough.

In the Project area, suitable habitat for steelhead adult migration and juvenile rearing is present in Elk River, Martin Slough, and Ryan Slough. Juvenile steelhead are known to use Humboldt Bay for foraging and rearing prior to entering the ocean. Spawning is unlikely within the Project area due to the lack of suitable spawning substrate in these sloughs. Adult steelhead are most likely to be present in the Project area during upstream migration in October through February, and juveniles may be present in the Project area year-round (Stillwater Sciences, 2019a).

Coastal Cutthroat Trout

Coastal cutthroat trout are a California species of special concern (Moyle *et al.*, 2015). Sea-run cutthroat have been documented in most of the tributaries to Humboldt Bay, including Elk River, Martin Slough, and Ryan sloughs. Suitable habitat for coastal cutthroat trout adult migration and juvenile rearing is present within the Project area in Elk River, Ryan Slough, and Martin Slough. Coastal cutthroat trout can potentially be present in these waterbodies in the Project area year-around.

Tidewater Goby

The tidewater goby is federally listed as endangered (USFWS, 1994) and is a California species of special concern. Critical habitat for tidewater goby was refined in 2013 and includes portions of the lower Elk River and Martin Slough (USFWS, 2013) outside of the Project area. The tidewater goby is likely to occur in the Project area in Elk River, Martin Slough, and Ryan Slough because there are several documented occurrences of tidewater goby in these waterways. Sixty tidewater gobies were found in Elk River during sampling for genetic studies in 2006, and one tidewater goby was found in Elk River upstream of the Project area in 2010 (Stillwater Sciences, 2019a). There was one additional goby observation in Martin Slough approximately 0.4 miles upstream of the Project area (Stillwater Sciences, 2019a). Because tidewater gobies have been observed in Freshwater Slough upstream of the confluence with Ryan Slough in 2006 (CDFW, 2019), they likely are also present in Ryan Slough. However, surveys conducted in 2007 within Buhne Slough and an adjacent unnamed slough did not document presence of tidewater goby (Stillwater Sciences, 2019a).

Southern Torrent Salamander

Southern torrent salamander is a California species of special concern. Southern torrent salamanders are found in rocky headwater streams in mesic late-successional forest or nearby riparian forests, though the species may be found in younger stage forests in coastal northern California, presumably due to marine-influenced temperature control. Species in the genus *Rhyacotriton* are the most drought-intolerant species of salamander known and rely heavily on moist environments. Reproduction likely occurs along the shallow margins of streams, springs, and seeps. Little is known about southern torrent salamander egg mass deposition habitat since there have been only two egg clutches described, both attached to the underside of boulders, mid-channel in shallow, cold streams. Larvae generally occur in cold (44–59°F), low-velocity flows over loose, coarse rock or rubble substrates with low sedimentation. Adults are usually

found in contact with cold water, though they may occasionally be found in moist upland areas (Stillwater Sciences, 2019a).

Southern torrent salamanders may occur in the Project area in rocky streams, seeps, or springs within redwood or montane riparian habitats. In 2002, the species was documented about 3.5 miles northeast of the Project area at a small road-side seep in second-growth redwood forest, and in 2013, one individual was captured approximately 3.3 miles from the Project area in Eureka (CDFW, 2019).

Northern Red-legged Frog

Northern red-legged frog is a California species of special concern. Northern red-legged frogs utilize a variety of habitats throughout their various life stages. Aquatic sites such as coastal lagoons, pools, marshes, ponds, or backwater areas are used for breeding. Deep pools are a particularly important breeding habitat feature as they allow frogs to evade predation. Other sources of cover include emergent vegetation, undercut banks, and root-wads. Upland habitats such as open grasslands with seeps and springs may be used for over-summering and for foraging. In northwestern California, northern red-legged frogs have been observed in dense understory vegetation such as ferns and sedges in streamside flats within stands of redwoods. Breeding for northern red-legged frogs generally occurs in late winter through early spring, typically when water temperatures exceed 43–46°F. Eggs hatch in the spring (March–April) and tadpoles metamorphose in June or July (Stillwater Sciences, 2019a).

Northern red-legged frogs have been documented in suitable habitat within the Project area and have the potential to occur in montane riparian, freshwater emergent upland, and saline emergent wetlands, as well as in redwoods or grasslands where there are streams or seeps and associated upland habitats. Several adult northern red-legged frogs were observed in the Project area near Buhne Slough and its tributaries during monitoring and surveys for other projects between 2014–2017, and breeding was documented in aquatic habitat on the Eureka municipal golf course near Martin Slough in 2010 (CDFW, 2019). Other sightings have been made in and near Martin Slough and Ryan Slough (Stillwater Sciences, 2019a).

Western Pond Turtle

Western pond turtle is a California species of special concern. Western pond turtles inhabit fresh or brackish water characterized by areas of deep water, low velocities, moderate amounts of riparian vegetation, warm water and/or ample basking sites, and underwater cover elements, such as large woody debris and rocks; hatchlings spend much of their time feeding in shallow water with dense submerged or short emergent vegetation (Jennings and Hayes, 1994). Although primarily an aquatic reptile, western pond turtles may utilize upland habitats (typically within 0.3 miles of aquatic habitats) for overwintering, nesting, and basking. Western pond turtle eggs are typically laid in June and July, though they may be laid throughout the year. Egg-laying sites vary from sandy shoreline to forest soil types, though are generally located in grassy meadows, away from trees and shrubs, with canopy cover commonly less than about 10 percent. Young hatch in late fall or overwinter in the nest and emerge in early spring (Stillwater Sciences, 2019a).

Suitable western pond turtle aquatic habitat occurs in Buhne Slough, Elk River, Martin Slough, and Ryan Slough. This species has been documented in Martin Slough north of the Project area, and along Freshwater Creek approximately two miles east of the Project area (CDFW, 2019).

White-tailed Kite

White-tailed kite is a state fully protected species. White-tailed kites are associated with ungrazed grasslands, agricultural fields, wetlands, and meadows, as these habitats support their prey of small mammals. Groves of trees are required for perching and nesting, and roost sites are typically small stands of trees. White-tailed kites breed from February through October, although peak breeding occurs from May through August (Zeiner *et al.*, 1990a).

White-tailed kite is a common resident and breeder throughout Humboldt County and has been documented throughout the Project area (CDFW, 2019; eBird, 2019), including observations during 2012 wildlife surveys (Stillwater Sciences, 2019a). This species may nest in groves of trees associated with montane riparian forest or redwoods, and forage in nearby grasslands.

Bald Eagle

Bald eagle is federally delisted, protected by the federal Bald and Golden Eagle Protection Act, state-listed as endangered, and state fully protected. This species is a year-round resident and uncommon winter migrant in California (Zeiner *et al.*, 1990a). Bald eagles typically breed from March through August near coastal areas, rivers, lakes, and reservoirs with forested shorelines or cliffs in northern California. Bald eagles winter throughout most of California in lower elevations, with large concentrations in the Klamath Basin (Zeiner *et al.*, 1990a). Wintering bald eagles are associated with open water habitats for foraging. Bald eagles forage and scavenge within large bodies of water containing abundant fish, such as estuaries, coastal waters, rivers, large lakes, and reservoirs. High snags, trees, and open rocky slopes provide hunting perches; open, easily approached perches and feeding areas are preferred (Stillwater Sciences, 2019a).

In the Project area, relatively large waterbodies such as the Elk River provide suitable foraging habitat. While bald eagle observations near the Project area are common (eBird, 2019), the potential for nesting in or near the Project area is relatively low. There is a lack of tall nesting trees near large waterbodies suitable for foraging. The closest documented nest was observed in 2005, approximately three miles south of the Project area (CDFW, 2019).

Northern Harrier

Northern harrier is a California species of special concern. Northern harrier is closely associated with meadows, marshes, and wetlands, and other suitable habitats include grasslands, ungrazed or lightly grazed pastures, and grain fields. These types of habitat support their prey, as northern harriers feed primarily on voles or other small mammals. Northern harriers nest on the ground in shrubby vegetation, usually along the edge of marshes. Nests are constructed of larger plants (e.g., willows, cattails) at the base with grasses and sedges lining the interior. Northern harrier is a highly territorial species that breeds from April through September, with peak breeding during June and July (Zeiner *et al.*, 1990a). Northern harrier were observed in the Project area during 2012 wildlife surveys (Stillwater Sciences, 2019a). There is suitable nesting and foraging habitat, especially around Buhne Slough, but also near Martin Slough and Ryan Slough.

American Peregrine Falcon

American peregrine falcon is a state fully protected species. During the winter, the American peregrine falcon has been found throughout the Central Valley (Zeiner *et al.*, 1990a). This species uses a variety of open habitats including wetlands, woodlands, cities, agricultural lands, and coastal areas; riparian habitat and wetlands are particularly important for foraging and nesting often occurs in proximity to these habitats (Zeiner *et al.*, 1990a). American peregrine falcons typically nest in open settings with unobstructed views and open access, often near water (e.g., wetlands, rivers, coastal areas) and forage over water or grassland areas. Nests are usually made in a depression or scrape on a high cliff ledge, but are also found in dunes, human-made structures, and occasionally within abandoned raptor nests in large, predominant snags or trees (Zeiner *et al.*, 1990a).

The Project area has suitable foraging habitat for peregrine falcon, especially along emergent wetlands and grasslands around the western end of the Project area. However, there is no nesting habitat in the Project area (e.g., prominent cliffs or tall buildings). This species was observed foraging in the Project area during 2012 wildlife surveys (Stillwater Sciences, 2019a).

Northern Spotted Owl

The northern spotted owl is federally listed as threatened and is state-listed as threatened. Northern spotted owls are uncommon year-round residents in the northern California coastal ranges from Marin County north, as well as within the Cascade Range in northern California, southeast to the Pit River in Shasta County below 7,600 feet (Stillwater Sciences, 2019a).

Northern spotted owls are typically associated with complex mature or old-growth stands dominated by conifers, particularly redwoods with hardwood understories (USFWS, 2011). Roosting sites are characterized by dense canopy cover dominated by large-diameter trees (i.e., greater than 30-inch diameter at breast height), multiple canopy layers, and north-facing slopes, often in cool shady areas. Nests tend to be found in tree or snag cavities, on platforms (e.g., abandoned raptor or raven nests, squirrel nests, mistletoe brooms, or debris accumulations), or on broken-top snags (Zeiner *et al.*, 1990a). In late February or early March, pairs begin roosting in cavities, the tops of broken trees, or abandoned nests; nesting is followed by peak breeding in April and May (Zeiner *et al.*, 1990a).

Green Diamond Resource Company conducts annual monitoring for northern spotted owls, including in the McKay Tract. Surveys are conducted to determine the location of activity centers, document any new northern spotted owl occurrences, and night call surveys are performed to monitor historically occupied sites for current activity. An activity center represents the central location for northern spotted owl use, typically identified by a nest site, breeding season roost site, or an area of concentrated detections.

Northern spotted owl may forage in the Project area but are unlikely to nest there. Suitable foraging habitat for northern spotted owl in the Project area is present in contiguous areas of redwood forest, primarily throughout the McKay Tract. There are five northern spotted owl activity centers within two miles of the Project area, the closest of which is under one mile away (CDFW, 2019). Of several owl observations associated with these activity centers, there has only

been one confirmed nesting attempt since 2014, associated with an activity center approximately two miles outside the Project area (Stillwater Sciences, 2019a).

Vaux's Swift

Vaux's swifts are a California species of special concern. The Vaux's swifts are migrant and summer residents in California. Along the northern California coast, Vaux's swifts prefer nesting in cavities and burned-out tree hollows in coniferous forests, often in old-growth redwood and, less often, in Douglas fir forests (Zeiner *et al.*, 1990a). Vaux's swifts have been very occasionally documented nesting in man-made structures in urban areas, such as chimneys or cracks in highway bridges. During migration, large roost trees and chimneys are important for Vaux's swifts to avoid exposure and conserve body heat. Birds forage above the forest canopy, in forest openings such as burn areas, and above streams and rivers (Zeiner *et al.*, 1990a).

Numerous sightings of Vaux's swift have been documented in the vicinity of the Project area (eBird, 2019), including an observation in the Project area during 2012 wildlife surveys (Stillwater Sciences, 2019a). Suitable foraging and nesting habitat in the Project area includes redwood forest associated with the McKay Tract (Stillwater Sciences, 2019a).

Olive-sided Flycatcher

Olive-sided flycatcher is a California species of special concern. This species is a migrant, summer resident. Olive-sided flycatcher primarily occur in advanced successional coniferous forests with open canopies, near forest edges or forest openings (e.g., meadows, rivers, harvest units), and with abundant perches (Zeiner *et al.*, 1990a). The birds prefer nesting areas near water bodies, potentially due to increased insect abundance in these areas (Stillwater Sciences, 2019a). The olive-sided flycatcher may forage and nest in forested sections of the Project area including montane riparian and redwood. There are several documented occurrences of olive-sided flycatcher in the vicinity of the Project area (eBird, 2019). The species has also been observed exhibiting territorial behavior (i.e., possibly nesting) during the 2012 wildlife surveys in the edge of montane riparian habitat in the middle-western end of the Project area (Stillwater Sciences, 2019a).

Willow Flycatcher

Willow flycatcher is state-listed as endangered. Willow flycatchers require dense riparian shrubland, often thickets of willows or alder, near permanent standing water for foraging and nesting. Deciduous shrubs and small trees at least 6.6 feet tall are required for nesting; however, areas with dense upper-story tree cover are not suitable. Willow flycatchers winter in Mexico and Central America and are late spring migrants (typically mid-May to mid-June) to breeding grounds in North America. Although willow flycatcher historically nested throughout California wherever suitable habitat occurred, currently the species typically breeds in wet meadow and montane riparian habitats, at elevations of 2,000–8,000 feet, primarily in the Sierra Nevada and Cascade ranges (Stillwater Sciences, 2019a). Willow flycatcher does occasionally occur in riparian areas at lower elevations, including the north coast of California, primarily as a migrant (eBird, 2019). Documented occurrences of breeding willow flycatchers in Humboldt County are rare. The closest confirmed nesting occurrence is located over 40 miles north of the Project area (Stillwater Sciences, 2019a).

Habitat suitable for willow flycatcher foraging and nesting in the Project area is in montane riparian habitat, particularly areas with a significant component of alder and willow such as along the Elk River, Martin Slough, tributaries to Ryan Creek in the McKay Tract and between Redwood Acres Fairgrounds, and Ryan Slough. While the Project area is part of this species' historical range, current documented occurrences are uncommon. There is a very low potential for breeding in the Project area due to lack of contiguity of suitable riparian habitat and the scarcity of recent documented breeding occurrences in the region. However, willow flycatchers occasionally occur as migrants along the northern coast of California in late spring and more frequently in fall (eBird, 2019). Documented occurrences in this region are likely those of late migrants traveling inland, since this species often migrates late in the season (Stillwater Sciences, 2019a).

Yellow Warbler

Yellow warbler, a California species of special concern, is a summer resident that breeds throughout much of California, except the Central Valley, southern Californian deserts, and high Sierra Nevada (Zeiner *et al.*, 1990a). The preferred habitat of yellow warbler includes open canopy or deciduous riparian vegetation, often along streams or wet meadows. This species frequently nests in small willows and alders, and is also associated with cottonwoods, Oregon ash, and other riparian shrubs and trees, depending upon the geographic region (Zeiner *et al.*, 1990a). This species also occasionally nests in montane chaparral in open coniferous forests. Breeding occurs from mid-April through early August, with peak activity in June (Zeiner *et al.*, 1990a). Yellow warblers nest two to 16 feet above ground, at the bases of branches (branch forks) in small deciduous trees and shrubs, often in willow thickets. Birds forage for insects within the shrub and tree canopy, occasionally feeding on the wing or eating fruit (Zeiner *et al.*, 1990a).

There are many documented occurrences of yellow warbler during the breeding season in the vicinity of the Project area (eBird, 2019). Suitable foraging and nesting habitat for yellow warbler in the Project area is located in montane riparian habitat, particularly areas with a significant component of alder and willow, such as along the Elk River, Martin Slough, tributaries to Ryan Creek in the McKay Tract and between Redwood Acres Fairgrounds and Ryan Slough (Stillwater Sciences, 2019a).

Marbled Murrelet

The marbled murrelet (*Brachyramphus marmoratus*) is federally threatened and state endangered. It has critical habitat in Washington, Oregon and California, where it occurs mainly in Humboldt County, but also as far south as Santa Cruz and San Mateo Counties. The closest critical habitat to the Project area is in the Headwaters Forest Reserve, approximately five miles southeast. Marbled murrelets forage along the Pacific Coast and breed in old-growth and mature coastal forests from central California north beyond the Oregon border (USFWS, 1997). In California, nesting occurs from March through September in late-successional stands of conifers. Marbled murrelets exhibit site fidelity and are known to return to the same stand, and even the same tree, from year to year (USFWS, 1997). This species is thought to lay one single-egg clutch, usually during early morning hours (Zeiner *et al.*, 1990). Incubation is shared equally by both parents; one adult sits on the egg while the other forages at sea. Adults make up to eight visits each day to the nest to bring food to the chick, typically at dawn and dusk (USFWS, 1997), and may fly over

the Project area while travelling to and from nests. There is no suitable nest habitat for marbled murrelet in the Project area.

Other Migratory Birds or Raptors

In addition to the species listed previously, other special-status or non-special-status migratory bird species and/or raptors could establish nests in suitable habitat in or near the Project area, primarily in trees, shrubs, poles, towers, grasslands, buildings, or other nesting structures.

Fisher

The fisher is a California species of special concern and is federally proposed as threatened. On the west coast, fishers occur in the northern Coast Range, Cascades and Sierra Nevada. This carnivore occurs in intermediate to large-tree stages of coniferous forests and deciduous-riparian habitats with a high percentage of canopy closure. Fishers den and raise young in a variety of protected cavities, brush piles, logs or under upturned trees, especially in hollow logs, trees, and snags. Fishers are solitary except during the breeding season from late February to mid-May. Birth occurs nearly one year after breeding; litters range from one to three kits. Fishers consume a variety of prey opportunistically, including squirrels, mice, and birds (USFWS, 2016). Potential habitat within the Project area consists of montane riparian and coniferous forest, present in the northern/eastern portion of the alignment (e.g., the McKay Tract). The closest CNDDB record is over 10 miles away (CDFW, 2019).

Townsend's Big-eared Bat

Townsend's big-eared bat is a California species of special concern. This species occurs throughout California and is associated with caves and structures in a variety of habitats from deserts to coastal scrub to montane forests. This cavity-dwelling species roosts and hibernates in caves (commonly limestone or basaltic lava), mines, buildings, bridges (with a cave-like understructure), rock crevices, tunnels, basal hollows in large trees, and cave-like attics. Townsend's big-eared bats breed in both transitory migratory sites and hibernacula between September or October and February (CDFW, 2013). The maternity season extends from March 1 through October 31, with colonies forming between March and June and breaking up by September or October (CDFW, 2013).

Potential habitat within the Project area with the highest potential for roosting Townsend's big-eared bat consists of redwood forest (e.g., in basal hollows), and/or in barns, old buildings, and bridges. Redwood forest is interspersed throughout the Project area but is most common in the northern/ eastern portion of the Project area (e.g., McKay Tract). There is one CNDDB record approximately 1.8 miles from the Project area (CDFW, 2019).

Pallid Bat

Pallid bat is a California species of special concern that occurs year-round in California. Pallid bats are associated with a variety of habitats from desert to coastal regions. At low- to mid-elevations, pallid bats are particularly associated with oak habitat (oak savannah, black oak, and oak grasslands). In natural settings, day and night roosts are found in rock crevices and cliffs, but can also be found in caves and trees (underneath exfoliating bark of pine and oak and in hollows). In more urban settings (e.g., Central Valley and western Sierran foothills), day and night roosts

are frequently associated with human structures such as abandoned buildings, old mine workings, and bridges. Overwintering roosts require relatively cool and stable temperatures out of direct sun light (Stillwater Sciences, 2019a). Pallid bats may forage in all habitat types in the Project area. Suitable roosting habitat is present in forest stands including montane riparian and redwood, and in buildings and bridges throughout the Project area. No tunnels, caves, or mines are known to occur in the Project area.

Habitat Conservation Plans

The eastern portion of the existing power line crosses through the Green Diamond Resource Company's Northern Spotted Owl Habitat Conservation Plan (HCP) area, though construction of the Project is not covered by this HCP. There are currently no other HCPs or Natural Community Conservation Plans within the Project area.

3.4.2 Regulatory Setting

Federal

Endangered Species Act

The federal Endangered Species Act (FESA) of 1973 (16 USC 1531–1544), as amended, protects plants, fish, and wildlife that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) or the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS). Section 9 of the ESA prohibits the “take” of listed fish and wildlife, where “take” is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50 Code of Federal Regulations [CFR] §17.3). For plants, this statute prohibits removing, possessing, maliciously damaging, or destroying any listed plant under federal jurisdiction and removing, cutting, digging-up, damaging, or destroying any listed plant in knowing violation of state law (16 United States Code [USC] §1538).

The FESA allows for issuance of incidental take permits to private parties either in conjunction with an HCP or as part of a Section 7 consultation. Under Section 10 of the FESA, a private party may obtain incidental take coverage by preparing an HCP to cover target species within the project area, identifying impacts on the covered species, and presenting the measures that will be undertaken to avoid, minimize, and mitigate such impacts.

Under Section 7 of the FESA, federal agencies are required to consult with USFWS and/or NMFS, as applicable, if their actions—including permit approvals or funding—may affect a federally listed species (including plants) or designated critical habitat. If the project is likely to adversely affect a species, the federal agency will initiate formal consultation with the USFWS and/or NMFS, which will issue a biological opinion as to whether the proposed agency action(s) is likely to jeopardize the continued existence of a listed species (jeopardy) or adversely modify critical habitat (adverse modification). As part of the biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity, provided that the action will not jeopardize the continued existence of the species or adversely modify designated critical habitat.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 USC §§703–711) protects all migratory birds, including active nests and eggs. Birds protected under the MBTA include all native waterfowl, shorebirds, hawks, eagles, owls, doves, and other common birds such as ravens, crows, sparrows, finches, swallows, and others, including their body parts (for example feathers and plumes), active nests, and eggs. A complete list of protected species can be found in 50 CFR §10.13. Enforcement of the provisions of the MBTA is the responsibility of USFWS.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 USC §668) specifically protects bald and golden eagles and their nests from harm or trade in parts of these species. The 1972 amendments increased penalties for violating provisions of the BGEPA or regulations issued pursuant thereto and strengthened other enforcement measures. Rewards are provided for information leading to arrest and conviction for violation of the BGEPA.

Waters and Wetlands: Clean Water Act Sections 401 and 404

The purpose of the Clean Water Act (CWA) (33 USC §1251 et seq.) is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Waters of the United States include rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas “that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR §328.3).

The U.S. Army Corps of Engineers (USACE) issues permits for work in wetlands and other waters of the United States based on guidelines established under Section 404 of the CWA. Section 404 of the CWA prohibits the discharge of dredged or fill material into waters of the United States, including wetlands, without a permit from USACE. U.S. EPA also has authority over wetlands and may, under Section 404(c), veto a USACE permit.

Section 401 of the CWA requires all Section 404 permit actions to obtain a state Water Quality Certification or waiver, as described in more detail in Section 3.9, Hydrology and Water Quality.

State

California Endangered Species Act

Sections 2050–2098 of the California Fish and Game Code (the California Endangered Species Act [CESA]) prohibit the take of state-listed endangered and threatened species unless specifically authorized by the CDFW. The state definition of “take” is to hunt, pursue, catch, capture, or kill a member of a listed species or attempt to do so. CDFW administers CESA and authorizes take through permits or memorandums of understanding issued under Section 2081 of CESA, or through a consistency determination issued under section 2080.1. Section 2090 of CESA requires state agencies to comply with threatened and endangered species protection and recovery and to promote conservation of these species.

Fully Protected Species Under the Fish and Game Code

Fish and Game Code designates certain fish and wildlife species as “fully protected” under Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish). Fully protected species may not be taken or possessed at any time, and no permits may be issued to PG&E for incidental take of these species.³

Protection for Birds: Fish and Game Code

Fish and Game Code Section 3503 et seq. state that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird.

Native Plant Protection Act of 1973

The Native Plant Protection Act of 1973 (Fish and Game Code §§1900–1913) includes provisions that prohibit the taking of endangered or rare native plants. CDFW administers this Act and generally regards as rare many plant species included on California Rare Plant Rank (CRPR) 1A, 1B, 2A, and 2B of the CNPS Inventory of Rare and Endangered Vascular Plants of California. In addition, sometimes CRPR 3 and 4 plants are considered if the population has local significance in the area and is impacted by the project.

Section 1913(b) includes a specific provision to allow for the incidental removal of endangered or rare plant species, if not otherwise salvaged by CDFW, within a right-of-way to allow a public utility to fulfill its obligation to provide service to the public.

California Species of Special Concern

Species of special concern is a category conferred by CDFW to fish and wildlife species that meet the state definition of threatened or endangered, but have not been formally listed (e.g., federally or state-listed species), or are considered at risk of qualifying for threatened or endangered status in the future based on known threats. This category is an administrative classification only, but these species should be considered “special-status” for the purposes of the CEQA analysis.

Porter-Cologne Water Quality Control Act

The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (each a RWQCB) have jurisdiction over all surface water and groundwater in California, including wetlands, headwaters, and riparian areas. The SWRCB or applicable RWQCB must issue waste discharge requirements for any activity that discharges waste that could affect the quality of waters of the state, as described in more detail in Section 3.9, Hydrology and Water Quality.

³ While take of fully protected species may be authorized by CDFW under a Natural Communities Conservation Plan (NCCP), PG&E activities are not covered by an NCCP so this permitting option is not available.

California Coastal Act

As described in Section 3.10 Land Use and Planning, projects located in the coastal zone may require a Coastal Development Permit (CDP). CDPs are issued either by the California Coastal Commission (CCC) directly or a local jurisdiction with an approved Local Coastal Program (LCP). An important California Coastal Act (CCA) policy is the protection, enhancement, and restoration of environmentally sensitive habitats and areas. Section 30107.5 of the CCA defines an “environmentally sensitive area” as “...any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.” In addition, the CCA uses a broader definition of wetlands (1-parameter) than the definition used by USACE and U.S. EPA to define federally jurisdictional wetlands under the Clean Water Act (3-parameter).

Humboldt Bay Area Plan of the Humboldt County Local Coastal Program

The Humboldt Bay Area Plan of the Humboldt County LCP identifies requirements for development within the coastal zone adopted by Humboldt County, and certified by the CCC, to satisfy the policies and requirements for coastal land use contained in the CCA of 1976 (Pub. Res. Code §30000 et seq.) and other related legislation. Approximately 4.2 miles of the existing power line alignment occur within the jurisdictional boundary of the Humboldt County LCP. Section 3.30 of the LCP describes the Natural Resources Protection Policies and Standards for biological resources. Zoning regulations that implement the policies of the Land Use and Development portion of the adopted LCP are codified in Chapters 2 and 3 of the Humboldt County Code Zoning Regulations.

As detailed in Section 3.10, portions of the Project are also within the retained jurisdiction of the CCC. Humboldt County has requested to have the Project consolidated to allow the CCC to review and implement the permitting requirements for the entire Project.

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction.” The discussion below presents local policies and regulations for informational purposes only; the CPUC does not consider these regulations “applicable” as that term is used in CEQA.

Humboldt County General Plan and Zoning Codes

Outside of the coastal zone, Chapter 4, Section 314-61.1 of the Humboldt County Code Zoning Regulations codifies the County’s Streamside Management Area Ordinance, which establishes standards pertaining to the use and development of land located within Streamside Management Areas (SMAs) and other wet areas such as: natural ponds, springs, vernal pools, marshes, and wet meadows for projects subject to local land use jurisdiction.

Other policies described in the Humboldt County General Plan to protect biological resources include: planning and zoning areas with sensitive habitats for long-term sustainability of the

habitat, characterizing wetlands in the vicinity of proposed projects, conserving and minimizing impacts to oak woodlands, managing and controlling noxious and exotic invasive plant species, coordinating with agencies to review plans for development within sensitive habitat (including SMAs), and establishing a program to identify and protect landmark trees.

3.4.3 Applicant Proposed Measures

The following measures pertaining to biological resources have been proposed by PG&E and would be implemented as part of the proposed Project.

APM BIO-1: Development and implementation of a Worker Environmental Awareness Program. A qualified biologist will conduct an environmental awareness program for all on-site construction personnel before they begin work on the project. Training will include a discussion of the avoidance and minimization measures that are being implemented to protect biological resources as well as the terms and conditions of project permits. Training will include information about the federal and state Endangered Species Acts and the consequences of noncompliance with these acts. Under this program, workers shall be informed of the presence, life history, and habitat requirements of all special-status species that may be affected in the project area, and about state and federal laws protecting nesting birds, wetlands, and other water resources. An educational brochure will be produced for construction crews working on the project. Color photos of special-status species will be included, as well as a discussion of relevant APMs and specific avoidance or minimization measures for special-status species and habitats.

APM BIO-2: General Resource Protection Measures. This APM consists of the following components:

- *Litter and trash management.* All food scraps, wrappers, food containers, cans, bottles, and other trash will be removed from the site daily.
- *Parking.* Vehicles and equipment will be parked on pavement, existing roads, developed areas, or approved construction work areas.
- *Route and speed limitations.* Vehicles will be confined to established roadways or previously disturbed roadways and pre-approved access roads, overland routes, and construction work areas. Access routes and temporary construction work areas will be limited to the minimum necessary to achieve the project goals. Vehicular speeds will be limited to 15 miles per hour on unpaved roads.
- *Maintenance and refueling.* All equipment will be maintained to avoid leaks of automotive fluids such as fuels, solvents, or oils. All refueling and maintenance of vehicles and other construction equipment will be restricted to designated staging areas located at least 100 feet from any down-gradient aquatic habitat, unless otherwise isolated from habitat by secondary containment. Proper spill prevention and cleanup equipment will be maintained in all refueling areas.
- *Hazardous materials spills.* Emergency spill response and cleanup kits will be readily available for immediate containment and cleanup of an accidental spill. Construction crews will be trained in safe handling of hazardous materials and cleanup responsibilities. Any spills into aquatic habitat will be reported to the CPUC, USACE, State Water Resources Control Board, and the California Coastal Commission (if within the coastal zone) within 24 hours.

- *Pets and firearms.* No pets, hunting, open fires (such as barbecues), or firearms will be permitted at the project site.
- *Reporting and communication.* The PG&E project biologist will be responsible for immediately reporting any capture and relocation, or inadvertent harm, entrapment, or death of a federally or state listed species under ESA or CESA, respectively to the USFWS and CDFW, respectively.
- *Restore temporarily disturbed habitats.* All habitat areas for special-status species that are temporarily disturbed as a result of project activities will be restored upon completion of construction. Disturbed areas will be restored to pre-project conditions in coordination with land owners and in compliance with resource agency permit conditions. Tidal marsh areas will be allowed to passively restore or as otherwise required by resource agency permit requirements.
- *Erosion control materials.* Only tightly woven netting or similar material will be used for all geo-synthetic erosion control materials such as coir rolls and geo-textiles. No plastic monofilament matting will be used.
- *Minimize grading and vegetation removal along access roads and construction work areas, to the extent feasible.* PG&E will only trim, clear, or remove vegetation as necessary to establish the access routes and allow equipment use. Trees will be directionally felled away from sensitive biological resource areas, and if that is not possible, removed in sections. Damage to adjacent trees will be avoided to the extent possible.
- *Weed management.* Vehicles and construction equipment will be cleaned of mud and dirt on site at a PG&E wash facility or otherwise approved wash-down location as needed to minimize transport of weed plant parts or seed. Vehicles will also be cleaned at the completion of the project or when off-road use for that vehicle has been completed.

APM BIO-3: Conduct Preconstruction Survey(s) for Special-Status Species and Sensitive Biological Resource Areas. A qualified biologist will conduct pre-construction survey(s) in areas identified in the BRTR as having habitat for special-status species and sensitive biological resource areas, either during the appropriate phenological period for plants or within 7 days prior to construction activities for wildlife. If any special-status species is encountered during the pre-construction survey(s), the PG&E project biologist will be contacted immediately. If any special-status species are found nearby but outside the construction work area, they will not be disturbed. If recommended by the biologist, a temporary silt-fence barrier may be installed to prevent special-status species from entering the construction work area(s) during project activities.

APM BIO-4: Identification and Marking of Sensitive Biological Resource Areas. Sensitive biological resources (e.g., special-status plants, wetlands) in or adjacent to construction work areas identified during the pre-construction surveys, will be clearly marked in the field and on project maps. Such areas will be avoided during construction to the extent practicable.

APM BIO-5: Biological Monitor On-Site during Construction Activities in Sensitive Biological Resource Areas. A qualified biologist will be onsite during ground-disturbing construction activities in sensitive biological resource areas identified in APM BIO-4 above unless the area has been protected by barrier fencing to protect sensitive biological

resources and previously cleared by the qualified biologist. The qualified biologist will ensure implementation and compliance with all avoidance and mitigation measures and have the authority to stop or redirect work if construction activities are likely to affect sensitive biological resources.

APM BIO-6: Nesting Bird Impact Avoidance and Protection. If construction work is scheduled during the nesting season (February 1 through August 31), nest detection surveys will correspond with a standard buffer for individual species in accordance with the species-specific buffers set forth in Appendix C of the PEA and will occur within 7 days prior to the start of construction to determine nesting status by a qualified biologist. Nest surveys will be accomplished by ground surveys and will support phased construction, with surveys scheduled to be repeated if construction lapses in a construction work area for 7 days between March and July. Access for ground surveys will be subject to property owner permission.

If active nests containing eggs or young are found, the biologist will establish a species-specific nest buffer, as defined in Appendix C of the PEA. Where feasible, standard buffers will apply, although the biologist may increase or decrease the standard buffers in accordance with the factors set forth in Appendix C. Nesting pair acclimation to disturbance in areas with regularly occurring human activities will be considered when establishing nest buffers. The established buffers will remain in effect until the young have fledged or the nest is no longer active as confirmed by the biologist. Active nests will be periodically monitored until the biologist has determined that the young have fledged or once construction ends. At the discretion of the biologist, vegetation removal by hand may be allowed within nest buffers or in areas of potential nesting activity. Inactive nests may be removed in accordance with PG&E's approved avian permits. The biologist will have authority to order the cessation of nearby project activities if nesting pairs exhibit signs of disturbance.

APM BIO-7: Special-Status Plant Impact Avoidance and Protection. Prior to the start of construction and in conjunction with APM-BIO 3, a qualified botanist will resurvey mapped populations of Lyngbye's sedge and flag or otherwise mark (e.g., stake, fence) all special-status plant populations documented adjacent to construction work areas for avoidance as feasible. After project activities have been completed at a given worksite, all staking, fencing, or flagging will be removed.

If complete avoidance of special-status plant populations is not possible, PG&E will implement the following:

- PG&E will limit driving across special-status plant populations to the greatest extent feasible. Where direct disturbance to topsoil (except excavation) is unavoidable, matting and other protection measures (e.g., rig mats, timber roads, plating, or tracked vehicles) will be used to minimize soil compaction or destruction of underground plant structures. Matting and other protection measures will be approved by a qualified biologist before work begins at that location.
- For any unavoidable excavation required within Lyngbye's sedge populations, the upper 6 inches of topsoil containing the plant's rhizomes will be stockpiled. PG&E will use the stockpiled topsoil to restore the area after temporary construction has been completed.

APM BIO-8: Special-Status Amphibian and Reptile Impact Avoidance and Protection. During wet weather or the rainy season, all open holes, pits, and trenches will be protected to ensure that frogs, salamanders, and/or turtles do not become entrapped. Protective fencing, coverings, or ramps will be installed to either prevent wildlife from falling into excavations or to allow for escape. At the end of each work day, steep-walled holes or trenches more than six inches deep will be covered or provided with one or more escape ramps and/or fenced. Open excavations will be inspected each morning, prior to the start of construction activities, to ensure that no wildlife are trapped. Construction personnel will also check underneath vehicles and within materials to be moved (i.e., tires, tracks, pipes, etc.) for the presence of frogs, salamanders, and/or turtles when parked or placed near suitable aquatic or upland dispersal habitat. Any species found will be captured and relocated to an approved location as approved by the resource agencies, if required, and in compliance with any regulatory permits issued for the project.

APM BIO-9: Implement General Protection Measures for Wetlands and Other Waters. PG&E will implement the following general measures to minimize or avoid impacts on wetlands and other waters:

- Avoid wetlands and other waters to the extent feasible.
- Construction activities in wetlands will generally occur during the dry season (May 1 to October 15) to the extent feasible.
- Ground-based construction activities in tidally influenced wetlands near Buhne Slough will not occur during extreme high tide events that would flood the construction work areas.
- Where travel across seasonal wetlands is necessary, it will occur during dry conditions, when feasible, to avoid soil compaction or mixing. If travel is required during wet or moist conditions, temporary matting or other protection measure (e.g., rig mats, timber roads, plating, or tracked vehicles [preferably rubber tracked]) will be used to avoid soil compaction or mixing. Matting and other protection measures will be approved by a qualified biologist before construction work at that location begins.
- Conduct all fueling of vehicles at least 100 feet from wetlands and other water bodies unless approved by a qualified biologist.
- Set construction work areas back at least 50 feet from streams, creeks, or other water bodies unless approved by a qualified biologist.
- Implement a Storm Water Pollution Prevention Plan (SWPPP) to minimize construction-related erosion and sediments from entering nearby waterways (see APM WQ-1).

APM BIO-10: Restore Temporarily Impacted Wetlands and Other Waters. All wetlands and other waters that are temporarily disturbed as a result of project activities will be restored following completion of construction in accordance with any applicable resource agency permits.

APM BIO-11: Compensate for Permanent Impacts on Wetlands and Other Waters in Accordance with Project Permits. PG&E will compensate for permanent impacts on wetlands by providing at least 1:1 mitigation for any unavoidable permanent impacts to

wetlands and waters within the coastal zone and in compliance with resource agency permit requirements. Final compensation ratios for impacts to wetlands and waters throughout the project alignment will be based on site-specific information and finalized through discussions with the U.S. Army Corps of Engineers and the North Coast Regional Water Quality Control Board as part of the permitting processes for the project.

APM BIO-12: Helicopter work will not commence until at least two hours after sunrise and will end at least one hour before sunset to avoid the potential to interrupt peak daily feeding cycles for marbled murrelet.

3.4.4 Environmental Impacts

Approach to Analysis

Potential Project impacts on biological resources were evaluated against CEQA significance criteria. The impact analysis is based on Project information provided in the Project Description, and on information gathered during reconnaissance field surveys, the biological resources technical report, and the wetland delineation.

The Project would involve contouring, grading, and rock in construction work areas. Construction work areas include staging areas, pole work areas, helicopter landing zones, and access roads. Vegetation clearance and matting (or plating) of drainage crossings may be required for vehicle access. Following construction, existing access routes would not be re-vegetated; they would continue to be used for operations and maintenance. Temporary construction work areas and staging areas would be restored in coordination with landowners and in compliance with resource agency permit conditions, and would include applying a native seed mix or other seed mix in areas of ground disturbance. Temporary overland access routes would be allowed to return to the natural state.

The operations and maintenance activities required for the reconductored power lines would not change from those currently required for the existing system; thus, no operation-related impacts on biological resources would occur. Furthermore, a total of 14 wood poles would be removed from wetland habitat, reducing overall potential operations and maintenance related impacts on biological resources than under current conditions because operations and maintenance visits to those locations would no longer be required. Accordingly, the impact analysis is focused only on construction activities required to install the new conductor, remove and top poles, replace existing wooden poles, install new structures, and to establish required access and construction work areas, as described in Chapter 2, Project Description.

Impacts on biological resources from the Project may be temporary or permanent. Temporary impacts would occur during short-term construction activities (i.e., lasting only during the period of construction or subsequent site restoration). Temporary impacts consist of disturbance associated with construction, such as temporary access roads, construction work areas, installation of temporary snub poles, pull sites, and staging areas and grading. Permanent impacts result in the permanent loss of sensitive biological resources from the placement of power poles, access roads, or other permanent features.

Discussion

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.***

Construction work associated with the proposed Project could directly or indirectly (through habitat modification) affect special-status plant, wildlife, and fish species.

Special-Status Plants

One special-status plant species, Lyngbye's sedge, was identified in the Project area during plant surveys conducted in 2016 (Stillwater Sciences, 2019a). Lyngbye's sedge is an obligate riparian and wetland species associated with Elk River, Martin Slough, and Ryan Slough. With the implementation of APMs identified by PG&E, the majority of Lyngbye's sedge occurrences would be avoided, as they are located outside anticipated construction work areas and would be fenced off pursuant to APM BIO-7. Occurrences of this species, however, may be present in some potential construction work areas and access routes. It is possible that some Lyngbye's sedge may be damaged or destroyed by ground disturbance associated with temporary construction activities in construction work areas, including staging areas and temporary access routes. Lyngbye's sedge also may be indirectly affected by soil compaction and the spread of non-native invasive species from Project vehicles and equipment travel and staging. If Lyngbye's sedge cannot be avoided, the implementation of APM BIO-7, including stockpiling the top 6 inches of soil containing rhizomes, would be implemented to reduce potential impacts to Lyngbye's sedge populations to a less-than-significant level. PG&E would also implement APM BIO-1 through APM BIO-5 to further minimize impacts on all special-status plant species.

Vegetation removal, ground disturbance, and vehicle use are among the principal risk factors for the introduction and spread of invasive plant species. Construction of staging areas, temporary access roads, and other ground-disturbing activities may introduce invasive plants into previously uninfested areas or cause existing infestations of invasive plants to spread. Invasive plants can negatively affect the integrity of native species and can modify habitats, making them unsuitable for native plant species (both common and special-status). Implementing APM BIO-1 through APM BIO-5 and APM BIO-7 would avoid, protect, and restore habitats affected by the Project and would minimize the risk that Project activities could introduce and spread invasive plants in the Project area.

With implementation of these APMs, and because Project impacts would be mostly temporary and would not exacerbate the factors that contribute to the rarity of this species (e.g., habitat fragmentation and alterations to hydrologic regime, resulting largely from urbanization), Project activities would have less-than-significant impacts on special-status plants, including Lyngbye's sedge, with no mitigation required.

Special-Status Fish and Wildlife

Fish

Several special-status fish species (i.e., Pacific lamprey, longfin smelt, coho salmon, Chinook salmon, steelhead, coastal cutthroat trout, and tidewater goby) have the potential to occur in the Project area, at various life stages, where the power line crosses over the Elk River, Martin Slough, and Ryan Slough. It is unlikely that special-status fish species regularly occur in Buhne Slough, due to the tidally restricted downstream entrance situated behind a single tide gate. Buhne Slough has no surface connectivity to occupied upstream habitats.

There would be no direct impacts to fish species that may occur in the Elk River, Martin Slough, or Ryan Slough (and associated tributaries) because the Project would avoid any in-water work within any stream, river, or slough channel. However, construction activities would occur in tidal wetlands abutting Buhne Slough. Ground-based construction activities in tidally influenced wetlands near Buhne slough would not occur during extreme high tide events that flood the construction work areas.

There could be potential indirect water quality impacts to fish and/or fish habitat if hazardous materials (e.g., oils and fuels), soil, or sediment from construction runoff are accidentally enter rivers or sloughs due to Project activities. Implementation of APM BIO-1 through APM BIO-4, APM BIO-5, and APM BIO-9, would require worker environmental awareness training, site protection and restoration of temporary impacts, biological monitoring and pre-construction surveys, as well as avoidance of wetlands to the maximum extent possible. In addition, PG&E would implement APM WQ-1 and APM WQ-2 (see Section 3.9; APMs cover development of a stormwater pollution prevention plan and worker environmental awareness); and APM HAZ-1 and APM HAZ-2 (see Section 3.8; APMs cover emergency response and worker environmental awareness); thus, any incidental sediment, runoff, and accidental releases would be avoided, minimized and treated, reducing potential indirect impacts on special-status fish species to a less-than-significant level with no mitigation required.

Reptiles and Amphibians

Northern red-legged frog has been documented in grasslands and wetlands within the Buhne, Martin, and Ryan slough floodplains. Western pond turtle has potential to occur in aquatic and adjacent upland habitats in the Project area, including Buhne Slough, Elk River, Martin Slough, and Ryan Slough. Southern torrent salamander has not been observed in the Project area but may be present in rocky streams, seeps, or springs within redwood or montane riparian habitats.

These species have the potential to occur in the wetland portions of the Project area. The Project would avoid any in-water work within a stream, river, or slough channel. Limited wetland and/or riparian vegetation would be removed or trimmed to provide construction equipment access. To avoid direct injury to or mortality of individual amphibians and reptiles, activities in wetland areas would generally occur in the dry season, when these species make fewer overland movements.

In addition, PG&E would implement APM BIO-8 to reduce impacts to amphibians and reptiles by providing escape routes and checking under equipment, and APM BIO-9 to reduce impacts to

wetlands by avoiding and minimizing work in these areas. PG&E would also implement APM-BIO-1 through APM BIO-5 which would reduce potential for direct impacts to breeding adults, eggs or nests, in adjacent grassland or forested habitats, by requiring worker environmental awareness training, site protection, biological monitoring and pre-construction surveys. These measures would also reduce impacts on individual frogs or salamanders that may travel incidentally into construction work areas.

Indirect impacts could occur if sediments or hazardous materials enter suitable habitat or if increased human presence disrupts normal foraging behaviors or movement during the breeding season. PG&E would implement APM BIO-1 and APM BIO-2, along with APM WQ-1, APM WQ-2, APM HAZ-1, and APM HAZ-2 to reduce the potential impairment of waterbodies from sediment or inadvertent release of hazardous materials that could affect salamander, turtle or frog habitat. With the implementation of these APMs, indirect impacts on reptiles and amphibians would be reduced to a less-than-significant level with no mitigation required.

Birds

Raptors and other migratory birds, including special-status species such as white-tailed kite, northern harrier, Vaux's swift, olive-sided flycatcher, and yellow warbler, may nest in or near the Project area. Nesting birds may be impacted if construction activities occur near active nests during the breeding season. Direct impacts may include destruction of a nest or loss of adults, young, or eggs during vegetation trimming or grading activities.

Birds nesting on towers may be impacted by modification to or removal of existing towers. Indirect impacts may include nest abandonment from construction-related noise and vibration (e.g., from heavy equipment, helicopters, vehicles, and generators) or degradation of foraging and nesting habitat through the removal of trees and shrubs.

Marbled murrelets are known to nest approximately five miles southeast of the Project area in critical habitat. Because this species relies on old-growth coniferous forest located close to marine waters for nesting habitat and travels to and from nesting sites to feed young, helicopter activity has the potential to disrupt daily feeding cycles, particularly during pre-dawn peak feeding and, to a lesser extent, sunset feeding. In order to avoid disruption of feeding behavior by construction activities in the Project area, APM BIO-12 would be implemented, which bars helicopter flights within two hours of sunrise and one hour of sunset, the peak feeding times for marbled murrelets (PG&E and Stillwater Sciences, 2019).

If construction activities are scheduled during the nesting season, a qualified biologist would conduct nest detection surveys and implement APM-BIO 6 to minimize direct and indirect impacts to nesting birds. As detailed in APM-BIO 6, the qualified biologist would establish a species-specific nest buffer to minimize impacts to nesting birds. PG&E would avoid direct impacts to identified active nests during vegetation removal or trimming. If active nests are sighted on existing poles that are planned for removal, removal of the pole would be postponed until after chicks have fledged. While other indirect impacts could include degradation of foraging and nesting habitat through the removal of trees and shrubs, these impacts are expected to be minimal as most work activities would occur in open habitat, in urban areas, or within

cleared rights of way. Vegetation removal would be limited to the amount needed to provide access for construction equipment pursuant to APM BIO-2, which provides for site protection and restoration of temporary impacts. APM BIO-3 through APM BIO-5, which provide for preconstruction surveys, marking of sensitive areas, and presence of a biological monitor, would further reduce impacts on raptors and/or migratory birds to a less-than-significant level with no mitigation needed.

Bats

Special-status Townsend's big-eared bats and pallid bats, along with other bat species, may roost in barns, old buildings, and bridges, or basal hollows of large trees. No direct impacts on bats roosting in structures would occur as the Project is not anticipated to remove any suitable roost buildings, barns, or bridges. However, trees providing suitable roost habitat may be removed.

Indirect impacts resulting from noise and vibration from Project construction activities occurring near bridges would be equivalent to the existing ambient noise and vibration from traffic. Additional temporary construction noise or vibration during the day associated with the Project would be temporary, intermittent, and of relatively short duration at any single work location. Implementation of a noise reduction measure (i.e., APM NOI-1) would further reduce the potential for noise-related disturbance on roosting bats and implementation of APM BIO-1 through APM BIO-5, which provide for worker environmental awareness, site protection and restoration of temporary impacts, preconstruction surveys, marking of sensitive areas and presence of a biological monitor, would further minimize disturbance to roosting bats and/or their habitat. Trees in the Project area may provide suitable roosting habitat for bats. The removal of trees could result in the loss of active bat maternity roosts of Townsend's big-eared bats or pallid bats, or other bat species, if present, which would be a significant impact. To avoid impacts to roosting bats in trees, **Mitigation Measure BIO-1** would provide for surveys of trees providing potential habitat for special-status bat species and a two-stage removal process. Implementation of this Mitigation Measure in addition to APMs NOI-1 and APMs BIO-1 through BIO-5 would reduce impacts on roosting bats, including Townsend's big-eared bat and pallid bat, to a less-than-significant level.

Mitigation Measure BIO-1: Pre-construction Bat Survey. A pre-construction survey for special-status bat (i.e., Townsend's big-eared bat [*Corynorhinus townsendii*] and pallid bat [*Antrozous pallidus*]) habitat shall be conducted by a qualified biologist (i.e., who is experienced in the identification of special-status bat habitat) in advance of any tree removal, to identify signs of potential bat habitat and use (e.g., basal hollows in large trees or snags, large cavities or crevices, spaces under loose/exfoliating tree bark, or deep bark fissures). Bat maternity colonies will be avoided during construction. Should potential roosting habitat, or active bat roosts be found in trees to be removed, the following measures shall be implemented:

- Tree removal shall occur outside of months of maternity roosting (approximately April 15 to August 15) and winter torpor (approximately October 31 to March 31), to the extent feasible.
- Trees with maternity roosts shall be avoided during the roosting period (April 15 to August 15). If pre-construction surveys identify suitable bat roosting habitat in a tree

planned for removal, a qualified biologist shall be present during tree removal. Trees shall be disturbed only when no rain is occurring or is not forecast to occur for three days and when daytime temperatures are at least 50 degrees Fahrenheit (°F).

- Trimming and removal of trees containing or suspected to contain roost sites shall be done under supervision of a qualified biologist and implemented over two days. On day one, branches and limbs not containing cavities or fissures in which bats could roost shall be cut using chainsaws. The following day, the remainder of the tree, including branches or limbs containing roost sites shall be removed under the supervision of the biologist, also using chainsaws.

Significance after Mitigation: Less than significant.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

Riparian habitat and other sensitive natural communities occur in the Project area. Other sensitive natural communities observed in the Project area include redwood forest, red fescue grassland, bigleaf maple forest, coastal dune and Sitka willow thickets, shining willow groves, Pacific silverweed marshes, slough sedge swards, small-fruited bulrush marsh, salt rush swales, coastal brambles, and pickleweed mats (Stillwater Sciences, 2019a).

Riparian Habitat

In riparian habitat, a thicket of willows around the existing poles near Humboldt Bay Substation would be removed to replace the wood poles with tubular steel poles; however, the area of potential impact to willow habitat is not known. In addition, mostly minor localized trimming of vegetation would occur. Implementation of APM BIO-2, which provides for restoration of temporary impacts, would restore areas temporarily disturbed by Project activities. However, the type and extent of restoration activities are not described in APM BIO-2. In order to ensure that riparian areas are adequately restored, **Mitigation Measure BIO-2** would be required to provide for habitat restoration and monitoring. With implementation of APM BIO-2 and Mitigation Measure BIO-2, impacts on riparian habitat would be reduced to a less-than-significant level.

Sensitive Natural Communities

Approximately 4.1 acres of sensitive natural communities may be temporarily affected by siting of pull and tensioning sites, staging areas, material laydown areas, crane pads, helicopter landing zones, and other construction work areas, as well as vegetation removal and trimming activities. The temporary impacts would affect less than 5 percent of special-status natural community areas in the Project area. Approximately 0.005 acres (218 square feet) of sensitive natural communities would be permanently impacted by the Project, in redwood, shining willow, and salt rush swales.

Implementation of APM BIO-1 through APM BIO-5, which include worker environmental awareness; site protection and restoration of temporary impacts; preconstruction surveys; avoidance of sensitive areas; and biological monitoring would minimize the potential for impacts; however, the APMs do not fully detail the habitat restoration requirements for the proposed

restoration effort. With further implementation of Mitigation Measure BIO-2 for restoration, impacts on special-status natural communities would be reduced to a less-than-significant level.

Mitigation Measure BIO-2: Habitat Restoration Plan. A qualified ecologist shall prepare and implement a restoration plan with detailed specifications for restoring all temporarily disturbed sensitive natural communities. The plan shall provide for the following:

- Pre-construction surveys by a qualified biologist of representative impact areas to characterize vegetation present.
- Use of locally native, ecologically suitable species for revegetation.
- Sanitation measures (e.g., locally sourced cuttings, elimination of container stock, or exclusive use of container plants grown according to plant pathogen best management practices) to prevent the introduction and/or spread of sudden oak death, other plant pathogens, and invasive plants during revegetation.
- Monitoring by a qualified biologist up to a period of five years unless performance standards are met earlier, or as specified by state and federal permitting agencies.
- Include minimum performance criteria for combined native and naturalized plant cover (50 percent, or equal to or greater than baseline within the monitoring period, or as specified by state and federal permitting agencies); and for maximum invasive plant cover (to return the project back to baseline conditions, or as specified by state and federal permitting agencies).

Significance after Mitigation: Less than significant.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means: *LESS THAN SIGNIFICANT IMPACT.*

Approximately 90 acres of wetlands and 4 acres of other waters are present in the Project area. All potentially jurisdictional waters and wetlands of the United States in the Project area are described in the wetland delineation report (Stillwater Sciences, 2019b). A large portion of the existing alignment is currently situated in wetlands; thus, in order to maintain the existing line, unavoidable impacts to wetlands would occur. The Project has been designed to minimize all direct impacts to open water habitat (i.e., waters of the U.S.) and would not result in the hydrologic interruption to waterways.

Permanent Direct Impacts

Project construction activities may result in up to approximately 492 square feet (0.01 acre) of permanent direct impacts to wetlands within the coastal zone, depending on the final design for the four concrete tower foundation footings for each new lattice steel tower. Permanent impacts would be reduced by the permanent removal of approximately 14 wood poles from wetland areas, which would reduce the number of structures requiring maintenance.

Utility operation and maintenance practices would be limited, allowing surrounding areas not directly affected by tower footings to continue to provide habitat after Project implementation. As a

result, the Project's installation would not result in habitat fragmentation, local loss of breeding habitat, or hydrologic disruption. Based on the final (post-construction) permitted extent of impacts, PG&E would provide compensation for permanent impacts according to relevant permit conditions in consultation with the respective regulatory agencies and in accordance with APM BIO-11.

Temporary Direct Impacts

Project construction activities may result in up to approximately 15.5 acres of temporary impacts to wetlands within the coastal zone, and an additional 0.46 acre outside of the coastal zone. Impacts would be due to short-term disturbances from temporary overland access and construction work areas located within wetland features. Reconductoring and pole and tower installation activities in wetland areas would generally occur in the dry season (as indicated in APM BIO-9). If wet season construction is required because of line clearance or safety requirements, PG&E would use temporary matting or other protection measure (e.g., rig mats, timber roads, plating, or tracked vehicles [preferably rubber tracked]) to minimize temporary impacts and ground disturbance (APM BIO-9). Temporary impacts to wetlands typically would not involve grading, but involve surface disturbance from driving and staging equipment. Construction activities would occur for a relatively short duration (from a few days to approximately one month at each location) and be limited to defined work spaces. PG&E would restore temporarily disturbed wetland areas, per APM BIO-10, post construction.

In addition, the following construction techniques have been incorporated into the Project description and APMs to reduce impacts on wetlands:

- Helicopters would be used to perform pole installation and removal in the most sensitive biological resource areas, where feasible and safe, to minimize wetland impacts.
- Lattice steel towers would be installed in certain areas using the micropiling technique to minimize the area of wetland disturbance.
- Reconductoring work and structure installation in wetland areas would generally occur in the dry season to minimize direct and indirect impacts on wetland features (see APM BIO-9).
- Where travel across seasonal wetlands, seasonal drainages, or other areas with wet surface conditions is necessary to access construction work areas, temporary matting (e.g. rig mats or timber roads) would be used to limit soil compaction and mixing (see APM BIO-9).

Where the existing Humboldt Bay-Humboldt #1 60 kV line parallels the Humboldt Bay-Eureka 60 kV line, PG&E would transfer both lines onto shared towers for a distance of approximately 0.6-mile to reduce the footprint of the transmission system in wetland areas. Approximately 14 existing wood poles currently located within a wetland associated with Buhne Slough would be permanently removed.

During construction, a qualified biologist would routinely document and update the actual acreages of permanent and temporary wetland impacts during the Project. Impacts on wetlands would be reduced through the implementation of the following measures to avoid and minimize impacts: APM BIO-1 through APM BIO-5 (which provide for worker environmental awareness; site protection and restoration of temporary impacts; preconstruction surveys; avoidance of sensitive areas; and biological monitoring) and APM BIO-9 (limiting impact of construction on

wetlands). In addition, PG&E would restore all temporarily impacted wetland areas pursuant to APM BIO-10 and compensate for permanently impacted wetlands, per APM BIO-11. Finally, APM WQ-1, APM WQ-2, APM HAZ-1, and APM HAZ-2 which include implementation of a stormwater pollution prevention plan, hazardous substance control and emergency response procedures, and other measures to protect water quality during construction would be implemented. Collectively, these APMs would reduce impacts on wetlands to a less-than-significant level with no mitigation required.

Mitigation: None required.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites: *LESS THAN SIGNIFICANT IMPACT.*

Wildlife corridors in the Project area consist of creeks, drainages, agricultural fields and ditches, wetlands and riparian habitat. Construction activities would occur within an existing utility alignment for a relatively short duration (between a few days to up to a few weeks at each location), and would occupy relatively small areas for staging, construction, and access. Terrestrial animals would be able to move around these temporary construction work areas outside of working hours. No in-water work would take place in any streams, creeks, or sloughs. Thus, fish and other aquatic wildlife would not be impeded. The Project would not include construction that could obstruct wildlife movement in the long term. Therefore, the Project would have a less than significant impact on wildlife and fish movement corridors.

Mitigation: None required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance: *NO IMPACT.*

As described above, Humboldt County identifies special protections for Streamside Management Areas (SMAs) by local ordinance. While local ordinances do not apply to this Project, which is under the exclusive jurisdiction of the CPUC, a description of the SMA protections is included here for purposes of facilitating CEQA significance analysis.

Initial estimates for the Project indicate that approximately 20 trees ranging between 4 to 16 inches in diameter at breast height would need to be removed, and an additional approximately 24 trees would be trimmed. Tree species to be removed include Bishop pine (*Pinus muricata*), red alder (*Alnus rubra*), elderberry (*Sambucus* spp.), redwood (*Sequoia sempervirens*), and maple (*Acer* spp.). Local protections for trees outside of Humboldt County's local coastal plan are limited to tree removal in SMAs; SMAs in the Project area include upper Martin Slough and the headwaters of Martin Slough near the town of Cutten. The Project's design does not include tree removal in SMAs. Thus, the Project is compatible with Humboldt County's Streamside Management Area Ordinance.

The APMs for the Project would also minimize or avoid potential adverse effects on wetlands, aquatic habitats, and habitat for special-status species, reducing these impacts to a less-than-

significant levels, consistent with the goals and policies in the Humboldt County General Plan. Thus, the Project would not conflict with any local policies or ordinances protecting biological resources. Therefore, there would be no impact.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan: *NO IMPACT*.

While the Project area crosses the plan area for the Green Diamond Resource Company's Northern Spotted Owl HCP, construction of the Project is not covered by this HCP and would not occur in special management areas established by the HCP. There are currently no other adopted HCPs, Natural Community Conservation Plans, or other approved conservation plans in the Project area. Thus, the Project would not conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state plan. Therefore, there would be no impact.

3.4.5 References

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3.5 Cultural Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
5. CULTURAL RESOURCES — Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.5.1 Environmental Setting

This section examines the potential impacts of the proposed Project on cultural resources. Tribal cultural resources are discussed separately in Section 3.18. For purposes of this analysis, the term *cultural resource* is defined as follows:

Indigenous and historic-era sites, structures, districts, and landscapes, or other evidence associated with human activity considered important to a culture, a subculture, or a community for scientific, traditional, religious, or other reason. These resources include the following types of CEQA-defined resources: historical resources, archaeological resources, and human remains.

The term *indigenous*, rather than *prehistoric*, is used in this section as a synonym for “Native American–related” (except when quoting or from excerpts), while *pre-contact* is used as a chronological adjective to refer to the period before Euroamerican arrival in the subject area. “Indigenous” and “pre-contact” are often, but not always, synonymous: the former term refers to a cultural affiliation and the latter is chronological.

This section relies on the information and findings presented in the following technical reports:

- *Cultural Resources Inventory, Survey, and Evaluation Report for the Humboldt Bay-Humboldt #1 60 kV Reconductoring Project Humboldt County, California* (Quercus Consultants, Inc., 2019).
- *National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) Inventory and Evaluation: Humboldt Bay-Humboldt #1 60 kV, Humboldt Bay-Humboldt #1 115 kV, Humboldt Bay-Humboldt #2 60 kV, and Humboldt Bay-Eureka 60 kV Transmission Lines Humboldt County, California* (Allen and Walker, 2018).

The technical reports present additional details on background context, Native American correspondence, and cultural resources identified. The CPUC and its environmental consultant independently reviewed the technical reports and found them to be suitable for reliance in combination with independent professional expertise to inform this analysis of potential environmental impacts of the Project.

Key Terms

This section uses the following key terms:

Architectural Resource

This resource type includes historic-era buildings, structures (e.g., bridges, canals, roads, utility lines, railroads), objects (e.g., monuments, boundary markers), and districts. Residences, cabins, barns, lighthouses, military-related features, industrial buildings, and bridges are some examples of architectural resources.

Archaeological Resource

This resource type consists of both indigenous or pre-contact, and historic-era archaeological resources:

- Indigenous archaeological resources consist of village sites, temporary camps, lithic scatters, roasting pits/hearths, milling features, petroglyphs, rock features, and burials. Associated artifacts include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (midden) containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs).
- Historic-era archaeological resources consist of town sites, homesteads, agricultural or ranching features, mining-related features, refuse concentrations, and features or artifacts associated with early military and industrial land uses. Associated artifacts include stone, concrete, or adobe footings and walls; artifact-filled wells or privies; and deposits of metal, glass, and/or ceramic refuse.

If a resource is considered a ruin (e.g., building lacking structural elements, structure lacking historic configuration), it is classified as an archaeological resource.

CEQA Area of Potential Effects

For purposes of this analysis, the CEQA Area of Potential Effects (C-APE) is defined as both the horizontal and vertical maximum extents of potential direct impacts of the proposed Project on cultural resources. This area encompasses the footprint of Project actions, including staging and access areas. The C-APE comprises approximately 77.2 acres, and extends vertically to the maximum depth of the proposed Project's ground-disturbing activities, varying according to specific location:

- Wood pole installation/replacement: 11 feet
- Light duty steel pole installation/replacement: 14 feet
- Tubular steel pole installation/replacement: 30 feet
- Lattice steel tower installation/replacement: 60 feet (micropile), 30 feet (drilled)
- Guard structure installation/removal: 7 feet
- Snub pole installation/removal: 10 feet

- Vegetation and tree removal: 2 feet
- Pull sites: 0.5 foot
- Staging and access routes: 0.5 foot
- Helicopter landing zones: 0.5 foot

Because the existing transmission lines and towers are in proximity to those proposed by the Project, and also similar in construction, a single C-APE has been defined to account for impacts on archaeological and architectural resources.

Existing Cultural Environment

Records Search

In March 2012 and in September 2017, cultural resources records searches for the C-APE and vicinity were conducted at the North Coast Information Center (NCIC) and Northwest Information Center (NWIC), respectively. The study area for the records searches consisted of the C-APE with a 0.25-mile buffer. The purpose of the records searches was to: (1) determine whether known cultural resources have previously been recorded in or adjacent to the C-APE; (2) assess the likelihood for unrecorded cultural resources to be present based on historical references and the distribution of nearby resources; and (3) develop a context for the identification and preliminary evaluation of cultural resources. The records searches consisted of an examination of the following documents:

- NCIC and NWIC base maps: *Arcata South, CA*; *Eureka, CA*; *Fields Landing, CA*
- Resource Inventories: *National Register of Historic Places-Listed Properties and Determined Eligible Properties (2012)*, *California Register of Historical Resources (2012)*, *California Points of Historical Interest (2012)*, *California Inventory of Historical Resources (1976)*, *California Historical Landmarks (2012)*, *Historic Properties Directory (Humboldt County, 2012)*, *Archaeological Determinations of Eligibility (Humboldt County, 2012)*, *Caltrans Historic Bridge Inventory (Humboldt County, 2018)*.

The California Historical Resources Information System (CHRIS) has records of 20 previous cultural resources studies that included portions of the C-APE. CHRIS records identified 20 previously recorded historic-era resources in the records search area, three of which are in the C-APE: P-12-001987 (McKay & Company Ryan Creek Railroad), P-12-002061 (Bucksport & Elk River Railroad Grade), and P-12-003225 (5625 Elk River Road Agricultural Complex). All four of the historic-era resources previously recorded in the C-APE are architectural resources, none of which have identified archaeological components. CHRIS has no record of any previously recorded pre-contact cultural resources in the C-APE. **Table 3.5-1** summarizes the cultural resources previously recorded in the C-APE.

**TABLE 3.5-1
CULTURAL RESOURCES PREVIOUSLY RECORDED IN C-APE**

Primary (P-12-)	Trinomial (CA-HUM-)	Type	Age/ Affiliation	Name/ Description	Recorder (Year)
001987	[none]	Structure	Historic	McKay & Company Ryan Creek Railroad	Templeton (2002, 2005)
002061	1313H	Structure	Historic	Bucksport & Elk River Railroad Grade	Griesbach (2007); Browning (2010); Distefano (2012)
003225	[none]	Site	Historic	5625 Elk River Road Agricultural Complex	Hildebrandt and Garvey (2014)

Archival Research

Archival research for the Project was carried out in May and June 2012. Research methodology focused on review of primary and secondary sources relating to the history and development of the C-APE. Sources included, but were not limited to, historic maps, aerial photographs, and written histories of the area. The following repositories, publications, and individuals were contacted to identify known historical land uses and the locations of research materials pertinent to the C-APE: City of Eureka; County of Humboldt; PG&E Archives; Humboldt State University, Humboldt Room; Eureka Main Library, Humboldt Room; aerial photographs; and U.S. Geological Survey (USGS) maps.

Buried Site Sensitivity Analysis

The following text is excerpted from Quercus Consultants, Inc. (2019).

Landforms that pre-date the Holocene have little or no potential to contain buried sites because there were few, if any, people yet present in the region. Previous studies have shown that known prehistoric sites tend to be located within 200 meters (656 feet) or less of a known stream or other water source. Conversely, most Holocene-age depositional landforms (e.g., alluvial fans and floodplains) have a general “geologic potential” to contain buried sites, as they were formed after the arrival and occupation of the region by prehistoric people. Thus, Holocene-age terrestrial deposits located within 200 meters of a historic-era bay or stream are considered to have an elevated (i.e., high) potential to contain buried sites (Meyer et al., 2011).

Based on review of geologic maps (McLaughlin et al., n.d.) coupled with refined and established archaeological sensitivity models (Meyer et al., 2011), the [C-APE] is situated generally on a landform identified as Latest Pleistocene to Holocene stream terrace deposits and a small pocket of Quaternary alluvium along the Elk River and Martin Slough. Latest Pleistocene to Holocene stream terrace deposits are considered to contain a low to moderate sensitivity for containing cultural deposits if the locations meet the criteria of being within 200 meters of a historical water source. That sensitivity is reduced to low if a location is farther than 200 meters from a historical water source. Latest Pleistocene to Holocene stream terrace deposits are generally not considered highly sensitive given the dearth of archaeological sites that have been identified from this time period. Additionally, while Quaternary alluvium adjacent to historical sources of water is considered highly sensitive for the presence of buried archaeological deposits, the limited excavation footprint associated with the [P]roject and the fact that only a handful of pole replacement locations are situated

on a Quaternary landform identified as being within 200 meters of a historical source of water minimizes the potential for encountering a buried deposit to moderate or low.

Native American Correspondence

In May 2012, December 2017, and April 2019, the Native American Heritage Commission (NAHC) provided the results of requests for Sacred Lands File (SLF) searches and contact lists of Native American representatives potentially interested in the proposed Project. The 2012 and 2019 SLF search results were negative for cultural resources in the C-APE, though the 2017 results stated that the SLF has record of cultural resources in the C-APE and that the Wiyot Tribe should be contacted for information on the sites.

On May 16, 2012, and in January 2018, PG&E sent informational letters and/or emails to each of the Native American representatives whose contact information was provided in the 2012 and 2017 NAHC correspondence. These letters provided information on the proposed Project and solicited input from the recipients. Tribal groups were contacted by phone or regular mail in cases where an email address was not included in the NAHC correspondence. When no response was received, within a few weeks PG&E made follow-up phone calls.

Mr. Ted Hernandez, a representative of the Wiyot Tribe, was coordinated with extensively to address the cultural site identified by the NAHC in the C-APE (AS-1). At the tribe's request, a representative of the Wiyot Tribe was present on December 8, 2017, when Browning Cultural Resources, Inc. performed an archaeological subsurface survey of AS-1 (Browning Cultural Resources, Inc., 2017). The subsurface survey established that AS-1 is a non-cultural shell deposit. At the conclusion of the coordination, Mr. Hernandez determined that the Wiyot Tribe did not have any concerns regarding the proposed Project. Ms. Janet Eidsness, a representative of the Blue Lake Rancheria deferred to Ms. Erika Collins, Bear River Band of Rohnerville Rancheria Tribal Historic Preservation Officer, and Mr. Hernandez regarding the proposed Project and any potential concerns. No other tribal representative expressed concerns regarding the proposed Project.

On May 2, 2019, the CPUC sent letters, via certified mail, to those Native American representatives whose contact information was provided in the April 2019 NAHC correspondence regarding the proposed Project. The letters provided information on the proposed Project and solicited input from the recipients. The only replies to these letters was from Ms. Eidsness, who requested information on the proposed Project and any Native American outreach that had been conducted for it. Additional correspondence regarding the proposed Project occurred between the CPUC and Ms. Eidsness, who stated that the Blue Lake Rancheria does not have any concerns regarding the proposed Project. Additionally, correspondence occurred between the CPUC and Mr. Hernandez, who stated that the Wiyot Tribe does not have any concerns regarding the proposed Project. Finally, correspondence occurred between the CPUC and Mr. Garth Sundberg, Chairperson of the Cher-Ae Heights Indian Community of the Trinidad Rancheria, who stated that the proposed Project is outside of the tribe's area of concern and that the tribe does not have any concerns regarding the proposed Project.

Appendix E provides documentation of the proposed Project correspondence with Native American representatives to date.

Other Correspondence

In 2012, SWCA, a PG&E consultant, conducted outreach to local historical groups and local governments. The following groups were contacted by letter and phone: City of Eureka; Clarke Historical Museum; County of Humboldt, Community Development, Planning Division; Eureka Heritage Society; Ferndale Museum; Historical Society of Arcata; Humboldt Bay Maritime Museum; and Humboldt County Historical Society.

Responses were received, either through letters, voicemails, or phone conversations, from the City of Eureka, Clarke Historical Museum, County of Humboldt, and Ferndale Museum; all of these groups stated that they did not have any concerns regarding the proposed Project. No other responses to such outreach for the proposed Project has been received as of the publication of this analysis.

Field Survey

A cultural resources pedestrian survey was conducted for the C-APE from May 21 to June 1, 2012, on July 2, 2012, from November 7 to 9, 2017, from September 24 to 26, 2018, and on October 11, 2018. Intensive pedestrian survey methods were used, consisting of walking parallel transects spaced at no more than 15 meters apart and inspecting the surface for cultural material (archaeological or architectural) or evidence thereof.

During the pedestrian survey, nine cultural resources were identified in the C-APE. Three of these (P-12-001987, P-12-002061, P-12-003225) are previously recorded historic-era architectural resources. The remaining six are newly recorded historic-era resources. Five of these are architectural resources: Humboldt Bay-Humboldt #1 60 kV Line (electrical transmission line); Humboldt #1 115 kV Line/Humboldt #2 60kV Line (electrical transmission line); Humboldt Bay-Eureka 60 kV Line (electrical transmission line); Redwood Acres (fairgrounds); and Northwestern Pacific Railroad Spur (railroad). The other resource, the Spiegelberg Homestead (homestead), has both an architectural component (barn and tree windbreak) and an archaeological component (low-density artifact concentration). None of the cultural resources identified in the C-APE had been previously evaluated for eligibility for listing in the California Register of Historical Resources (California Register).

Also, during the 2012 pedestrian survey, a shell deposit designated AS-1 was identified in the C-APE. As indicated earlier, on December 8, 2017, a subsurface survey was conducted at AS-1. Subsurface survey methods consisted of conducting surface scrapes, measuring 1 by 1 foot, and excavating a series of auger units, measuring 4 inches in diameter and excavated in 20-centimeter levels to up to 200 centimeters below surface. Sediment excavated in the auger units was screened through quarter-inch wire mesh screen. A Wiyot Tribe representative was present during the subsurface survey fieldwork. The subsurface survey determined that AS-1 is a non-cultural shell deposit and, therefore, is not an archaeological resource.

Allen and Walker (2018) evaluated the California Register-eligibility of the three historic-era electrical transmission lines identified in the C-APE, recommending all three as not eligible for listing in the California Register. Quercus Consultants, Inc. (2019) evaluated the California

Register-eligibility of the six other cultural resources identified in the C-APE (P-12-001987, P-12-002061, P-12-003225, Redwood Acres, Northwestern Pacific Railroad Spur, Spiegelberg Homestead), recommending all but the Spiegelberg Homestead as not eligible for listing in the California Register. Regarding the Spiegelberg Homestead, Quercus Consultants, Inc. concluded that its architectural component did not contribute to any potential California Register-eligibility, but that additional archaeological investigations would be needed to determine whether the resource's archaeological component had potential California Register-eligibility, and, therefore, the resource should be assumed California Register-eligible with only its archaeological component contributing to such eligibility. Though an element of the architectural component (windbreak) of the resource is within the C-APE, the archaeological component is not.

Summary

Through archival research, records searches, correspondence with Native American representatives and local agencies and groups, a cultural resources pedestrian survey, and a subsurface survey, nine cultural resources, all historic-era, were identified in the C-APE. Allen and Walker (2018) recommended three of these resources (Humboldt Bay-Humboldt #1 60 kV Line, Humboldt #1 115kV Line/Humboldt #2 60kV Line, Humboldt Bay-Eureka 60 kV Line) not eligible for listing in the California Register. Quercus Consultants, Inc. recommended five of these resource (P-12-001987, P-12-002061, P-12-003225, Redwood Acres, Northwestern Pacific Railroad Spur) as not eligible for listing in the California Register. As a result, eight of the cultural resources identified in the C-APE (Humboldt Bay-Humboldt #1 60 kV Line, Humboldt #1 115kV Line/Humboldt #2 60kV Line, Humboldt Bay-Eureka 60 kV Line, P-12-001987, P-12-002061, P-12-003225, Redwood Acres, Northwestern Pacific Railroad Spur) do not qualify as historical resources (or unique archaeological resources), pursuant to CEQA.

Quercus Consultants, Inc. concluded that one of the cultural resources identified in the C-APE, the Spiegelberg Homestead, has an architectural component that does not contribute to any potential California Register-eligibility and an archaeological component that could contribute to potential California Register-eligibility, and, therefore, the resource should be assumed California Register-eligible with only its archaeological component contributing to such eligibility. As a result, the Spiegelberg Homestead is considered an historical resource pursuant to CEQA, though only its archaeological component contributes to its significance. However, the archaeological component of the Spiegelberg Homestead is adjacent to, but not within, the C-APE.

3.5.2 Regulatory Setting

State

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the State and is codified at Public Resources Code Section 21000 et seq. CEQA requires lead agencies to determine if a proposed project would have a significant effect on the environment, including significant effects on historical or unique archaeological or paleontological resources. Under CEQA

(Pub. Res. Code §21084.1), a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

The State implements provisions in CEQA through its statewide comprehensive cultural resources surveys and preservation programs. The California Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation, oversees adherence to CEQA regulations. The OHP also maintains the California Historic Resource Inventory. The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the State's jurisdiction. Typically, a resource must be more than 50 years old to be considered as a potential historical resource. The OHP advises recordation of any resource 45 years or older, since there is commonly a five-year lag between resource identification and the date that planning decisions are made.

Historical Resources

The CEQA Guidelines recognize that an historical resource includes: (1) a resource in the California Register; (2) a resource included in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k) or identified as significant in an historical resource survey meeting the requirements of Public Resources Code Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript, which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

If a lead agency determines that an archaeological site is an historical resource, the provisions of Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5 apply. If an archaeological site does not meet the criteria for an historical resource contained in the CEQA Guidelines, then the site may be treated in accordance with the provisions of Public Resources Code Section 21083, pertaining to unique archaeological resources.

Unique Archaeological Resources

As defined in Public Resources Code Section 21083.2, a "unique archaeological resource" is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- has a special and particular quality such as being the oldest of its type or the best available example of its type; or,
- is directly associated with a scientifically recognized important prehistoric or historic event or person.

The CEQA Guidelines note that if an archaeological resource is not a unique archaeological resource or historical resource, the effects of the project on those cultural resources shall not be considered a significant effect on the environment (CEQA Guidelines Section 15064.5[c][4]).

Tribal Cultural Resources

Assembly Bill (AB) 52, enacted in September 2014, recognizes that California Native American Tribes have expertise with regards to their tribal history and practices. The bill established a new category of cultural resources known as tribal cultural resources to consider tribal cultural values when determining impacts on cultural resources (Pub. Res. Code §§21080.3.1, 21084.2, 21084.3). Public Resources Code Section 21074(a) defines a tribal cultural resource as any of the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either of the following:
 - included or determined to be eligible for inclusion in the California Register; or
 - included in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k).
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). In applying these criteria, the lead agency would consider the significance of the resource to a California Native American Tribe.

A cultural landscape that meets the criteria of Public Resources Code Section 21074(a) is also a tribal cultural resource if the landscape is geographically defined in terms of the size and scope. Also, an historical resource as described in Public Resources Code Section 21084.1, a unique archaeological resource as defined in Public Resources Code Section 21083.2, or a non-unique archaeological resource as defined in Public Resources Code Section 21083.2, may also be a tribal cultural resource if it meets the criteria of Public Resources Code Section 21074(a).

AB 52 requires lead agencies to analyze project impacts on tribal cultural resources, separately from archaeological resources (Pub. Res. Code §§21074, 21083.09), in recognition that archaeological resources have cultural values beyond their ability to yield data important to prehistory or history. AB 52 also defines tribal cultural resources in Public Resources Code Section 21074 (see above), and requires lead agencies to engage in additional consultation procedures with respect to California Native American Tribes (Pub. Res. Code §§21080.3.1, 21080.3.2, 21082.3).

California Register of Historical Resources

The California Register is “an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change” (Pub. Res. Code §5024.1[a]). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register of Historic Places (National Register).

To be eligible for the California Register, a cultural resource must be significant at the local, State, and/or federal level under one or more of the following four criteria (Pub. Res. Code §5024.1[c]):

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

A resource eligible for the California Register must be of sufficient age, and retain enough of its historic character or appearance (integrity) to convey the reason for its significance. Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed in the National Register and those formally Determined Eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward; and
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion in the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5 (those properties identified as eligible for listing in the National Register, the California Register, and/or a local jurisdiction register);
- Individual historic resources;
- Historic resources contributing to historic districts; and
- Historic resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

California Public Resources Code Sections 5097

Public Resources Code Section 5097.99, as amended, states that no person shall obtain or possess any Native American artifacts or human remains that are taken from a Native American grave or cairn. Any person who knowingly or willfully obtains or possesses any Native American artifacts or human remains is guilty of a felony, which is punishable by imprisonment. Any person who removes, without authority of law, any such items with an intent to sell or dissect or with malice or wantonness is also guilty of a felony which is punishable by imprisonment.

California Native American Historic Resource Protection Act

The California Native American Historic Resources Protection Act of 2002 imposes civil penalties, including imprisonment and fines up to \$50,000 per violation, for persons who unlawfully and maliciously excavates upon, removes, destroys, injures, or defaces a Native American historic, cultural, or sacred site that is listed or may be listed in the California Register.

California Health and Safety Code Section 7050.5

Section 7050.5 of the California Health and Safety Code protects human remains by prohibiting the disinterring, disturbing, or removing of human remains from any location other than a dedicated cemetery. Public Resources Code Section 5097.98 (and reiterated in CEQA Guidelines Section 15064.59[e]) also identifies steps to follow in the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery.

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction.” There are no local regulations applicable to the Project related to cultural resources.

3.5.3 Applicant Proposed Measures

The following measures pertaining to cultural resources have been proposed by PG&E and would be implemented as part of the proposed Project.

APM CUL-1: Workers Environmental Awareness Training. PG&E will provide environmental awareness training on archaeological resources protection. This training may be administered by the principal cultural resource specialist (CRS) as a stand-alone training or included as part of the overall environmental awareness training as required by the project and will at minimum include: types of cultural resources or fossils that could occur at the project site; types of soils or lithologies in which the cultural resources could be preserved; procedures that should be followed in the event of a cultural resource or human remain discovery; and penalties for disturbing cultural resources.

APM CUL-2: Flag and Avoid Resources (Spiegelberg Homestead Archaeological Deposit). The archaeological deposit at the Spiegelberg Homestead is not in the PAL, but adjacent to it. There are no roadway or land improvements proposed in this location as use of this area is limited to access to a landing zone. Additionally, no pole replacements or installations are proposed at this location. However, to ensure no inadvertent impacts occur to this resource, a qualified archaeologist will establish exclusion flagging or safety fencing around the archaeological site.

If it is determined that construction equipment must utilize this area for access, no grading or blading or other form of ground disturbance will be permitted within this area, and surface impacts to the resource will be avoided by way of installation of temporary protection such as matting.

Although unlikely, if it is determined that the project cannot avoid impacts within the area using the protection methods identified above, additional analysis and coordination with the CPUC will be required.

APM CUL-3: Manage Unanticipated Cultural Resources Discoveries.

a) Cultural Resources

If cultural resources 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 PG&E CRS/archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with PG&E and other appropriate agencies. Work may continue on other portions of the site with the CRS/archaeologist's approval. PG&E will implement the CRS/archaeologist's recommendations for treatment of discovered cultural resources.

b) Human Remains

In keeping with the provisions provided in 7050.5 CHSC and Public Resource Code 5097.98, in the unlikely event that human remains or suspected human remains are encountered during any project-related activity, PG&E will:

- Stop all work within 100 feet;
- Immediately contact the CRS, who will then notify the county coroner and the CPUC;
- Secure the location, but do not touch or remove remains and associated artifacts;
- Do not remove associated spoils or pick through them;
- Record the location and keep notes of all calls and events; and
- Treat the find as confidential and do not publicly disclose the location.

If the coroner determines that the remains are Native American, California Health and Safety Code 7050.5 and PRC Section 5097.98 require that the PG&E CRS contact the NAHC within 24 hours. The NAHC, as required by PRC Section 5097.98, will determine and notify the Most Likely Descendant.

APM CUL-4: Undiscovered Potential Tribal Cultural Resources. The following procedure shall be employed (after stopping work and following the procedure for determining eligibility in APM CUL-3) if a resource is encountered and determined by the project's qualified archaeologist to be potentially eligible for the California Register or a local register of historic resources and is associated with a California Native American Tribe(s) with a traditional and cultural affiliation with the geographic area of the proposed project:

1. The CRS shall notify the CPUC for appropriate action. PG&E will assist the CPUC if needed to identify the lead contact person for the California Native American Tribe(s) potentially associated with the cultural resource and with a traditional and cultural affiliation with the geographic area of the proposed project. The CPUC will contact the lead contact person to set up a meeting with PG&E and the CPUC.

2. The CRS shall participate with the CPUC in discussions with the California Native American Tribe(s) to determine whether the resource is a “tribal cultural resource” as defined by PRC Section 21074 and the tribe(s)’ preferred method of mitigation, if the resource is determined to be a tribal cultural resource.

If no agreement can be reached for mitigation after discussions with the California Native American Tribe(s) or it is determined that the tribe(s)’ preferred mitigation is not feasible, PG&E will implement one of the example mitigation measures listed in PRC Section 21084.3(b), or other feasible mitigation.

3.5.4 Environmental Impacts

Approach to Analysis

Historical Resources

Impacts to historical resources are assessed by identifying any activities such as new construction, demolition, or substantial alteration that would affect resources that have been identified as historical. Individual resources and districts identified as historical resources under CEQA include those that are significant because of their association with important events, people, or architectural styles or master architects, or for their informational value (California Register Criteria 1, 2, 3, and 4) and that retain sufficient historic integrity to convey their significance. Criterion 4 is typically applied to the evaluation of archaeological resources and not to architectural resources. Historical resources may include architectural resources and archaeological resources.

Once a resource has been identified as significant, it must be determined whether the impacts of the project would “cause a substantial adverse change in the significance” of the resource (CEQA Guidelines Section 15064.5[b]). A substantial adverse change in the significance of an historical resource means “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of [the] historical resource would be materially impaired” (CEQA Guidelines Section 15064.5[b][1]). An historical resource is materially impaired through the demolition or alteration of the resource’s physical characteristics that convey its historical significance and that justify its inclusion in (or eligibility for inclusion in) the California Register or a qualified local register (CEQA Guidelines Section 15064.5[b][2]). Therefore, material impairment of historical resources constitutes a significant impact.

The impact analysis below discusses impacts to historical resources, under the first impacts question, as those impacts to only historic-era architectural resources, including buildings, structures, and objects.

Archaeological Resources

The significance of most pre-contact and historic-era archaeological sites is typically assessed under California Register Criterion 4. This criterion stresses the importance of the information potential contained within a site, rather than its significance as a surviving example of a type or its association with an important person or event. Archaeological resources may qualify as historical resources under the definition provided in CEQA Guidelines Section 15064.5(a).

Alternatively, they may be assessed under CEQA as unique archaeological resources. “Unique archaeological resources” are defined as archaeological artifacts, objects, or sites that contain information needed to answer important scientific research questions (Pub. Res. Code §21083.2).

A substantial adverse change in the significance of an archaeological resource is assessed similarly to other historical resources; that is, a “substantial adverse change” in significance means “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings occurs such that the significance of [the] historical resource would be materially impaired (CEQA Guidelines Section 15064.5[b][1]). As stated previously, an historical resource is materially impaired through the demolition or alteration of the resource’s physical characteristics that convey its historical significance and that justify its inclusion in (or eligibility for inclusion in) the California Register or a qualified local register (CEQA Guidelines Section 15064.5[b][2]). Therefore, material impairment of archaeological resources that are considered historical resources or unique archaeological resources would be a significant impact.

The impact analysis below discusses archaeological resources, both as historical resources, according to CEQA Guidelines Section 15064.5, as well as unique archaeological resources, as defined in Public Resources Code Section 21083.2(g), under the second impacts question.

Human Remains

Human remains, including those buried outside of formal cemeteries, are protected under several State laws, including Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5. For the purposes of this analysis, intentional disturbance, mutilation, or removal of interred human remains would be a significant impact.

Discussion

a) Whether the Project would cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5: *NO IMPACT.*

Through archival research, records searches, correspondence with local agencies and groups, and a cultural resources pedestrian survey, nine historic-era architectural resources were identified in the C-APE:

- P-12-001987 (McKay & Company Ryan Creek Railroad) – Approximately 7-mile-long railroad, no longer exists.
- P-12-002061 (Bucksport & Elk River Railroad Grade) – Approximately 0.5-mile-long segment railroad grade.
- P-12-003225 (5625 Elk River Road Agricultural Complex) – Barn, three ancillary features (1930s dairy), and fencing.
- Humboldt Bay-Humboldt #1 60 kV Line – 8.4-mile-long 1955 electrical transmission line with wood and steel poles.
- Humboldt #1 115kV Line/Humboldt #2 60kV Line – 6.5-mile-long 1955 electrical transmission line with steel towers.

- Humboldt Bay-Eureka 60 kV Line – 5.5-mile-long 1958 electrical transmission line with wood poles.
- Northwestern Pacific Railroad Spur – approximately 0.5-mile-long segment of railroad track.
- Redwood Acres – 40-acre fairground, dating to 1938, with grand stand, bicycle motocross track, baseball field, baseball batting cages, horse-boarding stalls and riding arenas, recreational vehicle and boat storage areas, and a recreational vehicle park.
- Spiegelberg Homestead – Early 20th-century barn, tree windbreak (and an archaeological component).

P-12-001987, P-12-002061, P-12-003225, the Northwestern Pacific Railroad Spur, Redwood Acres, Humboldt Bay-Humboldt #1 60 kV Line, Humboldt #1 115kV Line/Humboldt #2 60kV Line, and Humboldt Bay-Eureka 60 kV Line have been evaluated as not eligible for the California Register; thus, none of these eight resources qualifies as a historical resource, as defined in State CEQA Guidelines Section 15064.5.

The architectural component of the Spiegelberg Homestead has been evaluated as not contributing to any potential California Register-eligibility for the resource, though the resource's archaeological component has been assumed to potentially contribute to California Register-eligibility for the resource. As a result, the Spiegelberg Homestead is considered an historical resource, pursuant to CEQA, though only its archaeological component contributes to its significance, and its archaeological component is not within the C-APE.

In summary, no known historical resources, as defined in State CEQA Guidelines Section 15064.5, are present in the C-APE. Therefore, the proposed Project would not impact any historical resources.

b) Whether the Project would cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5: *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.*

Through archival research, records searches, correspondence with Native American representatives and local agencies and groups, a cultural resources pedestrian survey, and a subsurface survey, one archaeological resource, Spiegelberg Homestead, was identified in the C-APE. The Spiegelberg Homestead has both an architectural component (discussed in the previous section) and an archaeological component, which consists of a low-density artifact concentration completely outside the C-APE. As described above, the architectural component of the Spiegelberg Homestead has been evaluated as not contributing to any potential California Register-eligibility for the resource, though the resource's archaeological component has been assumed to potentially contribute to California Register-eligibility for the resource in light of a lack of any archaeological subsurface investigations at the resource. As a result, the Spiegelberg Homestead is considered an archaeological resource, pursuant to CEQA, though its archaeological component is not within the C-APE. APM CUL-2 would help ensure that the archaeological component of the Spiegelberg Homestead is not impacted by the proposed Project by requiring flagging or safety fencing around the archaeological component and avoiding all Project-related ground-disturbing activities within archaeological component.

In summary, no known archaeological resources that may qualify as historical resources, as defined in State CEQA Guidelines Section 15064.5, or unique archaeological resources, as defined in Public Resources Code Section 21083.2(g), are present in the C-APE. Therefore, the proposed Project would not impact any known archaeological resource, pursuant to State CEQA Guidelines Section 15064.5.

However, the proposed Project would involve ground-disturbing activities that may extend into undisturbed soil. It is possible that such activities could unearth, expose, or disturb subsurface archaeological resources that have not been identified on the surface. Because previously unrecorded archaeological deposits could be present in the C-APE, and they could be found to qualify as archaeological resources pursuant to CEQA Guidelines Section 15064, impacts of the proposed Project to archaeological resources could be potentially significant. APM CUL-1 would help reduce any potential impacts to undocumented archaeological resources by requiring a Workers Environmental Awareness Training for Project personnel. Though APM CUL-3 and APM CUL-4 would help reduce any potential impacts to undocumented archaeological resources, including any that may also qualify as tribal cultural resources by requiring adherence to a protocol in the event of the discovery of any such resources during Project implementation, these APMs do not include sufficient detail regarding development of treatment measures or reporting. Therefore, more detailed mitigation as described in **Mitigation Measure CUL-1** is required to reduce any such impact to a less-than-significant level.

Mitigation Measure CUL-1: This measure supersedes APM CUL-3(a), and APM CUL-4. If indigenous or historic-era archaeological resources are encountered during proposed Project development or operation, PG&E and/or its contractors shall immediately cease all construction activity within 100 feet of the find and flag off the area for avoidance. The CPUC and a qualified archaeologist, defined as one meeting the U.S. Secretary of the Interior's Professional Qualifications Standards for Archeology and with expertise in California archaeology, shall be immediately informed of the discovery. The qualified archaeologist shall inspect the discovery and notify the CPUC of their initial assessment. Indigenous archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (midden) containing heat-affected rocks, artifacts, or shellfish remains; stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include building or structure footings and walls, and deposits of metal, glass, and/or ceramic refuse. If the qualified archaeologist determines that the resource is or is potentially indigenous in origin, culturally affiliated California Native American Tribes shall be contacted to assess the find and determine whether it is potentially a tribal cultural resource.

If the CPUC determines, based on formal evaluations of California Register-eligibility (at Public Resources Code Section 5024.1[c]) documented by the qualified archaeologist and the culturally affiliated California Native American Tribes (if the resource is indigenous), that the resource is either an historical resource or unique archaeological resource (as defined in CEQA Guidelines Section 15064.5 and Public Resources Code Section 21083.2), or that the resource may qualify as a tribal cultural resource (as defined in Public Resources Code Section 21074), then the resource shall be avoided if feasible. Avoidance means that no activities associated with the proposed Project that may impact cultural resources shall occur within the boundaries of the resource or any defined buffer

zones. The CPUC shall determine whether avoidance is feasible considering factors such as the nature of the find, project design, costs, and other considerations. Formal significance evaluations under California Register Criterion 4 shall be guided by research designs developed by a qualified archaeologist.

If avoidance of such a resource is not feasible, the CPUC shall consult with a qualified archaeologist, culturally affiliated California Native American Tribes (if the resource is indigenous), and other appropriate interested parties to determine treatment measures to minimize or mitigate any potential impacts to the resource pursuant to Public Resources Code Section 21083.2 and CEQA Guidelines Section 15126.4.

If avoidance is not feasible, the CPUC shall prepare and implement an Archaeological (and/or Tribal Cultural) Resources Treatment Plan that outlines the treatment measures for the resource based on the resource's values/significance as detailed in the formal California Register-eligibility evaluation.

Any treatment measures implemented shall be documented in a professional-level technical report (e.g., Archaeological Testing Results Report, Archaeological Data Recovery Report, Ethnographic Report, etc.), to be authored by a qualified archaeologist and filed with CHRIS. Construction work at the location of the find may commence upon completion of the approved treatment and authorization by the CPUC. Work may proceed in other parts of the C-APE while the mitigation is being carried out.

If the CPUC determines during project implementation that portions of the C-APE may be sensitive for archaeological resources or tribal cultural resources, the CPUC may authorize construction monitoring of these locations by a qualified archaeologist and Native American monitor. Any monitoring by a Native American monitor shall be done under agreements between PG&E or their designated contractor and culturally affiliated California Native American Tribes.

Significance after Mitigation: Less than significant.

**c) Disturb any human remains, including those interred outside of formal cemeteries:
*LESS THAN SIGNIFICANT IMPACT.***

No human remains have been identified in the C-APE through archival research, field surveys, or Native American correspondence. In addition, the land use designations for the C-APE do not include cemetery uses. Therefore, the proposed Project is not anticipated to disturb any human remains.

However, the proposed Project would involve ground-disturbing activities. It is possible that such actions could unearth, expose, or disturb previously unknown human remains. Should human remains be discovered during construction activities, impacts of the proposed Project on the human remains would be significant if those remains were disturbed or damaged. APM CUL-1 and APM CUL-3(b) would reduce any potential impacts to human remains to a less-than-significant level by requiring a Workers Environmental Awareness Training for Project personnel and adherence to a protocol in the event of the discovery of any human remains, including any that may also qualify as tribal cultural resources, during Project implementation.

Mitigation: None required.

3.5.5 References

Allen, Polly, and Matt Walker, *NRHP and CRHR Inventory and Evaluation: Humboldt Bay-Humboldt #1 60 kV, Humboldt Bay-Humboldt #1 115 kV, Humboldt Bay-Humboldt #2 60 kV, and Humboldt Bay-Eureka 60 kV Transmission Lines Humboldt County, California*, prepared by Cardno, Sacramento, CA, prepared for Pacific Gas & Electric, Co., Sacramento, CA, November 2018.

Quercus Consultants, Inc., *Cultural Resources Inventory, Survey, and Evaluation Report for the Humboldt Bay-Humboldt #1 60 kV Reconductoring Project Humboldt County, California*, prepared for Pacific Gas & Electric, Co., Sacramento, CA, February 2019.

3.6 Energy

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
6. ENERGY — Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

This impact analysis evaluates the potential for the proposed Project to result in a substantial increase in energy demand and/or wasteful use of energy during Project construction, operation, and maintenance. The potential impacts are analyzed based on an evaluation of whether construction and operational energy use estimates for the Project would be considered excessive, wasteful, or inefficient. For the purposes of this analysis, the PG&E service area, including Humboldt County, were used as a basis for energy consumption relative to the energy consumed by the Project.

3.6.1 Environmental Setting

Pacific Gas & Electric (PG&E)

PG&E is a regulated public utility that provides electric services to approximately 5.4 million customers and natural gas services to approximately 4.3 million customers within a 70,000-square-mile service territory in northern and central California, providing service from Bakersfield north to Eureka (PG&E, 2019a). Operating characteristics of PG&E's electricity and distribution systems are provided below.

PG&E Electric Utility Operations

To meet customer demand, PG&E produces power from its own electric generation facilities and procures it from other suppliers through CPUC-approved purchased-power contracts (PG&E, 2019b). PG&E owns and operates the Diablo Canyon Nuclear Facility in San Luis Obispo (this facility's U.S. Nuclear Regulatory Commission license will expire in 2024 after which the license will not be renewed), 66 hydroelectric powerhouses located throughout northern and central California, two fuel cell generation facilities in the San Francisco Bay Area, nine photovoltaic facilities located in the Central Valley, and three fossil-fuel fired generating stations including Humboldt Bay Generating Station (HBGS), which is a natural gas fired power plant. Energy produced by the HBGS is delivered through the transmission lines that comprise the proposed Project. Combined, these facilities have a net operating capacity of 7,686 megawatts (MW) of energy, or approximately 59.3 percent of total bundled retail sales. PG&E procures approximately

4.9 percent of the energy it sells from qualifying facilities¹ and approximately 46.3 percent of energy sold from third- party purchase agreements (PG&E, 2018). As of December 31, 2018, PG&E owned or operated three battery storage facilities, each less than 10 MW. In 2018, the CPUC approved two battery storage facilities, including the 20 MW Llagas Energy Storage Project, which will come online in 2021 and the Moss Landing Project, a 182.5 MW project scheduled to come online by the end of 2020 (PG&E, 2018). In 2018, 38.9 percent of the energy delivered to PG&E customers came from renewable energy-related projects (PG&E, 2018). PG&E's mix of energy resources in 2017, as well as the 2017 California power mix is presented in **Table 3.6-1**.

**TABLE 3.6-1
PG&E ELECTRIC RESOURCES^a**

Source	PG&E 2017 Power Mix	CA 2017 Power Mix ^b
Eligible Renewables:	33%	29
Wind	8%	10%
Solar	13%	10%
Eligible Hydro	3%	3%
Geothermal	5%	4%
Biomass and Biowaste	4%	2%
Coal	0%	4%
Large Hydroelectric	18%	15%
Natural Gas	20%	34%
Nuclear	27%	9%
Other	0%	<1%
Unspecified sources of power^a	2%	9%
Total	100%	100%

NOTES:

^a "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources.

^b Percentages are estimated annually by the California Energy Commission based on the electricity sold to California consumers during the identified year.

SOURCE: PG&E, 2018

Service to PG&E's customers is supported by its electric transmission and distribution system. PG&E's electric transmission and distribution facilities include substations and overhead and underground lines. The facilities consist of approximately 18,000 circuit miles of transmission lines with voltages between 60 kilovolt (kV) to 500 kV and 84 electric transmission substations. PG&E's distribution infrastructure includes 107,000 miles of distribution lines, and 769 distribution substations (PG&E, 2018). PG&E facilities near the Project are identified in Chapter 2, Project Description.

¹ A qualifying facility is defined as, "Facility that interconnects with PG&E's transmission or distribution system, producing wind, hydroelectric, biomass, waste or geothermal energy. Qualifying facilities can also be cogeneration facilities that produce electricity and another form of thermal energy. Energy deregulation has allowed these generators to choose the markets in which they sell the electricity they generate" (PG&E, 2019b).

Redwood Coast Energy Authority (RCEA)

The RCEA is a local government Joint Powers Agency that includes the County of Humboldt, and the cities of Arcata, Blue Lake, Eureka, Ferndale, Fortuna, Rio Dell, and Trinidad, and the Humboldt Bay Municipal Water District. RCEA's service area includes all of Humboldt County. The RCEA's purpose is to "develop and implement sustainable energy initiatives that reduce energy demand, increase energy efficiency, and advance the use of clean, efficient and renewable resources available in the region for the benefit of the Member agencies and their constituents" (RCEA, 2019a). RCEA administers Humboldt County's Community Choice Energy Program, which purchases power through long- and short-term contracts with energy producers and delivers electricity to customers on existing PG&E infrastructure. Customers in Humboldt County can choose to opt out of the RCEA program and remain a PG&E customer. The purpose of the Community Choice Program is to make renewable, locally produced energy available to customers in Humboldt County at lower rates. Additionally, RCEA operates a number of programs to assist residential and non-residential customers reduce the electricity consumed in their homes and businesses (RCEA, 2019a).

RCEA Electric Utility Operations

RCEA's power sources currently include wind, solar, and hydro power from California and the Pacific Northwest, as well as local biomass. Regarding its power mix, RCEA states that it is committed to providing power that is "at least 5 percent higher renewable than PG&E and 5 percent lower greenhouse gas emissions at competitive rates" (RCEA, 2019b). RCEA offers two services, REpower, which is 40 percent renewable, and REpower+, which provides 100 percent renewable energy. RCEA's mix of power resources in 2018 for both the REpower and REpower+ programs are shown in **Table 3.6-2**.

TABLE 3.6-2
RCEA ELECTRIC 2018 POWER CONTENT^a

Source	REpower	REpower ^b
Eligible Renewables:	47%	100%
Wind	13%	44%
Solar	3%	44%
Eligible Hydro	0%	0%
Geothermal	8%	0%
Biomass and Biowaste	23%	12%
Coal	0%	0%
Large Hydroelectric	47%	0%
Natural Gas	0%	0%
Nuclear	0%	0%
Other	0%	0%
Unspecified sources of power^b	6%	0%
Total	100%	100%

NOTES:

^a This Power Content Label (PCL) for 2018 is pending third party verification.

^b "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources. Percentages are estimated annually by the California Energy Commission based on the electricity sold to California consumers during the identified year.

SOURCE: RCEA, 2019b

Electricity Consumption

Table 3.6-3 shows electricity consumption by sector in PG&E's service area. As shown in the table, PG&E delivered approximately 79 billion kilowatt-hours (kWh) of electricity in 2018 (California Energy Commission [CEC], 2019a).

**TABLE 3.6-3
ELECTRICITY CONSUMPTION IN PG&E SERVICE AREA (2018)**

Agriculture and Water Pumping	Commercial	Residential	Mining and Construction	Industrial	Street and Highway Lighting	Total Usage
All Usage Expressed in Millions of kWh (GWh)						
5,735	33,845	27,964	1,567	10,344	318	79,775
SOURCE: CEC, 2019a						

As demonstrated by Table 3.6-3, in 2018, residential use represented approximately 35 percent of total energy usage, commercial use represented 42 percent, industrial use represented 13 percent, agriculture and water pump use represented 7 percent, mining and construction use represented 2 percent of use, and street and highway lighting use represented 0.4 percent.

Gasoline, Diesel, and Jet Fuel

Supply

California is nearly self-sufficient with regard to the gasoline and diesel fuel supply, obtaining nearly all of the supply to meet local demand from California refineries. Crude oil is refined to produce a wide array of petroleum products, including gasoline, diesel, and jet fuels. In addition, storage tank capacities at pipeline terminals in California are optimized to accommodate the largest weekly delivery of refined product (gasoline, diesel, or jet fuel) that is expected throughout the year (CEC, 2014). Refineries in California often operate at or near maximum capacity because of the high demand for petroleum products. When unplanned refinery outages occur, replacement supplies must be brought in by marine tanker from refineries in the State of Washington or on the U.S. Gulf Coast. California requires that all motorists use, at a minimum, a specific blend of motor gasoline called California Reformulated Gasoline (CaRFG) as part of an overall program to reduce emissions from motor vehicles. Refineries in several other countries can also supply CaRFG. However, locating and transporting replacement motor gasoline that conforms to California's strict fuel specifications from overseas can take several weeks (U.S. Energy Information Administration [EIA], 2017). As a result, unplanned outages often result in a reduction in supply that causes prices to increase, sometimes dramatically. The severity and duration of these price spikes depend on how quickly the refinery issue can be resolved and how soon supply from alternative sources can reach the affected market (EIA, 2015).

Consumption and Distribution

Gasoline is the most used transportation fuel in California, with 97 percent of all gasoline being consumed by light-duty cars, pickup trucks, and sport utility vehicles (CEC, 2019b). Diesel fuel is the second largest transportation fuel used in California, representing 17 percent of total fuel sales

behind gasoline. Nearly all heavy duty-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, construction equipment, heavy duty military vehicles and equipment have diesel engines. Diesel is the fuel of choice because it has 12 percent more energy per gallon than gasoline and has fuel properties that prolong engine life making it ideal for heavy duty vehicle applications (CEC, 2019d). According to the State Board of Equalization (BOE), approximately 15.6 billion gallons of gasoline, including aviation gasoline, and 3.1 billion gallons of diesel, including off-road diesel, were sold in California in 2018 (BOE 2019a, 2019b). The Board of Equalization estimates that 165 million gallons of jet fuel were sold in California in 2018 (BOE, 2019c). In Humboldt County, it is estimated that 58 million gallons of gasoline and 8 million gallons of diesel were sold in 2018 (CEC, 2019c). The CEC estimates that there were approximately 83 gasoline stations in Humboldt County in 2018 (CEC, 2019c). Commercial fleet fueling services are available in the City of Eureka, along Highway 101, Myrtle Avenue, and Walnut Drive (Commercial Fueling Network [CFN], 2019).

3.6.2 Regulatory Setting

Federal

National Energy Conservation Policy Act

The National Energy Conservation Policy Act (NECPA, 42 USC §8201 et seq.) serves as the underlying authority for federal energy management goals and requirements and is the foundation of most federal energy requirements. NECPA established energy-efficiency standards for consumer products and includes a residential program for low-income weatherization assistance, grants and loan guarantees for energy conservation in schools and hospitals, and energy-efficiency standards for new construction. Furthermore, NECPA established fuel economy standards for on-road motor vehicles in the United States. The National Highway Traffic and Safety Administration (NHTSA), which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and revising existing standards under NECPA. USDOT is authorized to assess penalties for noncompliance. In the course of more than 30 years, this regulatory program has resulted in improved fuel economy throughout the United States' vehicle fleet (NHTSA, 2014, 2018).

National Energy Policy Act of 2005

The National Energy Policy Act of 2005 (42 USC §13201 et seq.) sets equipment energy efficiency standards and seeks to reduce reliance on nonrenewable energy resources and provide incentives to reduce current demand on these resources. For example, the Act establishes programs in order to improve the reliability and efficiency of distributed energy resources and systems by integrating advanced energy technologies with grid connectivity.

Energy and Independence Security Act of 2007 and Corporate Average Fuel Economy Standards

The Energy and Independence Security Act of 2007 (42 USC §17001) sets federal energy management requirements in several areas, including energy reduction goals for federal

buildings, facility management and benchmarking, performance and standards for new buildings and major renovations, high-performance buildings, energy savings performance contracts, metering, energy-efficient product procurement, and reduction in petroleum use, including by setting automobile efficiency standards, and increasing alternative fuel use.

State

Warren-Alquist Act

The 1975 Warren-Alquist Act (Pub. Res. Code §25000 et seq.) established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The Act established a state policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The Act also was the driving force behind the creation of CEQA Guidelines Appendix F, Energy Conservation.

State of California Integrated Energy Policy

Public Resources Code Section 25301(a) requires the CEC to develop an integrated energy plan at least every two years for electricity, natural gas, and transportation fuels. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. An overarching goal of the resulting Integrated Energy Policy Report is to achieve the statewide greenhouse gas reduction targets, while improving overall energy efficiency. For example, the CEC's 2018 Integrated Energy Policy Report Update includes increasing grid flexibility as a key component and maintaining the reliability of the electricity system while integrating larger amounts of variable wind and solar generation (CEC, 2018).

Renewables Portfolio Standard (RPS)

The state's Renewables Portfolio Standard (RPS) was established in 2002 via Senate Bill (SB) 1078. Since 2011, the RPS target has required all electricity retailers in the state, including investor-owned utilities such as PG&E, Southern California Edison (SCE), and San Diego Gas and Electric (SDG&E) to procure 33 percent of their energy sales from renewable sources by the end of 2020 (CPUC, 2019a). SB 350, passed in 2015, directs California utilities to further increase the amount of renewable energy to be delivered to customers to 50 percent by 2050. Collectively, PG&E, SCE, and SDG&E are forecasted to reach 50 percent in 2020 (CPUC, 2019b). SB 100, passed in 2018, revised the goal of the program to achieve a 50 percent renewable resources target by 2026, and a 60 percent target by 2030. Additionally, SB 100 created a policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by 2045.

California Advanced Clean Cars Program/Zero Emission Vehicle Program

In January 2012, the California Air Resources Board (CARB) approved a new emissions-control program for vehicle model years 2017 through 2025. The program combines the control of smog, soot, and greenhouse gas with requirements for greater numbers of zero-emission vehicles into a

single package of standards called Advanced Clean Cars. The components of the Advanced Clean Cars Program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and greenhouse gas emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years. In March 2017, CARB voted unanimously to continue with the vehicle greenhouse gas emission standards and the ZEV program for cars and light trucks sold in California past 2025 (CARB, 2017).

CARB Heavy Duty Regulations

CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation requires diesel trucks that operate in California to be upgraded to reduce emissions. By 2023, nearly all trucks will have 2010 model year engines or equivalent (CARB, 2018).

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction." The discussion below presents local policies and regulations for informational purposes only; the CPUC does not consider these regulations "applicable" as that term is used in CEQA.

Redwood Coast Energy Authority

The RCEA has developed a number of planning documents that guide RCEA functions. The Draft 2019 Update to the Comprehensive Action Plan for Energy outlines objectives for the RCEA including the following, which would be relevant to the Project:

Regional Energy Planning and Coordination: Facilitate coordinated strategic energy planning within Humboldt County, provide a forum for addressing countywide energy issues, and assist local jurisdictions with completing greenhouse gas inventories, climate action plans, and general plan energy elements.

Energy Reliability & Security: Coordinate with utility providers and other local governments on energy emergency planning and response, evaluate transmission and distribution systems, and conduct a climate change risk assessments and develop adaptation plans.

Built Environment Efficiency: Develop and implement programs which encourage energy efficiency and renewable energy retrofits in existing buildings, and support local implementation of state-wide energy efficiency standards and goals.

Perform Transmission Assessments and Monitoring: Encourage development of long-term transmission assessments and, if necessary, electrical transmission grid expansion plans. Monitor local electricity transmission system planning to ensure that projected growth areas are adequately served and to support the development of local renewable energy projects.

Upgrade the Electricity Transmission and Distribution System: Upgrade the regional transmission and distribution electrical grid to enable increased development of both utility-scale renewable energy projects as well as community-scale distributed generation systems, including capability to export surplus renewable electricity generation from Humboldt County to other areas of the state (RCEA, 2019c).

REpower Humboldt, A Strategic Plan for Renewable Energy Security and Prosperity, was developed in 2013 by a stakeholder group including RCEA, PG&E, CEC, and Schatz Energy Research Center. The Plan includes results from a study that analyzed technical and economic implications of renewable energy development in Humboldt County. The Plan identified near term actions for stakeholders to take to move the County toward energy independence that is built on energy conservation and renewable energy generation. Additionally, the Plan identified long-term Actions, which are relevant to the Project:

LTS9. Work with PG&E to plan for long-term electric grid infrastructure upgrades. The REPower Humboldt technical analysis found that large-scale development of renewable energy resources in Humboldt County will require significant upgrades to the electrical transmission and distribution infrastructure. In addition, the cost and nature of these upgrades could be substantially different if they were developed based on a long-term plan as opposed to specific upgrades being made on a project-by-project basis. For this reason, REPower Humboldt representatives should work with PG&E, the California Independent System Operator, and others to explore the options for electric grid upgrades and determine the most appropriate approach given short-term and long-term needs and resources (RCEA, 2013).

City of Eureka General Plan

The City of Eureka General Plan (adopted October 15, 2019) contains the following policy, which supports the City's overall energy goal (Goal U-5) "Increased renewable energy provision and overall energy efficiency and conservation throughout the City" (City of Eureka, 2018).

Our Infrastructure, Utilities: Policies address reduction in greenhouse gas emissions through energy conservation requirements, encouraging passive cooling/heating building and site design, requiring energy efficiency measures, incentivizing green buildings and businesses, and educating the public on renewable energy and energy efficiency.

Humboldt County General Plan

The Energy Element of the Humboldt County General Plan (adopted October 23, 2017) contains the following goal and policy regarding energy planning, efficiency, and standards that are relevant to the Project:

Goal E-G2: Increase Energy Efficiency and Conservation. Decrease energy consumption through increased energy conservation and efficiency in building, transportation, business, industry, government, water and waste management.

Policy E-P8. Electrical Transmission. Promote PG&E funded capacity upgrades to electric distribution lines to facilitate distributed renewable energy production and electricity export from the county.

3.6.3 Applicant Proposed Measures

No Applicant Proposed Measures have been proposed by PG&E to reduce potential energy-related impacts of the Project.

3.6.4 Environmental Impacts

Approach to Analysis

Consistent with CEQA Guidelines Appendix G, this impact analysis evaluates the potential for the proposed Project to result in a substantial increase in energy demand and/or wasteful use of energy during Project construction, operation, and maintenance. Additionally, this section analyzes the potential for the Project to conflict with a state or local plan for renewable energy or energy efficiency. The potential impacts are analyzed based on an evaluation of whether construction and operational energy use estimates for the Project would be considered excessive, wasteful, or inefficient. Energy use details supporting the Project estimates presented in this section also are based on greenhouse gas emissions estimates, summarized in Section 3.8, Greenhouse Gas Emissions.

Discussion

- a) **Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation: *LESS THAN SIGNIFICANT IMPACT.***

The proposed Project would not involve the use of natural gas; therefore, the analysis below evaluates direct transportation-related fuel consumption and indirect use of electricity.

Construction

The analysis in this section utilizes the greenhouse gas emissions estimates identified in **Appendix C**, Air Quality, Greenhouse Gas Emissions, and Energy, to estimate gasoline and diesel fuel consumption volumes for Project construction-related equipment and vehicles. The fuel use calculations are also provided in Appendix C, and are summarized below. In addition to the fuel that would be required for construction, the Project would also result in indirect, short-term electricity use resulting from proposed water use. Project construction would result in the indirect consumption of approximately 7.14 MWh of electricity resulting from water use (ESA, 2019). As described in Table 3.6-3, within PG&E's service area, approximately 5,735,000 MWh of electricity are consumed for agriculture and water pumping. Therefore, the amount of electricity consumed by the Project due to indirect water use would not be significant.

Construction would result in fuel consumption from the use of construction tools and equipment, haul truck trips, helicopter use, and vehicle trips generated from workers traveling to and from the Project sites. Construction is expected to consume a total of approximately 57,350 gallons of diesel fuel from construction equipment, vendor truck trips, and haul truck trips, approximately 16,580 gallons of gasoline from construction worker vehicle trips, and approximately 28,750 gallons of jet fuel from helicopter activities. For reference, approximately 55 million

gallons of gasoline and 8 million gallons of diesel were sold in Humboldt County in 2018 and approximately 165 million gallons of jet fuel were sold in California in 2018 (CEC, 2019c). Construction activities and corresponding fuel energy consumption would be temporary and localized, as the use of diesel fuel for heavy-duty equipment would not be a typical condition of the Project during operation.

In addition, a comparison of greenhouse gas emissions for similar electric transmission line projects indicates that there are no unusual Project characteristics that would cause the use of construction equipment that would be less energy efficient compared with other similar construction projects. Project construction-related CO₂ emissions were compared to the PG&E Missouri Flat-Gold Hill 115kV Power Line and Reconductoring Project (CPUC, 2015), the PG&E Fulton Fitch Mountain Reconductoring Project (CPUC 2017a), the PG&E Cressy Gallo 115 kV Power Line Project (CPUC, 2013), the SDG&E TL 649 Wood-to-Steel Replacement Project (CPUC, 2018), the SDG&E TL 695 and TL 6971 Reconductoring Project (CPUC, 2017b). Based on this comparison, as well as the Project's relatively low energy demand, construction-related fuel consumption by the Project would not result in inefficient, wasteful, or unnecessary energy use compared with the energy use for other construction projects in the region. The impact would be less than significant.

Operation and Maintenance

In general, routine operation and maintenance of the Project would be substantially the same as current conditions. Therefore, operation and maintenance would not result in the wasteful, inefficient, and/or unnecessary consumption of energy. The impact would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency: *NO IMPACT.*

The proposed Project would replace existing conductor with weather-resistant, heavier conductor and supporting structures to reduce the frequency of outages, complete necessary maintenance, and address an existing curtailment issue to reinforce the existing power line system. These upgrades are intended to maintain transmission system reliability, reduce the frequency of outages, and increase back up capacity. As discussed above, the CEC's 2018 Integrated Energy Policy Report Update includes a goal to maintain the reliability of the electricity system while integrating larger amounts of variable wind and solar generation. Since the Project would address reliability issues, it would not conflict with the renewable energy goals of California's Integrated Energy Policy. Additionally, the Project would support several goals of the RCEA and Humboldt County General Plan to increase energy reliability, and improve electrical transmission infrastructure.

With regard to the energy use of heavy-duty vehicles during construction, the U.S. Environmental Protection Agency (USEPA) and NHTSA established a comprehensive Heavy-Duty National Program that is intended to reduce greenhouse gas emissions and increase fuel efficiency for on-road heavy-duty vehicles beginning with model year 2014 (USEPA, 2011). CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation also requires diesel trucks that operate in California to be upgraded to reduce emissions, such that by 2023 nearly all trucks will have 2010

model year engines or equivalent (CARB, 2018). This regulation is implemented through vehicle manufacturer and registration compliance. Vehicles used during Project construction would already incorporate these standards as applicable; therefore, the Project would not violate existing fuel efficiency standards for heavy-duty vehicles. While diesel fuel would be required during construction of the Project, the use of diesel fuel for heavy-duty vehicles and off-road equipment would not be a typical condition of the Project during operation.

Regarding light-duty vehicle energy usage, as described above, the NHTSA required manufacturers of light-duty vehicles to meet an estimated combined passenger car and light truck average fuel economy level of 34.1 miles per gallon (mpg) by model year 2016. In the course of more than 30 years, the NECPA regulatory program has resulted in improved fuel economy throughout the United States' vehicle fleet, and has also protected against inefficient, wasteful, and unnecessary use of energy. Regardless of the uncertainty for fleet-wide emissions past 2021, the projected fleet-wide mpg for light-duty vehicles is expected to reach 41.7 mpg by 2020 (USEPA, 2012, 2018). Additionally, CARB's Advanced Clean Cars Program will continue to improve fuel efficiency and reduce gasoline use through an increase of Zero Emission Vehicles and Plug-in Hybrid Electric Vehicles. Vehicles used by Project construction and maintenance workers would already incorporate these standards and programs; therefore, the Project would not impede the efficient use of fuel for light-duty vehicles.

Due to the Project's relatively low energy demand, its goal of addressing reliability issues and compliance with fuel and energy efficiency regulations, the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency; therefore, no impact would occur.

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3.7 Geology and Soils

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
7. GEOLOGY AND SOILS — Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) ¹ , creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

This section evaluates whether construction, operation, and maintenance of the proposed Project would result in potential adverse impacts related to geology, soil conditions, seismicity, or paleontological resources. For purposes of this analysis, the study area includes the footprint of all the components of the Project (see Chapter 2, Project Description) and all areas of temporary or permanent disturbance, along with the broader tectonic environment of Northern California. Many of the faults that occur in this region do not directly transect any Project components, although potential seismic activity in the region is included as part of the study area.

This analysis is based, in part, on review of various geologic maps and reports, as well as a paleontological records search and literature review, a Geotechnical Investigation by TRC (2018), and a Paleontological Evaluation and Inventory Report by Paleo Solutions (2018). The primary

¹ The California Building Code (CBC), based on the International Building Code (IBC) and the now defunct Uniform Building Code (UBC), no longer includes a Table 18-1-B. Instead, Section 1803.5.3 of the CBC describes the criteria for analyzing expansive soils.

sources include available resources from the United States Geological Survey (USGS), the California Geological Survey (CGS), and the University of California Museum of Paleontology (UCMP). Both short-term and long-term Project effects are analyzed to determine their significance.

3.7.1 Environmental Setting

Regional Geology

Unit Descriptions

The geologic unit designations identified in this analysis come from the Paleontological Evaluation and Inventory Report prepared by Paleo Solutions (2018), which incorporated unit information from both the Dibblee and Minch (2008) Geologic Map of the Ferndale, Fortuna, and Iaqua Buttes 15 Minute Quadrangles, and the geologic map of the Eureka and Southwestern Hayfork Quadrangles by McLaughlin et al. and the accompanying explanation sheet (USGS, 2000).

Alluvial Gravel (Qa)

Alluvial gravel correlates to the Holocene to late Pleistocene Alluvial deposits (Qal) depicted on the map by McLaughlin, et al. (2000). Deposits of Holocene-age² alluvial gravel are mapped within the Project alignment and consist of floodplain and stream channel alluvial gravel, sand, and clay, recently dissected by currently active stream channels. Alluvium is mapped throughout the entirety of the Project alignment but is predominantly mapped at the surface in the west near Humboldt Bay and along active channels to the east (Paleo Solutions, 2018).

Centerville Formation (Qc)

The Centerville Formation correlates to the Holocene and Pleistocene³ Undifferentiated nonmarine terrace deposits (Qt) depicted on the McLaughlin et al. map. The Centerville Formation is Pleistocene in age and consists of non-marine, older alluvial sediments. The Centerville Formation is unconformably underlain by the Van Duzen Formation (also referred to as the Pleistocene-age Carlotta Formation or the Upper Member of the Wildcat Series), which is not mapped at the surface within the Project alignment. In the vicinity of the Project area, the Centerville Formation consists of buff to reddish-brown, cross-bedded, poorly to moderately consolidated sand and gravel, with well-rounded pebbles and cobbles of Franciscan detritus (Paleo Solutions, 2018). Within the bounds of the Project alignment, the Centerville Formation is mapped throughout its entirety but is predominantly mapped in its central and western portions.

Price Creek Formation (Tppc)

The Price Creek Formation correlates to the late Pleistocene to middle Miocene⁴ Marine and nonmarine overlap deposits (QTW) depicted on the McLaughlin et al. map. Also known as the

² Holocene time is from the present to 11,700 years before present time.

³ Pleistocene time is from 11,700 to 1.6 million years before present time.

⁴ Miocene time is from 5.3 million to 24 million years before present time.

lower member of the Wildcat Series or the Wildcat Formation, it consists of late Miocene- to early Pleistocene-age marine siltstones and shale. The Price Creek Formation is subdivided into three members: the Upper Pico Member, the Middle Pico Member, and the Lower Pico Member. The Price Creek Formation is mapped at the surface within the Project alignment in the western-most and eastern-most portions.

Soils

Expansive Soil

Expansive soils are soils that possess a “shrink-swell” characteristic, also referred to as linear extensibility. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying; the volume change is reported as a percent change for the whole soil. Changes in soil moisture can result from rainfall, landscape irrigation, utility leakage, roof drainage, and/or perched groundwater.⁵ Expansive soils are typically very fine-grained and have a high to very high percentage of clay. Structural damage may occur incrementally over a long period of time, usually as a result of inadequate soil and foundation engineering, or the placement of structures directly on expansive soils. Linear extensibility is used to determine the shrink-swell potential of soils. If the linear extensibility is more than 3 percent, shrinking and swelling may cause damage to building, roads, and other structures. (Natural Resources Conservation Service [NRCS], 2018a).

While a majority of the area surrounding the proposed Project alignment has a low shrink-swell potential, a small portion of it along Ryan Slough has a high shrink-swell potential.

Soil Corrosivity

The corrosivity of soils pertains to the potential for certain soils to cause an electrochemical or chemical reaction that can corrode or weaken uncoated steel or concrete. The rate at which these materials corrode is dependent on a number of variables, including but not limited to: soil moisture, texture, mineral content, and acidity. The rate of corrosion of steel is based on soil moisture, particle-size distribution, acidity, and electrical conductivity. Corrosion of concrete is based on the sulfate and sodium content, texture, moisture, and acidity of the soil. The risk of corrosion is expressed as low, moderate, or high.

The NRCS Web Soil Survey provides data assessing the corrosivity of soils, specifically the corrosion of steel and concrete (NRCS, 2018b). Soils from the Project alignment were tested as part of the Geotechnical Investigation performed by TRC, and the investigation identified mild to moderate corrosion potential for near-surface soils.

⁵ Perched groundwater is a local saturated zone above the water table that typically exists above an impervious layer (such as clay) of limited extent.

Geological and Seismic Hazards

Faults and Seismicity

The study area is located in a historically seismically active portion of California. While there are no faults that transect the Project alignment, there are several fault systems in the region (Jennings and Bryant, 2010). The most significant of these faults, and their distances from the study area are listed in **Table 3.7-1**.

**TABLE 3.7-1
FAULTS IN PROXIMITY TO THE STUDY AREA**

Fault Name	Approximate Distance from Study Area and Direction (relative to Study Area)
Little Salmon fault zone (Little Salmon Fault – East Trace)	0.75-mile southwest
Fickle Hill Fault (Mad River fault zone)	3.5 miles northeast
Cascadia Subduction Zone	32 miles west

SOURCE: CGS, 2010; TRC, 2018; Google Earth

Fault Rupture

Faults are planar features within the earth’s crust that have formed to release strain caused by the dynamic movements of the earth’s major tectonic plates. An earthquake on a fault is produced when these strains overcome the inherent strength of the earth’s crust and the rock ruptures. The rupture causes seismic waves that propagate through the earth’s crust, producing the ground shaking effect known as an earthquake. The rupture also causes variable amounts of slip along the fault, which may or may not be visible at the earth’s surface (USGS, 2018a).

The magnitude and nature of fault rupture can vary for different faults or even along different strands of the same fault. Future faulting is generally expected along different segments of faults with recent activity, meaning within the last 11,700 years.⁶ Structures, transportation facilities, and utility systems crossing fault traces are at risk during a major earthquake due to ground rupture caused by differential lateral and vertical movement on opposite sides of the active fault trace (USGS, 2018b). While this region of California is seismically active, there are no active faults that cross the study area and the Project alignment is not located within a currently designated Alquist-Priolo Earthquake Fault Zone. The closest fault to the Project alignment is the Little Salmon Fault – East Trace of the Little Salmon fault zone, approximately 0.75-mile southwest of Tower #5 (TRC, 2018). Fault rupture is not anticipated to affect the Project alignment.

Ground Shaking

Ground shaking due to a seismic event can cause extensive damage to life and property, and may affect areas hundreds of miles away from the earthquake’s epicenter. The extent of the damage varies by event and is determined by several factors, including (but not limited to): magnitude and

⁶ California Geological Survey, 2008. Guidelines for Evaluating and Mitigation Seismic Hazards, CGS Special Publication 117A.

depth of the earthquake, distance from epicenter, duration and intensity of the shaking, underlying soil and rock types, and integrity of structures (USGS, 2018b).

The entire Northern California region, including the study area, could be subject to strong ground shaking during earthquakes. According to the ShakeMap that corresponds with the earthquake planning scenario generated by the United States Geological Survey (USGS), if a M_w ⁷ 7.1 event were to occur on the Little Salmon Fault, the study area may experience violent to extreme ground shaking with moderate to heavy damage expected (USGS, 2016a). A similar planning scenario designed for a potential magnitude 9.0 earthquake on the Cascadia megathrust (Cascadia Subduction Zone) indicates that ground shaking intensity would very likely be very strong to violent (USGS, 2016c).

As noted previously, there are several mapped active or potentially active faults in the region. In 2015, the 2014 Working Group on California Earthquake Probabilities⁸ (WGCEP 2014) presented the third Uniform California Earthquake Rupture Forecast (UCERF3) (Field, et al., 2015). According to this report, there is a 95 percent probability of a magnitude 6.7 or greater earthquake in Northern California over the next 30 years (Field, et al., 2015), with a 10 percent probability of a magnitude 8.0 or 9.0 earthquake somewhere along the 750-mile-long Cascadia megathrust in the next 30 years (USGS, 2008).

In addition to naturally occurring seismic events (i.e., earthquakes, slip and creep along fault planes), seismic events can also be triggered by changing subsurface conditions along fault planes by the injection or extraction of water, fracking fluids, and/or crude oil (SSA, 2019).

Liquefaction and Lateral Spreading

Liquefaction is a phenomenon in which unconsolidated, water saturated sediments become unstable due the effects of strong seismic shaking. During an earthquake, these sediments can behave like a liquid, potentially causing severe damage to overlying structures. Lateral spreading is a variety of minor landslide that occurs when unconsolidated liquefiable material breaks and spreads due to the effects of gravity, usually down gentle slopes. Liquefaction-induced lateral spreading is defined as the finite, lateral displacement of gently sloping ground as a result of pore-pressure buildup or liquefaction in a shallow underlying deposit during an earthquake. The occurrence of this phenomenon is dependent on many complex factors, including the intensity and duration of ground shaking, particle-size distribution, and density of the soil.

The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of structure slabs due to sand boiling, and buckling of deep foundations due to ground settlement. Dynamic settlement (i.e., pronounced consolidation and settlement from seismic shaking) may also occur in loose, dry

⁷ M_w is a measurement of earthquake magnitude. It is related to the physical characteristics of a fault, including the rigidity of the rock, the size of fault rupture, and the style of movement or displacement across the fault (USGS, 2018c).

⁸ Referred to as WGCEP 2014, this is a working group comprised of seismologists from the U.S. Geological Survey (USGS), California Geological Survey (CGS), Southern California Earthquake Center (SCEC), and California Earthquake Authority (CEA).

sands above the water table, resulting in settlement of and possible damage to overlying structures. In general, a relatively high potential for liquefaction exists in loose, sandy soils that are within 50 feet of the ground surface and are saturated (below the groundwater table). Lateral spreading can move blocks of soil, placing strain on buried pipelines that can lead to leaks or pipe failure.

The liquefaction analysis performed and presented in the Geotechnical Investigation by TRC indicates that the potential for liquefaction is likely in the soils in the southern portion of the alignment, near Humboldt Hill Road and Highway 101; and within soils found where the proposed alignment is near Bacchetti Drive in Eureka. According to the analysis, the other areas where the proposed alignment would cross do not indicate a potential for liquefaction.

Landslides

Landslides are one of the various types of downslope movements in which rock, soil, and other debris are displaced due to the effects of gravity. The potential for material to detach and move down slope depends on a variety of factors including the type of material, water content, and steepness of terrain. There are no available regulatory maps from the CGS or USGS that indicate the landslide potential in the Project area, and there are no previous landslides mapped in the Project area (USGS, 2000). The Draft Environmental Impact Report (DEIR) for the City of Eureka General Plan Update indicates that the majority of the area within City limits is relatively flat and not susceptible to landslides, with a higher potential for landslides limited to coastal bluff areas (City of Eureka, 2018). There are no data to indicate there is a landslide concern along the proposed alignment; a topographic map of the Eureka Quadrangle indicates that the terrane is relatively flat within the urban areas along the Project alignment, with mild slopes (between 20 and 100 feet) near the waterways along the Project alignment (USGS, 2018d).

Subsidence and Ground Settling

Subsidence is the gradual lowering of the land surface due to compaction of underlying materials. Subsidence can occur as a result of the extraction of groundwater and oil, which can cause subsurface clay layers to compress and lower the overlying land surface. The Project does not include the extraction of water or oil.

Paleontological Resources

Paleontological resources are the fossilized remains or impressions of plants and animals, including vertebrates (animals with backbones, such as mammals, birds, or fish), invertebrates (animals without backbones, such as starfish, clams, or coral), and microscopic plants and animals (microfossils). They are valuable, non-renewable, scientific resources used to document the existence of extinct life forms and to reconstruct the environments in which they lived. Fossils can be used to determine the relative ages of the depositional layers in which they occur and of the geologic events that created those deposits. The age, abundance, and distribution of fossils depend on the geologic formation in which they occur and the topography of the area in which they are exposed. The geologic environments within which the plants or animals became fossilized usually were quite different from the present environments in which the geologic formations now exist.

Paleontological Resources Potential

The Paleontological Evaluation and Inventory Report consisted of a search of the records maintained at University of California Museum of Paleontology (UCMP) and a review of scientific literature, geologic mapping, and unpublished paleontological reports (Paleo Solutions, 2018). Descriptions of the paleontological potential ratings of the geologic units in the study area, as provided by Paleo Solutions, are adopted from the Potential Fossil Yield Classification (PFYC) system of the Bureau of Land Management (BLM), and are summarized below:

TABLE 3.7-2
BLM POTENTIAL FOSSIL YIELD CLASSIFICATION

BLM PFCY Designation	Assignment Criteria Guidelines and Management Summary (PFYC System)
1 – Very Low Potential	Geologic units are not likely to contain recognizable paleontological resources.
	Units are igneous or metamorphic, excluding air-fall and reworked volcanic ash units.
	Units are Precambrian in age.
	Management concern is usually negligible, and impact mitigation is unnecessary except in rare or isolated circumstances.
2 – Low Potential	Geologic units are not likely to contain paleontological resources.
	Field surveys have verified that significant paleontological resources are not present or are very rare.
	Units are generally younger than 10,000 years before present.
	Recent eolian deposits
	Sediments exhibit significant physical and chemical changes (i.e., diagenetic alteration) that make fossil preservation unlikely.
	Management concern is generally low, and impact mitigation is usually unnecessary except in occasional or isolated circumstances.
3 – Moderate Potential	Sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence
	Marine in origin with sporadic known occurrences of paleontological resources
	Paleontological resources may occur intermittently, but these occurrences are widely scattered
	The potential for authorized land use to impact a significant paleontological resource is known to be low-to-moderate.
	Management concerns are moderate. Management options could include record searches, pre-disturbance surveys, monitoring, mitigation, or avoidance. Opportunities may exist for hobby collecting. Surface-disturbing activities may require sufficient assessment to determine whether significant paleontological resources occur in the area and whether the proposed activity could affect the paleontological resources.
4 – High Potential	Geologic units that are known to contain high occurrence of paleontological resources.
	Significant paleontological resources have been documented but may vary in occurrence and predictability.
	Surface-disturbing activities may adversely affect paleontological resources.
	Rare or uncommon fossils, including nonvertebrate (such as soft body preservation) or unusual plant fossils, may be present.
	Illegal collecting activities may impact some areas.
	Management concern is moderate to high depending on the proposed activity. A field survey by a qualified paleontologist is often needed to assess local conditions. On-site monitoring or spot-checking may be necessary during land disturbing activities. Avoidance of known paleontological resources may be necessary.

TABLE 3.7-2 (CONTINUED)
BLM POTENTIAL FOSSIL YIELD CLASSIFICATION

BLM PFCY Designation	Assignment Criteria Guidelines and Management Summary (PFCY System)
5 – Very High Potential	Highly fossiliferous geologic units that consistently and predictably produce significant paleontological resources.
	Significant paleontological resources have been documented and occur consistently
	Paleontological resources are highly susceptible to adverse impacts from surface disturbing activities.
	Management concern is high to very high. A field survey by a qualified paleontologist is almost always needed and on-site monitoring may be necessary during land use activities. Avoidance or resource preservation through controlled access, designation or areas of avoidance, or special management designations should be considered.
U - Unknown	Geologic units that cannot receive an informed PFCY assignment.
	Geological units may exhibit features or preservation conditions that suggest significant paleontological resources could be present, but little information about the actual paleontological resources or the unit or area is unknown.
	Geologic units represented on a map are based on lithologic character or basis of origin, but have not been studied in detail.
	Scientific literature does not exist or does not reveal the nature of paleontological resources.
	Reports of paleontological are anecdotal or have not been verified.
	Area or geologic unit is poorly or under-studied.
	Resource agency staff has not yet assessed the nature of the geologic unit.
	Until a provisional assignment is made, geologic units with unknown potential have medium to high management concerns. Field surveys are normally necessary, especially prior to authorizing a ground-disturbing activity.

SOURCE: Paleo Solutions, 2018; BLM, 2016

The Centerville and Price Creek formations are considered to have a Class 3 – Moderate potential for containing significant paleontological resources, while the Alluvial gravel receives a Class 2 – Low potential rating. The proposed Project alignment crosses each of these formations at some point. The proposed alignment crosses the Price Creek Formation at the most northern portion of the proposed alignment, near the Humboldt Substation. The Centerville Formation and the alluvium are crossed throughout the proposed alignment (Paleo Solutions, 2019.)

Paleontological Resources Records Search

The search of the paleontological records housed at the UCMP revealed six fossil localities within a two-mile buffer of the proposed Project alignment, three of which have been recorded within 500 feet of a Project component (Paleo Solutions, 2018). All three of the fossil localities are within the Centerville Formation, with the remaining three located within the Price Creek Formation and the Van Duzen Formation (the latter formation is not mapped at the surface, but rather underlies the Centerville Formation).

3.7.2 Regulatory Setting

Federal

Occupational Safety and Health Administration

The Occupational Safety and Health Act requires employers to comply with safety and health standards promulgated by the Occupational Safety and Health Administration (OSHA). OSHA Excavation standards, 29 Code of Federal Regulations (CFR) Part 1926, Subpart P, contain requirements for excavation and trenching operations.

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. In accordance with this act, the State Geologist established regulatory zones, called “Earthquake Fault Zones,” around the surface traces of active faults and published maps showing these zones. Each earthquake fault zone extends approximately 200 to 500 feet on either side of the mapped fault trace, because many active faults are complex and consist of more than one branch. There is the potential for ground surface rupture along any of the branches.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was passed in 1990 following the Loma Prieta earthquake to reduce threats to public health and safety and to minimize property damage caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones, and cities, counties, and other local permitting agencies to regulate certain development projects within these zones. The CGS Guidelines for Evaluating and Mitigating Seismic Hazards (Special Publication 117A) provides guidance for evaluating and mitigating seismic hazards. The CGS has completed delineations for the USGS quadrangles in which Project components are proposed.

California Building Code

The CBC, which is codified in Title 24 of the California Code of Regulations, Part 2, was promulgated to safeguard the public health, safety, and general welfare by establishing minimum standards related to structural strength, means of egress to facilities (entering and exiting), and general stability of buildings. The purpose of the CBC is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction. The California Building Standards Commission administers Title 24, and, by law, is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 or they are not enforceable. The provisions of the CBC apply to the construction, alteration, movement, replacement, repair, location, maintenance, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

While the Project does not propose to erect any buildings or structures that would be occupied by people, the Project remains under the purview of the CBC because the towers, poles, foundations, retaining walls, etc., associated with this Project are considered structures. The California Health and Safety Code defines a “structure” as including any piece of work artificially built or composed of parts joined together in some definite manner (Health and Safety Code §18908). Title 24 also states that the construction, installation, alteration, removal, repair, or replacement of any electrical system is regulated by CBC.

Chapter 18 of the CBC governs geotechnical investigations, including expansive soils (§1803); excavation, grading, and fills (§1804); load-bearing of soils (§1806); as well as foundations (§1808), shallow foundations (§1809), and deep foundations (§1810). Chapter 18 requires analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading, plus an evaluation of lateral pressures on basement and retaining walls, liquefaction and soil strength loss, and lateral movement or reduction in foundation soil-bearing capacity. It also addresses mitigation measures to be considered in structural design, which may include ground stabilization, selecting appropriate foundation type and depths, selecting appropriate structural systems to accommodate anticipated displacements, or any combination of these measures. The potential for liquefaction and soil strength loss must be evaluated for site-specific peak ground acceleration magnitudes and source characteristics consistent with the design earthquake ground motions (International Code Council [ICC], 2017).

For a given project, the preliminary geotechnical report based on the initial design is prepared prior to the CEQA document (as has been done for this project in the form of the Geotechnical Investigation by TRC) and to a level sufficient to support the CEQA document. The CEQA document analyzes the impacts with the understanding that subsequent to the certification of the CEQA document, the project applicant would complete the final design, including the preparation of a final geotechnical report. The final geotechnical report would include the results and recommendations of the preliminary geotechnical report, and add further detail if needed to address the final project design and relevant mitigation measures identified in the CEQA document (e.g., if a pole location moves in response to a mitigation measure to a location that was not studied in the preliminary report). In the case of the Project, the final geotechnical report would be in the form of a supplemental geotechnical report addressing specific geotechnical hazards that may impact the Project.

California Public Utilities Commission General Order 95 and 128

CPUC General Orders 95 and 128 apply to construction and reconstruction of overhead electric lines in California, which include requirements for communication lines. The replacement of poles, towers, or other structures is considered reconstruction and requires adherence to all strength and clearance requirements of these orders. For the purpose of recognizing relative hazards, lines are segregated into classes defined in CPUC Rule 20.6. These classes of lines and the relation of lines to each other and to objects over which they are constructed determine construction requirements.

Transmission line design must adhere to the National Electric Safety Code and guidance documents published by the Institute of Electrical and Electronics Engineers and American

Society of Civil Engineers (ASCE). ASCE 74, Guidelines for Electrical Transmission Line Structural Loading, states, “Transmission structures are not typically designed for vibration caused by earthquakes because these loads are less than that of wind/ice combinations.” The exception to this general rule occurs if the tower is built in liquefiable materials, in which case the materials may not support the weight of the tower and tower foundation during a seismic event.

CPUC General Order 128, Rules for Construction of Underground Electric Supply and Communication Systems, provides general standards for the construction of underground electric systems.

National Pollutant Discharge Elimination System (NPDES) Construction General Permit

Construction of the proposed Project would disturb more than one acre of land surface affecting the quality of stormwater discharges into waters of the U.S. The proposed Project would therefore be subject to the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ). The Construction General Permit regulates discharges of pollutants in stormwater associated with construction activity to waters of the U.S. from construction sites that disturb one or more acres of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface. The permit regulates stormwater discharges associated with construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines. See Section 3.10, Hydrology and Water Quality, for additional details.

Public Resources Code Section 5097.5 and Section 30244

State requirements for paleontological resource management are included in Public Resources Code Sections 5097.5 and 30244. Section 5097.5 prohibits unauthorized excavation, removal, destruction, injury, or defacing of a paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other paleontological feature, located on lands under the jurisdiction of a city, county, or other agency of the state without the permission of the agency. Section 30244 requires reasonable mitigation of adverse impacts to paleontological resources from development.

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction.” The discussion below presents local policies and regulations for informational purposes only; the CPUC does not consider these regulations “applicable” as that term is used in CEQA.

3.7.3 Applicant Proposed Measures

The following measures pertaining to geology and soils have been proposed by PG&E and would be implemented as part of the proposed Project.

APM GEO-1: Minimization of Construction in Soft or Loose Soils. Where soft or loose soils are encountered during project construction, appropriate measures will be implemented to avoid, accommodate, replace, or improve such soils. Depending on site-specific conditions and permit requirements, these measures may include excavating soft or loose soils and replacing them with engineered backfill materials, or installing matting in temporary work areas.

APM GEO-2: Reduction of Slope Instability during Construction. Existing natural or temporarily constructed slopes affected by construction or operations will be evaluated for stability. Grading plans will be designed to limit the potential for slope instability and minimize the potential for erosion.

APM PALEO-1: Unanticipated Potential Paleontological Resource. If significant paleontological resources are discovered during construction activities, the following procedures will be followed:

1. Stop work immediately within 100 feet.
2. Contact the designated project inspector and PG&E CRS immediately;
3. Protect the site from further impacts, including looting, erosion or other human or natural damage;
4. The PG&E CRS in tandem with CPUC will arrange for a qualified paleontologist to evaluate the discovery. The paleontologist will be responsible for developing the recovery strategy in tandem with PG&E and will lead the recovery effort, which will include establishing recovery standards, preparing specimens for identification and preservation, documentation and reporting, and securing a curation agreement from the approved agency; and,
5. Work may not resume within 100 feet of the find until approval by the paleontologist and PG&E CRS.

APM PALEO-2: Worker's Environmental Awareness Training. Moderate and potentially high sensitivity formations are identified within the PAL; therefore, PG&E will provide environmental awareness training on paleontological resources protection. This training may be administered as a stand-alone training or included as part of the overall environmental awareness training as required by the project. The training will include, at minimum, the following:

1. The types of fossils that could occur at the project site.
2. The types of lithologies in which the fossils could be preserved.
3. The procedures that should be taken in the event of a fossil discovery.
4. Penalties for disturbing paleontological resources.

APM WQ-1: Development and Implementation of SWPPP. Following project approval, PG&E will prepare and implement a SWPPP to minimize construction impacts on surface water and groundwater quality. The SWPPP will be designed specifically for the hydrologic setting of the proposed project (e.g., surface topography, etc.) The SWPPP will include procedures and standards to stabilize graded areas, reduce erosion, avoid release of hazardous materials and sediment to surface waters, and manage dewatering effluents. The SWPPP will identify BMPs and erosion and sediment control measures, such as straw wattles, water bars, covers, silt fences, storm drain inlet protection, mud trackout controls, and sensitive area access restrictions (e.g., flagging) that will be installed before the onset of winter rains or anticipated storm events to minimize impacts on surface water and groundwater.

Mulching, seeding, or other suitable stabilization measures will be used to protect exposed areas during construction activities, as necessary. Identified erosion and control measures will be installed prior to the start of construction activities and will be inspected and improved as needed as required by the Construction General Permit and stated in the SWPPP. The SWPPP will specify that temporary sediment control measures intended to minimize sediment transport from temporarily disturbed areas such as silt fences or wattles will remain in place until disturbed areas are stabilized. In areas where soil is temporarily stockpiled, soil will be placed in a controlled area and will be managed using industry standard stockpile management techniques. Where construction activities occur near a surface water body or drainage channel, the staging of construction materials and equipment and excavation spoil stockpiles will be placed and managed in a manner that minimizes the risk of sediment transport to the drainage. The SWPPP will identify areas where refueling and vehicle-maintenance activities and storage of hazardous materials will be permitted, if necessary.

A copy of the SWPPP will be provided to the CPUC for recordkeeping. The plan will be maintained and updated during construction as required by the Construction General Permit.

3.7.4 Environmental Impacts

Approach to Analysis

The following analysis considers the potential impacts to geology, soils, seismicity, and paleontological resources of the construction, operation and maintenance of the proposed Project. Impacts would be considered significant if they resulted in injury, structural collapse, unreparable facility or utility damage, severe service disruption, or loss of a paleontological resource. This analysis assumes that construction and design of Project components would utilize standard site preparation practices, engineering designs, and seismic safety techniques that are required under the CBC and CPUC General Orders 95 and 128 as well as other state and local geologic hazard regulations. Soil settlements, earthquake shaking, and/or liquefaction would not be considered significant in cases where structural damage would be minor, undetectable, repairable, or would otherwise not pose substantial risk to the public or the environment. Project components that repair or replace existing facilities that are old, deteriorated, built according to outdated building codes, or otherwise have structural impairments would be considered to have a beneficial impact with respect to geologic and seismic hazards.

Discussion

- a.i) Whether the Project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault: *NO IMPACT*.**

There are no Earthquake Fault Zones in the study area, as would be delineated on Alquist-Priolo Earthquake Fault Zoning Maps. There are active faults in the surrounding area. Project activities include reconductoring power lines, and replacing poles, and constructing new lattice steel towers. None of the proposed activities would increase the risk of exposure of people to loss, injury, or death involving rupture of a known fault. There would be no impact under this criterion.

Mitigation: None required.

- a.ii) Whether the Project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking: *LESS THAN SIGNIFICANT IMPACT*.**

Strong seismic ground shaking could occur in the study area because there are active fault zones near the Project. The geotechnical investigation performed by TRC identified strong seismic groundshaking as one of the primary geotechnical and geologic concerns within the Project alignment (TRC, 2018). The report recommends that, at minimum, the proposed improvements be designed in accordance with the seismic design criteria provided in the report.

While the Project would be located in a seismically active area, the new infrastructure would not be used for human occupancy, meaning that the project would not cause an indirect adverse effect by placing people on or under the project components for long periods of time. In addition, the Project components do not include injection or extraction of water or crude oil that could trigger a seismic event and thus, would not exacerbate the existing risk of seismic shaking or associated damage. All Project components would be designed and constructed consistent with CPUC GO 95 and the applicable sections of the CBC. Therefore, the impacts under this criterion would be less than significant.

Mitigation: None required.

- a.iii) Whether the Project would directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction: *LESS THAN SIGNIFICANT IMPACT*.**

The majority of Project components would replace and/or upgrade existing facilities in similar locations, including existing poles along the reconductoring route. As noted above, the Project would be designed consistent with CPUC GO 95 and applicable sections of the CBC, which would also reduce the risk from seismically-induced ground failures. The effects of seismically-induced ground failures are a direct result of ground shaking produced by earthquakes. However, the Geotechnical Investigation by TRC provides specific recommendation for the design and

construction of the foundations to withstand the effects of seismic-related ground failures, including liquefaction, which is required by CPUC GO 95 and the CBC. Additionally, APMs GEO-1 and GEO-2 would require the minimization of construction in soft or loose soils, as well as evaluation of natural or temporary slopes for stability. Adherence to APM GEO-1, APM GEO-2, and the design recommendations provided in the geotechnical investigation would reduce this impact to less than significant.

Mitigation: None required.

a.iv) Whether the Project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides: *LESS THAN SIGNIFICANT IMPACT.*

The DEIR for the City of Eureka General Plan Update indicates that the relatively flat terrane within the City limits is not susceptible to landslides. There are no regulatory landslide susceptibility maps available from the CGS or the USGS. Additionally, there are no historic landslides mapped within the Project area. Given the relatively flat terrane, there are no slopes that would be susceptible to landslides, and any temporarily constructed slopes would be evaluated for stability under APM GEO-2; therefore, the impact would be less than significant.

Mitigation: None required.

b) Whether the Project would result in substantial soil erosion or the loss of topsoil: *LESS THAN SIGNIFICANT IMPACT.*

The Project would include ground-disturbing construction activities, which could increase the risk of erosion or sediment transport. Total ground disturbance would be more than one acre. Construction would have the potential to result in soil erosion during excavation, grading, trenching, and soil stockpiling. Because the overall footprint of construction activities would exceed one acre, the Project would be required to comply with the Construction General Permit. This state requirement was developed to ensure that stormwater is managed and erosion is controlled on construction sites. Implementation of APM WQ-1 would require preparation and implementation of a SWPPP, which requires applications of BMPs to control run-on and runoff from construction work sites, per the Construction General Permit. The BMPs would include, but would not be limited to, physical barriers to prevent erosion and sedimentation, construction of sedimentation basins, limitations on work periods during storm events, use of infiltration swales, protection of stockpiled materials, and a variety of other measures that would substantially reduce or prevent erosion from occurring during construction. Compliance with these independently enforceable existing requirements would reduce the Project's potential impacts associated with soil erosion and loss of topsoil during construction to less than significant.

Mitigation: None required.

c) Whether the Project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse: *LESS THAN SIGNIFICANT IMPACT.*

As previously discussed, the proposed Project alignment is not susceptible to landslides. Subsidence and collapse are ground failures that can be caused by the extraction of groundwater or oil. The Project does not include the extraction of groundwater or oil. Liquefaction is discussed above in criterion a) iii, which concluded a less than significant impact related to liquefaction because the Project would be required to comply with CPUC GO 95 and applicable sections of the CBC. Additionally, the Project would be required to implement APM GEO-1, APM GEO-2, and the design recommendations provided in the Geotechnical Investigation by TRC, which is also required by the CBC. With compliance with existing regulations and implementation of the APMs the impacts related to unstable soils would be less than significant.

Mitigation: None required.

d) Whether the Project would be located on expansive or corrosive soil, creating substantial direct or indirect risks to life or property: *LESS THAN SIGNIFICANT IMPACT.*

Expansive Soils

Most of the Project alignment is not located on expansive soils. The silty clay soils along Ryan Slough are very poorly drained, and may exhibit expansive properties (NRCS, 2018c). As shown in Figure 2-5 in Chapter 2, Project Description, the work planned along Ryan Slough consists of replacing wood poles with light duty steel poles. This area also would be used as a staging area/landing zone. The Project would be installed in compliance with standard engineering and building practices common to construction projects throughout California. The remaining portions of the alignment would be constructed on soils with a low to moderate expansion potential and none of the Project components would include buildings or structures that would be occupied. Therefore, the impacts related to expansive soils would be less than significant.

Corrosive Soils

The NRCS Web Soil Survey and the Geotechnical Investigation report by TRC both identified soil corrosion potential throughout the region. The impacts associated with corrosive soils if present within the proposed Project alignment would be significant if action is not taken to address these risks. In response to these potential impacts, the Project would be required to comply with the applicable CBC sections, which include conducting a final geotechnical investigation to identify geotechnical hazards and providing recommendations to address those hazards. The Geotechnical Investigation report includes a recommendation to contract a qualified corrosion engineer to adequately assess and provide design requirements to address the corrosive soils in the Project area. Adherence to CBC requirements and recommendation provided in the Geotechnical Investigation report would reduce this impact to less than significant.

Mitigation: None required.

e) Whether the Project would have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water: *NO IMPACT.*

The Project would not include the use of septic tanks or any alternative wastewater disposal systems. For this reason, the Project would not introduce an environmental or public health hazard by building septic tanks or other wastewater disposal systems in soils that are incapable of adequately supporting such systems. Therefore, no impact would result.

f) Whether the Project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature: *LESS THAN SIGNIFICANT IMPACT.*

Construction-associated grading, excavation, and drilling for Project components could destroy paleontological resources. The loss of a unique paleontological resource or site that could yield information important to prehistory, or that embodies the distinctive characteristics of a type of organism, environment, period of time, or geographic region, would be a significant environmental impact. Direct impacts on paleontological resources primarily concern the potential destruction of nonrenewable paleontological resources and the loss of information associated with these resources. This includes the unauthorized collection of fossil remains. If potentially fossiliferous bedrock or surficial sediments are disturbed, the disturbance could result in the destruction of paleontological resources and subsequent loss of information.

For Project sites that are underlain by paleontologically sensitive geologic units, the greater the amount of ground disturbance, the higher the potential for significant impacts to paleontological resources. For Project sites that are directly underlain by geologic units with no paleontological sensitivity, there is no potential for impacts on paleontological resources unless sensitive geologic units which underlie the non-sensitive unit are also affected.

As described in Section 3.7.1, Environmental Setting, the Centerville and Price Creek formations have a moderate potential for paleontological resources, and fossil localities have been found in both formations. However, fossil recovery is most likely to occur when drilling with augers that are 3 feet or greater in diameter (Paleo Solutions, 2018)—the augers used during construction of new poles would be less than 3 feet in diameter. Augers used during construction of the new lattice steel towers would be 6 feet in diameter, but they are located in an area mapped as having a low potential for paleontological resources.

Regardless of the unlikelihood of fossil recovery during Project construction, to further reduce any potential impacts on paleontological resources, PG&E proposed APMs PALEO-1 and PALEO-2, which would require specific protocols for dealing with unanticipated discoveries and Worker's Environmental Training Awareness (WEAT). Implementation of APMs PALEO-1 and PALEO-2 would assure that potential impacts to paleontological resources would be less than significant.

Mitigation: None required.

3.7.5 References

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3.8 Greenhouse Gas Emissions

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
8. GREENHOUSE GAS EMISSIONS — Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.8.1 Environmental Setting

“Global warming” and “climate change” are common terms used to describe the increase in the average temperature of Earth’s near-surface air and oceans since the mid-20th century. Natural processes and human actions have been identified as impacting climate. The International Panel on Climate Change (IPCC) has concluded that variations in natural phenomena such as solar radiation and volcanoes produced most of the warming from pre-industrial times to 1950 and had a small cooling effect afterward. Since the 19th century however, increasing greenhouse gas (GHG) emissions concentrations resulting from human activity such as fossil fuel combustion, deforestation, and other activities are believed to be a major factor in climate change. GHGs in the atmosphere naturally trap heat by impeding the exit of solar radiation that has hit Earth and is reflected back into space – a phenomenon sometimes referred to as the “greenhouse effect.” Some GHGs occur naturally and are necessary for keeping Earth’s surface inhabitable. However, increases in the concentrations of these gases in the atmosphere during the last 100 years have trapped solar radiation and decreased the amount that is reflected back into space, intensifying the natural greenhouse effect and resulting in the increase of global average temperature.

Greenhouse Gas Emissions

Carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆) are the principal GHGs. When concentrations of these gases exceed historical concentrations in the atmosphere, the greenhouse effect is intensified. CO₂, CH₄, and N₂O occur naturally and are also generated through human activity. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas CH₄ results from off-gassing, natural gas leaks from pipelines and industrial processes, and incomplete combustion associated with agricultural practices, landfills, energy providers, and other industrial facilities. Other human-generated GHGs include fluorinated gases such as SFCs, PFCs, and SF₆, which have much higher heat-absorption potential than CO₂, and are byproducts of certain industrial processes.

CO₂ is the reference gas for climate change, as it is the GHG emitted in the highest volume. The effect that each of the GHGs have on global warming is the product of the mass of their emissions and their global warming potential (GWP). GWP indicates how much a gas is predicted to

contribute to global warming relative to how much warming would be predicted to be caused by the same mass of CO₂. For example, CH₄ and N₂O are substantially more potent GHGs than CO₂, with GWPs of approximately 30 and approximately 275 times that of CO₂, which has a GWP of 1.

In emissions inventories, GHG emissions are typically reported as metric tons of CO₂ equivalents (CO₂e). CO₂e are calculated as the product of the mass emitted of a given GHG and its specific GWP. While CH₄ and N₂O have much higher GWPs than CO₂, CO₂ is emitted in higher quantities and it accounts for the majority of GHG emissions in CO₂e, both from commercial developments and human activity in general. GHGs are global concerns, unlike criteria air pollutants or toxic air contaminants that are of regional and/or local concern.

Greenhouse Gas Sources

Anthropogenic GHG emissions in the United States are derived mostly from the combustion of fossil fuels for transportation and power production. Energy-related CO₂ emissions resulting from fossil fuel exploration and use account for approximately three-quarters of the human-generated GHG emissions in the United States, primarily in the form of CO₂ emissions from burning fossil fuels. More than half of the energy-related emissions come from large stationary sources, such as power plants; approximately one-third derive from transportation; and a majority of the remaining sources include: industrial processes, agriculture, commercial, and residential (USEPA, 2017a).

Statewide emissions of GHG from relevant source categories for 2011 through 2017 are summarized in **Table 3.8-1**. Specific contributions from individual air basins, such as the North Coast Air Basin, which encompasses the proposed Project site, are included in the emissions inventory but are not itemized by air basin. In 2017, California produced 424.1 million gross metric tons of CO₂e emissions. Transportation was the source of 41 percent of the state's GHG emissions, followed by industrial at 24 percent, electricity generation at 15 percent, commercial and residential sources at 17 percent, and agriculture and forestry and not specified comprised the remaining 8 percent (CARB, 2017).

TABLE 3.8-1
CALIFORNIA GHG EMISSIONS (MILLION METRIC TONS CO₂E)

Emission Inventory Category	2011	2012	2013	2014	2015	2016	2017	
Electricity Generation (In State)	41.26	51.17	49.62	51.79	49.98	42.35	38.57	9.1%
Electricity Generation (Imports)	46.95	44.58	40.08	36.84	33.98	26.35	24.00	5.7%
Transportation	166.78	166.24	165.82	167.39	170.91	173.31	174.31	41.1%
Industrial	100.65	101.68	104.48	105.07	102.79	101.04	101.14	23.8%
Commercial	20.73	21.11	21.64	21.37	22.05	23.18	23.26	5.5%
Residential	32.90	30.91	32.07	27.14	27.91	29.30	30.40	7.2%
Agriculture and Forestry	34.34	35.46	33.99	35.06	33.75	33.51	32.42	7.6%
Not Specified (Solvents & Chemicals)	0.26	0.27	0.25	0.24	0.18	0.24	0.17	9.1%
Total Gross Emissions	443.6	451.2	447.7	444.7	441.4	429.0	424.1	100.00%

NOTE: Values are for "Included Emissions" only

SOURCE: CARB, 2019.

3.8.2 Regulatory Setting

Federal

Clean Air Act

On April 2, 2007, in *Massachusetts v. USEPA* (549 US 497), the Supreme Court found that GHGs are air pollutants covered by the Clean Air Act. The Court held that the U.S. Environmental Protection Agency (USEPA) must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making such decisions, the USEPA is required to follow the language of Section 202(a) of the Clean Air Act, which obligates it to prescribe (and from time to time revise) standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines. The Supreme Court decision resulted from a petition for rulemaking under Section 202(a) filed by more than a dozen environmental, renewable energy and other organizations.

On April 17, 2009, the USEPA Administrator signed proposed “endangerment” and “cause or contribute” findings for GHGs under Section 202(a) of the Clean Air Act (USEPA, 2017b). The USEPA found that six GHGs, taken in combination, endanger both the public health and the public welfare of current and future generations. The USEPA also found that the combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the greenhouse effect as air pollution that endangers public health and welfare under Clean Air Act Section 202(a). Pursuant to 40 CFR Part 52, *Proposed Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule*, USEPA has mandated that Prevention of Significant Deterioration (PSD) and Title V requirements apply to facilities whose stationary source CO_{2e} emissions exceed 100,000 tons per year (USEPA, 2019). The proposed Project would not trigger PSD or Title V permitting under this regulation because it would generate less than 100,000 tons of CO_{2e} emissions per year.

U.S. Supreme Court Decision in Utility Air Regulatory Group v. USEPA

On June 23, 2014, the U.S. Supreme Court held that USEPA may not treat GHG emissions as an air pollutant for purposes of determining whether a source is a major source required to obtain a PSD or Title V permit. The Court also held that PSD permits that are otherwise required (based on emissions of other pollutants) may continue to require limitations on GHG emissions based on the application of Best Available Control Technology (BACT). In accordance with the Supreme Court decision, on April 10, 2015, the D.C. Circuit issued an amended judgment in *Coalition for Responsible Regulation, Inc. v. U.S. Environmental Protection Agency*, which vacated the PSD and Title V regulations under review in that case to the extent that they require a stationary source to obtain a PSD or Title V permit solely because the source emits or has the potential to emit GHGs above the applicable major source thresholds. The D.C. Circuit also directed USEPA to consider whether any further revisions to its regulations are appropriate, and if so, to undertake to make such revisions. In response to the Supreme Court decision and the D.C. Circuit’s amended

judgment, the USEPA intends to conduct future rulemaking action to make appropriate revisions to the PSD and operating permit rules (USEPA, 2019).

40 CFR Part 98. Use of Electric Transmission and Distribution Equipment

Pursuant to federal regulations (i.e., 40 CFR Part 98, Subpart DD) operators of certain electrical facilities, such as SF₆-containing circuit breakers, are required to report SF₆ emissions to the USEPA (USEPA, 2016). SF₆-containing circuit breakers associated with the proposed Project would be subject to reporting under this regulation.

State

A variety of statewide rules and regulations mandate the quantification and, if emissions exceed established thresholds, the reduction of GHGs. CEQA requires Lead Agencies to evaluate project-related GHG emissions and the potential for projects to contribute to climate change and to provide appropriate mitigation in cases where the Lead Agency determines that a project would result in a significant addition of GHGs to the atmosphere.

Executive Order S-3-05

In June 2006, Governor Arnold Schwarzenegger signed Executive Order S-3-05, which established the following statewide emission-reduction targets through the year 2050:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

This executive order does not contain any requirements that directly pertain to the proposed Project; however, future actions taken by the State of California to implement these goals may affect the Project, depending on the specific implementation measures that are developed.

Assembly Bill 32

California Assembly Bill (AB) 32, *the Global Warming Solutions Act of 2006*, required the California Air Resources Board (CARB) to establish a statewide GHG emissions cap for 2020 based on 1990 emission levels. AB 32 required CARB to adopt regulations that identify and require selected sectors or categories of emitters of GHGs to report and verify their statewide GHG emissions, and CARB is authorized to enforce compliance with the program. Under AB 32, CARB also was required to adopt a statewide GHG emissions limit equivalent to the statewide GHG emissions levels in 1990, which must be achieved by 2020. CARB established this limit in December 2007 at 427 million metric tons of CO₂e. This is approximately 30 percent below forecasted “business-as-usual” emissions of 596 million metric tons of CO₂e in 2020, and about 10 percent below average annual GHG emissions during the period of 2002 through 2004 (CARB, 2009). In the interest of achieving the maximum technologically feasible and cost-effective GHG emission reductions, AB 32 permits the use of market-based compliance mechanisms and requires CARB to monitor compliance with and enforce any rule, regulation, order, emission limitation, emissions reduction measure, or market-based compliance mechanism that it adopts.

Climate Change Scoping Plan (AB 32 Scoping Plan)

In December 2008, CARB approved the AB 32 Scoping Plan outlining the State's strategy to achieve the 2020 GHG emissions limit. The Scoping Plan estimates a reduction of 174 million metric tons CO₂e (about 191 million tons) from the transportation, energy, agriculture, forestry, and high climate-change-potential sectors, and proposes a comprehensive set of actions designed to reduce overall GHG emissions in California, improve the environment, reduce dependence on oil, diversify California's energy sources, save energy, create new jobs, and enhance public health. The Scoping Plan must be updated every five years to evaluate the mix of AB 32 policies to ensure that California is on track to achieve the 2020 GHG reduction goal. Appendices C and E of the adopted 2008 AB 32 Scoping Plan include a list of 39 recommended action measures to reduce GHG emissions (CARB, 2009). Of these measures, only one is directly relevant to the Project. Measure H-6, High GWP Gases, was designed to reduce emissions of SF₆ within the electric utility sector and at particle accelerators by requiring the use of best achievable control technology for the detection and repair of leaks, and the recycling of SF₆. CARB released its first Scoping Plan Update in May 2014 (CARB, 2014). There are no recommended actions identified in the Scoping Plan Update that are directly applicable to the proposed Project.

California Renewable Energy Programs

In 2002, California initially established its Renewables Portfolio Standard (RPS), with the goal of increasing the percentage of renewable energy in the State's electricity mix to 20 percent by 2017. State energy agencies recommended accelerating that goal, and California Executive Order S-14-08 (November 2008) required California utilities to reach the 33 percent renewable electricity goal by 2020, consistent with the AB 32 Scoping Plan. In April 2011, Senate Bill 2 of the First Extraordinary Session (SB X1-2) was signed into law. SB X1-2 expressly applies the new 33 percent RPS by December 31, 2020, to all retail sellers of electricity and establishes renewable energy standards for interim years prior to 2020. Senate Bill 350 (SB 350) of 2015 (Chapter 547, Statutes of 2015) increased the RPS to 50 percent by the year 2030.

Mandatory Reporting Requirements

Pursuant to California Code of Regulations Title 17, Sections 95100 through 95158, operations of large industrial stationary combustion and process emissions sources that emit 10,000 metric tons CO₂e or more per calendar year are required to report and verify their GHG emissions to CARB. As indicated in **Table 3.8-2**, below, the total amortized GHG emissions for the proposed Project would be 34 metric tons per year, which is below the AB 32 reporting threshold; therefore, the proposed Project would not be subject to the AB 32 mandatory reporting requirements.

Market-Based "Cap-and-Trade" Compliance Mechanism

AB 32 allows the use of market-based compliance mechanisms to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 also requires CARB to monitor compliance with and enforce any rule, regulation, order, emission limitation, emissions reduction measure, or market-based compliance mechanism that it adopts. In response, CARB adopted a cap-and-trade program that covers major sources of GHG emissions such as refineries and power plants. The program includes an annual emissions cap that declines over time. CARB's cap-and-trade program applies to facilities that would emit 25,000 metric tons or

more of CO₂e per year. Since the total amortized GHG emissions for the proposed Project are estimated at 34 metric tons per year, the cap-and-trade program would not apply to the proposed Project.

Senate Bill 97

In 2007, the California State Legislature passed SB 97, which required amendment of the CEQA Guidelines to incorporate analysis of, and mitigation for, GHG emissions from projects subject to CEQA. The amendments took effect March 18, 2010. The amendments added Section 15064.4 to the CEQA Guidelines, specifically addressing the potential significance of GHG emissions. Section 15064.4 calls for a “good faith effort” to “describe, calculate or estimate” GHG emissions and indicates that the analysis of the significance of any GHG impacts should include consideration of the extent to which the project would:

- Increase or reduce GHG emissions;
- Exceed a locally applicable threshold of significance; or
- Comply with “regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.”

The CEQA Guidelines also state that a project may be found to have a less-than-significant impact related to GHG emissions if it complies with an adopted plan that includes specific measures to sufficiently reduce GHG emissions (14 Cal. Code Regs. §15064(h)(3)). Importantly however, the CEQA Guidelines do not require or recommend a specific analytical methodology or provide quantitative criteria for determining the significance of GHG emissions.

Executive Order B-30-15 and SB 32

In April 2015, Governor Edmund G. Brown Jr. issued an executive order to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. Reaching this emission reduction target will make it possible for California to reach its ultimate goal of reducing emissions 80 percent under 1990 levels by 2050, as identified in Executive Order S-3-05. Executive Order B-30-15 also specifically addresses the need for climate adaptation and directs state government to:

- Incorporate climate change impacts into the State’s Five-Year Infrastructure Plan;
- Update the Safeguarding California Plan, the state climate adaption strategy to identify how climate change will affect California infrastructure and industry and what actions the state can take to reduce the risks posed by climate change;
- Factor climate change into state agencies’ planning and investment decisions; and
- Implement measures under existing agency and departmental authority to reduce GHG emissions (Office of the Governor, 2015).

Executive Order B-30-15 required CARB to update the AB 32 Climate Change Scoping Plan to incorporate the 2030 target. Subsequently, SB 32, which codifies the Executive Order’s 2030 emissions reduction target, was approved by the Governor on September 8, 2016. SB 32 requires CARB to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions to ensure that statewide GHG emissions are reduced to at least

40 percent below the 1990 statewide GHG emissions limit no later than December 31, 2030, the target established by Executive Order B-30-15. CARB recently adopted the 2017 Scoping Plan for achieving this goal, which takes into account the key programs associated with implementation of the AB 32 Scoping Plan—such as GHG reduction programs for cars, trucks, fuels, industry, and electrical generation—and builds upon, in particular, existing programs related to the Cap-and-Trade Regulation; the Low Carbon Fuel Standard; much cleaner cars, trucks, and freight movement; power generation for the State using cleaner renewable energy; and strategies to reduce methane emissions from agricultural and other wastes by using it to meet the State’s energy needs. The 2017 Scoping Plan also addresses, for the first time, GHG emissions from natural and working lands, including the agriculture and forestry sectors (CARB, 2017).

SB 350

SB 350 of 2015 (Chapter 547, Statutes of 2015) revises the state’s RPS Program by requiring utilities to procure at least 50 percent of the retail electricity from renewable sources by 2030. The law also requires the California Energy Commission to establish annual energy efficiency standards designed to double the electricity and natural gas savings for existing buildings by 2030.

Regulation for Reducing SF₆ Emissions from Gas Insulated Switchgear

The purpose of this regulation (17 Cal. Code Regs. §95350 et seq.) is to achieve GHG emission reductions by reducing SF₆ emissions from gas-insulated switchgear. Owners of such switchgear must not exceed maximum allowable annual emissions rates, which are reduced each year until 2020, after which annual emissions must not exceed 1.0 percent of the total SF₆ capacity of all of the owner’s active gas-insulated switchgear equipment. As defined by the regulation, the annual emissions rate equals the gas-insulated switchgear owner’s total annual SF₆ emissions from all active gas-insulated switchgear equipment divided by the average annual SF₆ nameplate capacity of all active gas-insulated switchgear equipment. Owners must regularly inventory gas-insulated switchgear equipment, measure quantities of SF₆, and maintain records of these for at least t years. Additionally, by June 1st each year, owners also must submit an annual report to CARB’s Executive Officer for emissions that occurred during the previous calendar year (CARB, 2016).

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction.” The discussion below presents local policies and regulations for informational purposes only; CPUC does not consider these regulations “applicable” as that term is used in CEQA.

3.8.3 Applicant Proposed Measures

The following measure pertaining to GHG emissions has been proposed by PG&E and would be implemented as part of the proposed Project.

APM GHG-1: Minimize GHG Emissions.

- Maintain construction equipment in proper working conditions in accordance with PG&E standards.
- Minimize unnecessary construction vehicle idling time. The project will apply a “common sense” approach to vehicle use, so that idling is reduced as far as possible below the maximum of 5 consecutive minutes allowed by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off.
- Maintain construction equipment in proper working conditions in accordance with PG&E standards.
- Minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible. Portable diesel-fueled construction equipment with engines of 50 horsepower or larger and manufactured in 2000 or later will be registered under the CARB Statewide Portable Equipment Registration Program.
- Minimize welding and cutting by using compression of mechanical applications where practical and within standards.
- Encourage the recycling of construction waste where feasible.

3.8.4 Environmental Impacts

Approach to Analysis

Significance Criteria

Some California air districts including the South Coast Air Quality Management District (SCAQMD) and the Bay Area Air Quality Management District (BAAQMD) have adopted, or have recommended for adoption, a significance threshold of 10,000 metric tons CO₂e per year for stationary source projects. This threshold was derived from emissions data from the four largest air districts in California and is based on the Executive Order S-3-05 GHG emissions reductions goal of 80 percent below 1990 levels by 2050, which is roughly equivalent to 90 percent below current levels by 2050. This emissions reduction goal goes beyond the AB 32 emissions reduction goal established for 2020. The emissions data suggests that approximately one percent of all stationary sources emit greater than 10,000 metric tons CO₂e per year and are responsible for 90 percent of GHG emissions. This significance threshold represents a capture rate of 90 percent of all new and modified stationary source-related projects. A 90 percent emissions capture rate means 90 percent of the total emissions from all new or modified stationary source projects would be subject to analysis in an environmental impact report prepared pursuant to CEQA, including analysis of feasible alternatives and imposition of feasible mitigation measures (SCAQMD, 2008).

The North Coast Unified Air Quality Management District (NCUAQMD) has not developed GHG thresholds for construction emissions. In the absence of NCUAQMD thresholds or guidance, to determine the significance of GHG construction emissions, guidance from SCAQMD and, for consistency with Section 3.3, Air Quality, numeric thresholds from

BAAQMD have been used for this determination. For construction-related GHGs, SCAQMD recommends that total emissions from construction be amortized over 30 years and added to operational emissions and then compared to the operation-based significance threshold (SCAQMD, 2008). The BAAQMD operational-related GHG threshold for projects other than stationary sources is 1,100 metric tons CO₂e per year (BAAQMD, 2017).

Methodology and Assumptions

Detailed construction-related GHG emissions were modeled by PG&E using the same methods described in Section 3.3, Air Quality. All GHG emissions were calculated for annual emissions in units of metric tons CO₂e per year.

Long-term operational emissions of CO₂e were not evaluated, as existing operations and maintenance activities would not change as a result of the proposed Project. GHG emission calculations in this document were based on conservative estimates of emissions to ensure presentation of a conservative environmental analysis.

PG&E provided construction-related GHG emissions estimates for the construction activities that would be associated with the proposed Project. CPUC's consultant, Environmental Science Associates (ESA), independently reviewed the emission estimates. PG&E estimated Project emissions using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 for off- and on-road construction activities and followed guidance from the Swiss Federal Office of Civil Aviation (FOCA, 2015) to calculate emissions from helicopter operations. See **Appendix C** for all emission factors and assumptions used to estimate GHG emissions that would be associated with construction of the proposed Project.

ESA found the emissions estimates to be adequate, with following exceptions. The short-term construction emissions estimates provided by PG&E do not include indirect emissions estimates associated with the proposed use of water for dust suppression required for access road and staging area development. Therefore, ESA supplemented PG&E's emissions estimates to include construction-related indirect short-term electricity usage-related GHG emissions associated with proposed water use using emission and use factors established by the California Energy Commission (CEC) and The Climate Registry (TCR) (CEC, 2005; TCR, 2019).

In addition, as discussed in Section 3.3, the helicopter calculations were adjusted by ESA to correct some minor errors.

Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment: *LESS THAN SIGNIFICANT IMPACT.*

Construction of the proposed Project would generate GHG emissions. Construction-related emissions would result from land-based construction equipment (including off-road construction equipment and machinery, and vehicular traffic generated by commuting workers and material hauling and disposal), and helicopter activity.

Following Project completion, the generation of construction emissions would cease. The Project's total estimated GHG emissions associated with construction activities are shown in **Table 3.8-2**. See Appendix C for all emission factors and assumptions used to estimate GHG emissions that would be associated with construction of the proposed Project.

TABLE 3.8-2
ESTIMATED CONSTRUCTION-RELATED GHG EMISSIONS

Emissions Source	CO ₂ e metric tons/year
Ground Equipment and Vehicles	735
Helicopter Operations	283
Water Use Indirect Emissions	2
Total GHG Emissions over 6 Months	1,020
Total Annual, amortized over 30 year	34
Significance threshold	1,100
Significant impact?	No

SOURCES: PG&E, 2019; ESA, 2019

As indicated in Table 3.8-2, total Project GHG construction emissions in the form of CO₂e would be approximately 1,020 metric tons. These emissions amortized over a 30-year period equal approximately 34 metric tons per year, which would be substantially less than the significance threshold of 1,100 metric tons of CO₂e per year. Therefore, the GHG emissions generated by the Project would not be cumulatively considerable and would not significantly contribute to global climate change. The impact would be less than significant.

Mitigation: None required.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases: *NO IMPACT*.

The proposed Project would not conflict with an applicable plan, policy, or regulation adopted to reduce GHG emissions. The minimal construction-related GHG emissions would not interfere with the long-term goal of AB 32 to reduce GHG emissions to 1990 levels by 2020 and to reduce GHG emissions to 40 percent below the 1990 level by 2030. Operation and maintenance of the Project would not differ from current operation and maintenance activities along the line. Therefore, the Project would not conflict with plans, policies, or regulations intended to reduce GHGs. There would be no impact.

3.8.5 References

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3.9 Hazards and Hazardous Materials

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
9. HAZARDS AND HAZARDOUS MATERIALS — Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

For the purposes of this analysis, the study area for the evaluation of potential impacts relating to hazardous materials is defined as the area comprised of all components of the proposed Project as well as areas that would be subject to temporary and/or permanent ground disturbance as a result of the Project or used for the transportation of materials, equipment, and workers.

Materials and waste may be considered hazardous if they are poisonous (toxic), can be ignited by open flame (ignitable), corrode other materials (corrosive), or react violently, explode, or generate vapors when mixed with water (reactive). The term “hazardous material” is defined in California Health and Safety Code Section 25501(n)(1) as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.

In some cases, past industrial or commercial uses on a site can result in spills or leaks of hazardous materials and/or petroleum products to the environment, thus resulting in soil and groundwater contamination. Federal and state laws require that soils having concentrations of contaminants such as lead, gasoline, or industrial solvents that are higher than certain regulatory standards must be

handled and disposed of as hazardous waste during excavation, transportation, and disposal. The California Code of Regulations, Title 22, Section 66261.20-24 contains technical descriptions of characteristics that would cause soil to be classified as a hazardous waste.

The use of hazardous materials and disposal of hazardous wastes are subject to numerous laws and regulations at all levels of government. See Section 3.9.2, Regulatory Setting.

3.9.1 Environmental Setting

Existing Use of Hazardous Materials

The Project would use fuels, oils and lubricants, solvents and cleaning solutions, typical of the operation. The Project would not use or generate acute hazardous materials (e.g., beryllium powder, cyanide and cyanide compounds, various banned organochlorine pesticides).

Hazardous Materials Database Records Search

To evaluate the potential presence of hazardous materials in soil and groundwater, a regulatory database search of sites within 0.25-mile of the proposed Project alignment was conducted to identify the documented use, storage, generation, and/or releases of hazardous materials and/or petroleum products. In addition, active contaminated sites that are currently undergoing monitoring and remediation were identified.

The Department of Toxic Substances Control (DTSC) EnviroStor database includes facilities that are authorized to treat, store, dispose, or transfer hazardous waste and includes the following site types: Federal Superfund sites (National Priority List; state response, including military facilities and State Superfund; voluntary cleanup; and school sites that are being evaluated by the DTSC for possible hazardous materials contamination. The EnviroStor database also contains current and historical information relating to permitted and corrective action facilities. The Regional Water Quality Control Board (RWQCB) GeoTracker database contains regulatory data about leaking underground storage tanks, Department of Defense sites, spills-leaks-investigations-cleanups, and landfill sites. The GeoTracker database also contains information about public drinking water wells. The DTSC is also responsible for updating the Hazardous Waste and Substances Site List (Cortese List). The list is a planning document used by several agencies and developers to comply with CEQA requirements. The Project alignment is not included on the Cortese List (DTSC, 2019a).

Based on a review of the EnviroStor and GeoTracker hazardous materials databases, the Project site is not listed on hazardous materials databases. There are three sites within 0.25-mile of the Project right-of-way that indicate a past or present hazardous materials release or contamination, as discussed below.

- PG&E Humboldt Bay Power Plant, 1000 King Salmon Avenue, Cleanup Program Site, Cleanup Status: Open – Site Assessment as of 11/30/1992; Active as of 04/27/2009. This site is a voluntary cleanup site with potential soil contamination. The potential contaminants of concern being lead, petroleum, polychlorinated biphenyls (PCBS), and polynuclear aromatic hydrocarbons (PAHS) (DTSC, 2019b). As of 2018, final target cleanup levels have not been

established. Ongoing remediation in conjunction with nuclear decommissioning and facility redevelopment has been designed to minimize/ eliminate the need for further remediation (DTSC, 2018). According to an Annual Estimation Letter from the North Coast RWQCB, there are plans for continued site assessment and remediation planned for 2019/2020 (RWQCB, 2019a). The Project footprint would not overlap the contamination from this site.

- Humboldt Petroleum, Inc., 3973 Walnut Drive, Eureka, CA 95501, Permitted Underground Storage Tank (UST), Leaking Underground Storage Tank (LUST) Cleanup Site (LACO, 2013). Cleanup Status: Open – Verification Monitoring. In 1990, six USTs were removed from the site. Remediation of the site has included soil excavation, soil vapor extraction, dual phase extraction and ozone sparging¹ (RWQCB, 2019b). As of March 25, 2019, the site was still in verification monitoring to determine the efficacy of ozone sparging remediation that was commenced in February of 2018 (RWQCB, 2019b). The Project footprint would not overlap the contamination from this site.
- Redwood Acres, 3750 Harris Street, Eureka, CA, 95503, Voluntary Cleanup. An unauthorized release from a former gasoline UST located in a parking area had impacted soil and groundwater (RWQCB, 2005, 2006). Past site activities include removal actions and the installation of monitoring and extraction wells. The RWQCB issued a No Further Action letter in 2006 indicating that the site has been cleaned up and poses no threat to surrounding properties or to groundwater.

Schools and Day Care Centers

Schools and day care centers are considered sensitive receptors that are more at risk from potential adverse effects associated with accidental release of hazardous materials because children are more susceptible than adults to these effects. Schools that are located within 0.25-mile of the Project alignment are listed in **Table 3.9-1**. Grant Elementary School is adjacent to the Project alignment at the intersection of Oak Street and G Street in Eureka.

TABLE 3.9-1
SCHOOLS WITHIN 0.25 MILE OF THE PROJECT SITE

School	Distance from Project	Address
Grant Elementary School	On Project alignment	3901 G Street – Eureka
Little People's Corner	0.04-mile north	3844 Walnut Street, #C – Eureka
Pine Hill Elementary School	0.25-mile west	5230 Vance Avenue – Eureka
South Bay Elementary	0.25-mile southwest	6077 Loma Avenue – Eureka

Airports

The closest airports to the proposed Project alignment are Murray Field Airport, which is approximately 1.25 miles north of Humboldt Substation, and Samoa Field Airport, which is approximately 2.1 miles west of the center of the Project alignment in Pine Hill. None of the

¹ The ozone-sparging process involves the injection of air-encapsulated ozone into groundwater, to provide *in-situ* treatment. Ozone sparging has been proven to be effective for remediation of halogenated volatile organic compounds (HVOCs) (Schroeder, 2001).

Project components falls within an Airport Land Use Compatibility Zone from either airport (Humboldt County, 2017a).

The most northern extent of the Project, including Humboldt Substation, is the closest Project component to the Murray Field Airport. According to the Existing (2005) and Future (2025) Noise Contours for Murray Field, the Project does not fall within the boundary of the Murray Field noise contours (Humboldt County, 2017b).

Treated Wood Waste

Utility poles are often chemically treated to protect against pest and environmental conditions. Common treated wood preservatives include one or more of the following: arsenic, chromium, copper, pentachlorophenol, and creosote; the intended use of the treated wood is the determining factor in the type of chemical preservative used (DTSC, 2019c).

When preservative-treated wood has reached the end of its service life, it is considered Treated Wood Waste (TWW), and is defined by the regulations as wood waste that meets the following criteria (DTSC, 2019c):

1. A hazardous waste
2. A hazardous waste solely due to the presence of a preservative that is registered in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (*FIFRA*; 7 U.S.C. §136 *et seq.*) for use as a wood preservative; and
3. Is not subject to regulation under the federal resource Conservation and Recovery Act (RCRA).

Treated Wood Waste may be disposed of in a hazardous waste landfill or in a composite-lined portion of a solid waste landfill approved by a state Regional Water Quality Control Board (DTSC, 2019c).

Wildfire Hazards

The Project alignment is located in areas designated as either a “moderate” or “high” fire hazard severity zone according to CAL FIRE (see **Figure 3.20-1** in Section 3.20, Wildfire). Approximately 1.5 miles are designated as “high” and 2 miles are designated “moderate.” The alignment is not located in a CPUC designated Fire Threat District.

3.9.2 Regulatory Setting

Federal

The primary federal agencies with responsibility for hazardous materials management include the U.S. Environmental Protection Agency (USEPA), U.S. Department of Labor Occupational Safety and Health Administration (Fed/OSHA), and the U.S. Department of Transportation (USDOT). Federal laws, regulations, and responsible agencies are summarized in **Table 3.9-2**.

**TABLE 3.9-2
FEDERAL LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT**

Classification	Law or Responsible Federal Agency	Description
Hazardous Materials Management	Community Right-to-Know Act of 1986 (also known as Title III of the Superfund Amendments and Reauthorization Act (SARA))	Imposes requirements to ensure that hazardous materials are properly handled, used, stored, and disposed of and to prevent or mitigate injury to human health or the environment in the event that such materials are accidentally released.
Hazardous Waste Handling	Resource Conservation and Recovery Act of 1976 (RCRA)	Under RCRA, the USEPA regulates the generation, transportation, treatment, storage, and disposal of hazardous waste from “cradle to grave.”
	Hazardous and Solid Waste Act	Amended RCRA in 1984, affirming and extending the “cradle to grave” system of regulating hazardous wastes. The amendments specifically prohibit the use of certain techniques for the disposal of some hazardous wastes.
Hazardous Materials Transportation	USDOT	USDOT has the regulatory responsibility for the safe transportation of hazardous materials. The USDOT regulations govern all means of transportation except packages shipped by mail (49 CFR).
	U.S. Postal Service (USPS)	USPS regulations govern the transportation of hazardous materials shipped by mail.
Occupational Safety	Occupational Safety and Health Act of 1970	Fed/OSHA sets standards for safe workplaces and work practices, including the reporting of accidents and occupational injuries (29 CFR §1910).
Aviation Safety	Federal Aviation Administration (FAA)	The FAA is the federal agency that identifies potential impacts related to air traffic and related safety hazards. Federal regulations in 14 CFR Part 77 establish standards and notification requirements for objects affecting navigable airspace. This notification serves as the basis for evaluating the effect of the proposed construction or alteration on operating procedures; determining the potential hazardous effect of the proposed construction on air navigation; identifying mitigating measures to enhance safe air navigation; and charting of new objects. Part 77 includes the establishment of imaginary surfaces (airspace that provides clearance of obstacles for runway operation) that allows the FAA to identify potential aeronautical hazards in advance, thus preventing or minimizing adverse impacts to the safe and efficient use of navigable airspace. The regulations identify three-dimensional imaginary surfaces through which no object should penetrate.

State and local agencies often have either parallel or more stringent rules than federal agencies. In most cases, state law mirrors or overlaps federal law and enforcement of these laws is the responsibility of the state or a local agency to which enforcement powers are delegated. For these reasons, the requirements of the law and its enforcement are discussed under either the State or local agency section.

State

The primary State agencies with responsibility for hazardous materials management in the region include the DTSC and the RWQCB within the California Environmental Protection Agency (Cal EPA), California Occupational Safety and Health Administration (Cal/OSHA), California Department of Health Services (CDHS), California Highway Patrol (CHP), and the California

Department of Transportation (Caltrans). State laws, regulations, and responsible agencies are summarized in **Table 3.9-3**.

TABLE 3.9-3
STATE LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT

Classification	Law or Responsible State Agency	Description
Hazardous Materials Management	Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program); CUPA (Health and Safety Code §25404 et seq)	In January 1996, Cal EPA adopted regulations, which implemented a Unified Program at the local level. The agency responsible for implementation of the Unified Program is called the Certified Unified Program Agency (CUPA). The Hazardous Materials Program of the Humboldt County Division of Environmental Health is the certified local CUPA for the Project.
	State Hazardous Waste and Substances List ("Cortese List"); DTSC, RWQCB, Humboldt County Division of Environmental Health	The Project site includes one hazardous materials site on the "Cortese List" compiled pursuant to Government Code section 65962.5 and referenced in Public Resources Code section 21092.6. The oversight of hazardous materials sites often involves several different agencies that may have overlapping authority and jurisdiction. For the onsite hazardous materials cases and issues, the RWQCB is the lead agency. Other cases may be overseen by the DTSC, the RWQCB, or the County.
Hazardous Waste Handling	California Hazardous Materials Release Response Plan and Inventory Law of 1985; CUPA	The California Hazardous Materials Release Response Plan and Inventory Law of 1985 (Business Plan Act) requires that businesses that store hazardous materials onsite prepare a Hazardous Materials Business Plan (HMBP) and submit it to the local CUPA, which in this case is the Hazardous Materials Program of the Humboldt County Division of Environmental Health.
	California Hazardous Waste Control Act; DTSC	Under the California Hazardous Waste Control Act (Health and Safety Code §25100, et seq.), DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste in California. The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; dictate the management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills. DTSC is also the administering agency for the California Hazardous Substance Account Act (Health and Safety Code §25300 et seq.), also known as the State Superfund law, which provides for the investigation and remediation of hazardous substances pursuant to State law.
	California Fire Code	The California Fire Code regulates the storage and handling of hazardous materials, including the requirement for secondary containment, separation of incompatible materials, and preparation of spill response procedures.
Hazardous Materials Transportation	Titles 13, 22, and 26 of the California Code of Regulations	Regulates the transportation of hazardous waste originating in and passing through the state, including requirements for shipping, containers, and labeling. Title 22 CCR section 67386 et seq. includes the Alternative Management Standards regulations for Treated Wood Waste. The regulations include storage, accumulation, shipment, and disposal requirements that are specific to the handling, transportation, and disposal of treated wood waste.
	CHP and Caltrans	These two state agencies are primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies.
Occupational Safety	Cal/OSHA	Cal/OSHA has primary responsibility for developing and enforcing workplace safety regulations in California. Because California has a federally approved OSHA program, it is required to adopt regulations that are at least as stringent as those found in Title 29 of the Code of Federal Regulations. Cal/OSHA standards are generally more stringent than federal regulations.

TABLE 3.9-3 (CONTINUED)
STATE LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT

Classification	Law or Responsible State Agency	Description
Occupational Safety (cont.)	Cal/OSHA regulations (Title 8 CCR)	Concerning the use of hazardous materials in the workplace require employee safety training, safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation.
Construction Storm Water General Permit (Construction General Permit; Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ)	RWQCB	Dischargers whose project disturbs one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the <i>NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities</i> (Construction General Permit; Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ). Construction activity subject to this permit includes clearing, grading, grubbing, and other disturbances to the ground such as excavation and stockpiling, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of a facility. The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes specific Best Management Practices (BMPs) designed to prevent sediment and pollutants from contacting stormwater from moving offsite into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management and good housekeeping, and are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area.
Underground Infrastructure	California Government Code Title 1. Section 4216-4216.9.	Section 4216-4216.9 "Protection of Underground Infrastructure" requires an excavator to contact a regional notification center (e.g., Underground Services Alert or Dig Alert) at least two days prior to excavation of any subsurface installations. Any utility provider seeking to begin a project that could damage underground infrastructure can call Underground Service Alert--Northern California. Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the project. Representatives of the utilities are then notified and are required to mark the specific location of their facilities within the work area prior to the start of project activities in the area.

Emergency Response

Pursuant to the Emergency Services Act (Government Code §8550 et seq.), California has developed an Emergency Plan to coordinate emergency services provided by federal, state, and local governmental agencies and private persons. Response to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services (OES). The OES coordinates the responses of other agencies, including the USEPA, CHP, California Department of Fish and Wildlife (CDFW), the RWQCBs (in this case, the North Coast RWQCB), the local air districts (in this case, the North Coast Unified Air Quality Management District) and local agencies. The State Emergency Plan defines the "policies, concepts, and general protocols" for the proper implementation of the California Standardized Emergency Management System (SEMS). The SEMS is an emergency management protocol that agencies within the State of California must follow during multi-agency response efforts whenever state agencies are involved.

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction.” The discussion below presents local policies and regulations for informational purposes only; the CPUC does not consider these regulations “applicable” as that term is used in CEQA.

Emergency Response

The Humboldt County Board of Supervisors established the Humboldt Operational Area (OA) and identified the Sheriff as Director of Emergency Services for the County. The County OES assists the Sheriff in controlling and directing the effort of the emergency organization of the County and is part of the Special Operations Division within the Sheriff’s Department (Humboldt County, 2015).

The County OES is responsible for maintaining the Humboldt County Emergency Operations Plan (2015), which serves to address the planned response to emergency situations affecting Humboldt County. The County OES also maintains response plans for specific disasters, which are used to determine the most appropriate evacuations routes based on the nature of the hazard.

3.9.3 Applicant Proposed Measures

The following measures pertaining to hazards and hazardous materials have been proposed by PG&E and would be implemented as part of the Project.

APM HAZ-1: Hazardous-Substance Control and Emergency Response. PG&E will implement its hazardous substance control and emergency response procedures to ensure the safety of the public and site workers during construction. The procedures identify methods and techniques to minimize the exposure of the public and site workers to potentially hazardous materials during all phases of project construction through operation. They address worker training appropriate to the site worker’s role in hazardous substance control and emergency response. The procedures also require implementing appropriate control methods and approved containment and spill-control practices for construction and materials stored on site. If necessary to store chemicals on site, they will be managed in accordance with all applicable regulations. Material safety data sheets will be maintained and kept available.

No known soil contamination was identified within the project site. In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are unearthed during site grading or excavation activities, the excavated soil will be tested, and if contaminated above hazardous waste levels, will be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil will require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations.

All hazardous materials and hazardous wastes will be handled, stored, and disposed of in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. The hazardous substance control and emergency response procedures include, but are not limited to, the following:

- Proper disposal of potentially contaminated soils.
- Establishing site-specific buffers for construction vehicles and equipment located near sensitive resources.
- Emergency response and reporting procedures to address hazardous material spills.
- Stopping work at that location and contacting the County Fire Department Hazardous Materials Unit immediately if visual contamination or chemical odors are detected. Work will be resumed at this location after any necessary consultation and approval by the Hazardous Materials Unit.

PG&E will complete a standard Emergency Action Plan Form as part of project tailboard meeting. The purpose of the form is to gather emergency contacts numbers, first aid location, work site location, and tailboard information.

APM HAZ-2: Worker Environmental Awareness Program (WEAP) for Health, Safety, and Environment. The WEAP will include the following components related to hazards and hazardous materials:

- PG&E health, safety, and environmental expectations and management structure.
- Applicable regulations.
- Summary of hazardous substances and materials that may be handled and/or to which workers may be exposed.
- Summary of the primary workplace hazards to which workers may be exposed.
- Overview of the measures identified in APM HAZ-1.
- Overview of the controls identified in the Stormwater Pollution Prevention Plan under APM HYDRO-1.

This measure will be coordinated with worker training required under APM BIO-1 and APM WQ-2.

APM HAZ-3: Fire Risk Management. PG&E will follow its standard fire risk management procedures, including safe work practices, work permit programs, training, and fire response. Project personnel will be directed to park away from dry vegetation. During fire season, all motorized equipment driving off paved or maintained gravel/dirt roads will have federal- or state-approved spark arrestors. All off-road vehicles will be equipped with a shovel and backpack pump filled with water and all fuel trucks will carry a large fire extinguisher with minimum rating of B:C.

APM TT-1: Temporary Traffic Controls. PG&E will obtain necessary transportation and encroachment permits from Caltrans and the local jurisdictions, as required, including those related to state route crossings and the transport of oversized load and certain materials, and will comply with permit requirements designed to prevent

excessive congestion or traffic hazards during construction. PG&E will develop road and lane closures or width reduction or traffic diversion plans as required by the encroachment permits. Construction activities that are in, along, or cross local roadways will follow best management practices and local jurisdictional encroachment permit requirements, which may include traffic controls such as signs, cones, and flaggers to minimize impacts on traffic and transportation in the project area. PG&E will coordinate with the Eureka Transit Service regarding the schedule and scope of construction activities that could impact bus routes crossed by the project alignment and will coordinate temporary relocation of bus stops if necessary.

APM TT-2: Air Traffic Control. PG&E will implement the following protocols related to helicopter use:

- PG&E will comply with all applicable FAA regulations regarding air traffic;
- PG&E will prepare a Helicopter Use Plan;
- Helicopter operators will coordinate all project helicopter operations with local airports before and during project construction; and
- PG&E will comply with FAA requirements for helicopter activities in residential areas that will reduce safety risks, and if necessary coordinate with residents that may need to temporarily evacuate their properties.

APM TT-3: Coordinate Road Closures with Emergency Service Providers and School Districts. At least 24 hours prior to implementing any road or lane closure, PG&E will coordinate with applicable emergency service providers and school districts in the project vicinity. PG&E will provide information regarding the road or lanes to be closed, the anticipated date, time, and duration of closures, and a contact telephone number.

3.9.4 Environmental Impacts

Discussion

- a) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials: *LESS THAN SIGNIFICANT IMPACT.***

Construction

Construction of the proposed Project would require the use of limited quantities of common hazardous substances, such as gasoline and diesel fuel, oils and lubricants, hydraulic fluid, and solvents to maintain vehicles and motorized equipment. An accidental spill of any of these substances could occur during handling and transfer from one container to another and could impact localized air, soil, water, and/or groundwater quality. Depending on the relative hazard of the material, an accidental spill could pose a hazard to people or the environment and would be considered potentially significant.

California state law requires construction contractors to prepare and implement a Hazardous Materials Business Plan (HMBP) describing procedures for transporting, storing, and using

hazardous materials in a safe and legal manner. The HMBP would include typical best management practices (BMPs), including spill response procedures such as use of absorbent pads for spill containment and specified locations for vehicle refueling. APM HAZ-1 would result in PG&E implementing its hazardous substance control and emergency response procedures to ensure the safety of the public and site workers during construction. APM HAZ-2 (Worker Environmental Awareness Program) would include an overview of the measures identified in APM HAZ-1 and also summarize other safety regulations to protect construction workers. Compliance with applicable federal, state, and local regulations, the State Construction General Permit and its required SWPPP, applicable BMPs, APM HAZ-1, and APM HAZ-2 would ensure that the Project's potential construction-phase impacts to the public or the environment through the routine transport, use, or disposal of hazardous materials would be less than significant.

The Project would replace numerous wood poles with steel poles. The wood poles to be removed have been treated with chemicals that likely include pentachlorophenol, creosote, or chromated copper arsenate. These treatment chemicals are used in pressure treated wood to protect wood from rotting due to insects and microbial agents. Additionally, the base of some of the treated wood poles may be wrapped with copper naphthenate paper. This paper has been accepted as a wood preservative for several decades and is typically used in non-pressure treatments of wood and other products. These chemicals, for certain uses and quantities, can be considered hazardous materials, and as a result, disposal of wood poles would require specific handling procedures prescribed by state and federal regulations (DTSC, 2011). In compliance with state and federal regulations, all non-reusable treated wood would be disposed of in a composite-lined portion of a municipal solid waste landfill approved by the RWQCB and, therefore, impacts related to Project construction would be less than significant.

Operation

Project operation and maintenance may require the limited use of certain materials such as fuels, oils and lubricants, solvents and cleaning solutions, and other chemical products that could pose a potential hazard to the public or the environment during routine transport, use, or disposal. PG&E currently maintains and operates existing electric transmission, power, distribution and substation facilities throughout the study area. Operation and maintenance activities for the Project would therefore be substantially similar to current conditions.

During operation and maintenance, vehicles and equipment used for routine inspections and emergency repair would require the use of fuel and lubricants. Routine maintenance activities would include washing or replacing insulators, repairing or replacing other hardware components, tree trimming, and brush and weed control. While the Project would not require long-term operational use, storage, treatment, disposal, or transport of significant quantities of hazardous materials, such materials would be used during maintenance activities.

Hazardous materials needed for maintenance activities would be stored and used in accordance with the product specifications and applicable regulations. Product specifications are described in detail on Safety Data Sheets (SDS), which accompany every batch of materials considered to be hazardous. Information in the SDS includes instructions on proper use and application of the material, accidental release measures, and handling and storage requirements. Hazard communication

programs regulations enforced by Cal/OSHA requires SDS be available to employees, and that employee information and training programs be documented. Applicable regulations specify storage and handling requirements such as proper container types and usage methods. Compliance with the measures prescribed in these regulations would ensure that potential impacts associated with hazardous product use would be adequately mitigated. Applicable regulations under Caltrans and the CHP described in Section 3.9.2, Regulatory Setting, regulate the transportation of hazardous materials and wastes, including container types and packaging requirements, as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers. All transport of hazardous materials for the Project would be undertaken in compliance with applicable laws, rules, and regulations, including the acquisition of required shipping papers, package marking, labeling, transport vehicle placarding, training, and registrations.

Compliance with applicable federal, state, and local regulations and the applicable BMPs, the HBMP, and APM HAZ-1 would ensure that potential impacts would be less than significant during Project operation and maintenance.

Mitigation: None required.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment: *LESS THAN SIGNIFICANT IMPACT.*

Construction

Accidents or mechanical failure involving heavy equipment could result in the accidental release of fuel, lubricants, hydraulic fluid, or other hazardous substances. These types of spills on construction sites are typically in small quantities, localized, and are cleaned up in a timely manner. Construction contractors are contractually responsible for their hazardous materials and are required under their contract to properly store and dispose of these materials in compliance with state and federal laws, including implementing a HBMP with procedures for transporting, storing, and using hazardous materials in a safe and legal manner. As discussed in Section 3.10, Hydrology and Water Quality, the Project would require coverage under the State Construction General Permit and its required SWPPP, which outlines BMPs to avoid runoff of stormwater and pollutants. The BMPs would include protection measures to contain a potential release and to prevent any such release from reaching an adjacent waterway or stormwater collection system. These would minimize the potential adverse effects to groundwater and soils.

Project construction activities would involve excavating, trenching, and grading, as well as the use of hazardous materials such as gasoline, diesel fuel, oils, lubricants, solvents, and glues. Implementation of APM HAZ-1 would reduce the risk of accidental release of or exposure to hazardous materials, by implementing its hazardous substance control and emergency response procedures to ensure the safety of the public and site workers during construction. As discussed in Section 3.9.1, the Project site is not listed as a hazardous materials site and there is no known soil contamination within the Project alignment. In addition, none of the three nearby hazardous materials sites would be able to affect the project site. Nonetheless, in the event that soils suspected of being contaminated are unearthed during site grading or excavation activities, the

excavated soil would be tested, and if contaminated above hazardous waste levels, would be contained and disposed of at a licensed waste facility.

Compliance with applicable federal, state, and local regulations and the applicable BMPs, the HBMP, APM HAZ-1, and APM HAZ-2 would ensure that potential impacts would be less than significant during Project construction.

Operation

As described under criterion a), operation and maintenance activities for the Project would be substantially similar to current conditions. Compliance with applicable federal, state, and local regulations and the applicable BMPs, HMBP, and APM HAZ-1 would ensure that potential impacts would be less than significant during Project operation and maintenance.

Mitigation: None required.

- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school: *LESS THAN SIGNIFICANT IMPACT.***

Construction

As shown in Table 3.9-1, four schools are located within 0.25-mile of the Project. No new schools are currently proposed in this area. Project construction would require the short-term use of various hazardous materials. Impacts from the routine use of hazardous materials are analyzed above in criterion a) and from accidental spills in criterion b). As noted under criterion b), compliance with existing federal, state, and local regulations and implementation of APM HAZ-1 and APM HAZ-2 would reduce the risk of emitting hazardous emissions or wastes to a less-than-significant level.

Operation

Project operation would not emit hazardous emissions or handle hazardous materials or substances. Because the Project would comply with applicable federal, state, and local regulations and the applicable BMPs and HMBP, and APM HAZ-1 the potential impacts would be less than significant during Project operation and maintenance.

Mitigation: None required.

- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment: *NO IMPACT.***

None of the Project components would be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, referred to as the Cortese List. There would be no impact under this criterion.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area: *LESS THAN SIGNIFICANT IMPACT.***

Construction and Operation

The Project alignment is not within any airport land use plan. The closest airport is Murray Field Airport approximately 1.25 miles north of the Humboldt Substation; Samoa Field Airport is approximately 2.1 miles west of the center of the Project alignment in Pine Hill. The most northern extent of the Project, including Humboldt Substation, is the closest Project component to the Murray Field Airport. According to the Existing (2005) and Future (2025) Noise Contours for Murray Field, the Project does not fall within the boundary of any of the Murray Field noise contours (Humboldt County, 2017b). Therefore, the Project would not result in a safety hazard or excessive noise related to being in proximity to an airport, and the impact would be less than significant.

Some Project work would include the use of helicopters to transport equipment, pole and tower materials, and construction workers from helicopter landing zones to sites along the alignment. While most of the helicopter landing zones are located away from sensitive receptors with the intent to reduce impacts to receptors, the landing zone located adjacent to King Salmon Avenue towards the southern end of the Project alignment would be located within 100 feet of residences. Impacts related to helicopter safety and noise generated by helicopters are discussed in detail in Section 3.13, Noise.

As required by APM TT-2, prior to construction, PG&E would prepare a Helicopter Use Plan and submit it to the CPUC to identify the specific flight paths and types of helicopters to be used. All applicable Federal Aviation Administration regulations regarding helicopter use would be followed during Project construction per APM TT-2. Additionally, PG&E would implement APM NOI-3, which would address notification requirements for sensitive receptors within 300 feet of areas where helicopters would be used for construction. Therefore, the Project would result in a less than significant impact.

Mitigation: None required.

- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan: *LESS THAN SIGNIFICANT IMPACT.***

Construction

The Emergency Operations Plan for Humboldt County does not include any specific evacuation routes; these would be identified and coordinated by local law enforcement and emergency service responders as needed during an emergency situation. The roads that would likely be utilized are public ground transportation routes and Project construction could affect the traffic in these areas by adding congestion to the roads or reducing the capacity of a given roadway. APM TT-1 includes implementation of traffic control measures that would be used during construction to ensure safety and minimize congestion, and the implementation of APM TT-3 would result in PG&E coordinating with local agencies in the event of an emergency, to allow access for

emergency vehicles and equipment. The likelihood that construction would impair or physically interfere with emergency response teams or an evacuation plan is low and would be easily remedied by moving the Project vehicles or equipment out of the way. Therefore, this potential impact would be less than significant.

Operation

As described under criterion a), operation and maintenance activities for the Project would be substantially similar to current conditions. Therefore, the Project would not introduce substantially different or new operation and maintenance activities that could result in impacts on emergency response plans or emergency evacuation plans. As a result, the impact from operation and maintenance would be less than significant.

Mitigation: None required.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires: *LESS THAN SIGNIFICANT IMPACT.*

Portions of the Project alignment are located in areas designated as “moderate” or “high” fire hazard severity zone. Please see Section 3.20, Wildfire, for a detailed discussion of the Project’s potential to expose people or structures to a significant risk of loss, injury, or death involving wildland fires. As explained in that section, this impact would be less than significant with implementation of APMs WF-1, WF-2, WF-3, and HAZ-3.

Mitigation: None required.

3.9.5 References

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Humboldt County, 2017a. 2017 Humboldt County General Plan, Land Use Designation Maps: Central Humboldt – for Indianola/Myrtle town and Southern Eureka. October 2017. Map. Scale 1:28,000.

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RWQCB, 2019b. Site Remediation and Workplan for Well Destruction for Humboldt Petroleum. Dated March 25, 2019.

3.10 Hydrology and Water Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
10. HYDROLOGY AND WATER QUALITY — Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk or release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.10.1 Environmental Setting

The Project is located within Humboldt County and the City of Eureka, west of the southern end of the Klamath Mountains and at the north end of the Coast Range geomorphic province.¹ Along the coast, the stream valleys are broad, and elevated flat or gently rolling terraces characterize the topography. Eureka is located on the northern California coast, generally characterized by cool summers with frequent fog and mild winters with substantial rain. Rainfall is commonly experienced every month, although 90 percent of seasonal total rainfall falls from October through April; seasonal totals average about 40 inches in Eureka.

Surface Water Hydrology

Humboldt County is part of the State Water Resources Control Board's North Coast Hydrologic Basin (Planning Area 1), which includes all of the basins draining into the Pacific Ocean from the

¹ A geomorphic province is a naturally defined region that has a distinct landscape or landform.

Oregon border south through the Russian River Basin. The Project is entirely within the Eureka Plain watershed (specifically, the Elk River and Freshwater Creek watersheds) (Humboldt County, 2017). The Eureka Plain watershed encompasses Humboldt Bay and the watersheds that drain into Humboldt Bay, including Jacoby, Freshwater, Salmon Creek, and Elk River. The Project alignment crosses the Buhne Slough and Elk River at the most southern portion of the Project, Martin Slough at the central portion of the alignment, and crosses Freshwater Creek and Ryan Slough at the most northern extent.

Groundwater

The Project is within the Eureka Plain Groundwater Basin. The Eureka Plain Groundwater Basin is bounded by the Little Salmon Fault to the south, Humboldt Bay and Arcata Bay to the west and northwest, and by Wildcat series deposits on the east (Department of Water Resources [DWR], 2004). DWR classified the Eureka Plain Groundwater Basin as a very-low priority (DWR, 2019); therefore, there is no Groundwater Sustainability Agency (GSA) set up for this groundwater basin, per California Water Code Section 10933(B). Additionally, there are no known groundwater management plans, groundwater ordinances, or basin adjudications (DWR, 2004).

Groundwater was inferred at depths of 3.5, 5.5, and 30 feet in Cone Penetration Tests (CPTs) 1, 2, and 4, respectively, in the Preliminary Geotechnical Report based on pore pressure dissipation measurements. Groundwater was undetermined in CPT-3 (TRC, 2018).

Flooding

Most of the Project area would be located outside flood hazard zones as designated by the Federal Emergency Management Agency (FEMA) (FEMA, 2019). However, portions of the Project alignment would be located in an area mapped within the 1 percent annual chance (100-year) flood zone. Approximately 3 miles of the Project is located within a Tsunami Inundation Zone, particularly the areas nearest to Humboldt Bay and Arcata Bay. The coastal areas are also within seiche hazard zones (CGS, 1980).

3.10.2 Regulatory Setting

Federal and State

Federal Clean Water Act

The federal Clean Water Act and subsequent amendments, under the enforcement authority of the U.S. Environmental Protection Agency (USEPA), was enacted “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” The Clean Water Act gave the USEPA the authority to implement pollution control programs such as setting wastewater standards for industry. In California, implementation and enforcement of the National Pollutant Discharge Elimination System (NPDES) program is conducted through the California State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs). The Clean Water Act also sets water quality standards for surface waters and established the NPDES program to protect water quality. Under Section 402 of the Act, discharge of pollutants is prohibited

unless the discharge is in compliance with an NPDES permit. The NPDES program requires all facilities that discharge pollutants into waters of the United States to obtain a permit. The discharge permit provides limitations on pollutant concentrations to protect the water quality of the receiving waters. NPDES permits for wastewater and industrial discharges specify discharge prohibitions and effluent limitations and also include other provisions (such as monitoring and reporting programs) deemed necessary to protect water quality.

Basin Plan - Beneficial Use and Water Quality Objectives (Clean Water Act §303)

The Project would be located within the jurisdiction of the North Coast Regional Water Quality Control Board (Region 1). Region 1 is responsible for the protection of the beneficial uses of waters within the coastal watersheds from the Russian River Basin in northern Sonoma County north to the Oregon border. Region 1 is tasked with implementing the adopted Water Quality Control Plan for the North Coast Region (Basin Plan) through planning, permitting, and enforcement of established water quality objectives (see **Table 3.10-1**). In accordance with state policy for water quality control, Region 1 employs a range of beneficial use definitions for surface waters, groundwater basins, marshes, and mudflats that serve as the basis for establishing water quality objectives and discharge conditions and prohibitions. The Basin Plan has identified existing and potential beneficial uses supported by the key surface water drainages throughout its jurisdiction. The existing beneficial uses designated in the Basin Plan for surface and groundwater in study area include: freshwater replenishment, groundwater recharge, preservation of rare and endangered species, recreation, spawning habitat, and multiple other beneficial uses, as shown in Table 3.10-1.

TABLE 3.10-1
BENEFICIAL USES OF WATER BODIES AT THE PROJECT SITE AND SURROUNDING AREAS

Surface Water Body	Existing Beneficial Uses
Jacoby Creek	AGR, COLD, COMM, CUL, EST, FRSH, GWR, IND, MIGR, MUN, NAV, PRO, RARE, REC1, REC2, SPWN, WILD
Freshwater Creek	AGR, COLD, COMM, CUL, EST, FRSH, GWR, IND, MIGR, MUN, NAV, PRO, RARE, REC1, REC2, SPWN, WILD
Elk River	AGR, COLD, COMM, EST, FRSH, GWR, IND, MIGR, MUN, NAV, PRO, RARE, REC1, REC2, SPWN, WILD
Salmon Creek	AGR, COLD, COMM, CUL, EST, FRSH, GWR, IND, MIGR, MUN, NAV, PRO, RARE, REC1, REC2, SPWN, WILD
Humboldt Bay	AGR, COLD, COMM, CUL, EST, FRSH, IND, MAR, MIGR, MUN, NAV, PRO, RARE, REC1, REC2, SHELL, SPWN, WILD

Beneficial Uses Key:

AQUA (Aquaculture) AGR (Agricultural Supply); COLD (Coldwater Habitat); COMM (Commercial and Sport fishing); CUL (Native American Culture); EST (Estuarine Habitat); FRSH (Freshwater Replenishment); GWR (Groundwater Recharge); IND (Industrial Service Supply); MIGR (Migration of Fish or Aquatic Organisms); MUN (Municipal and Domestic Supply); NAV (Navigation); PRO (Industrial Process Water Supply); RARE (Preservation of Rare and Endangered Species); REC-1 (Body Contact Recreation); REC-2 (Non-contact Recreation); SPWN (Spawning, Reproduction and/or Early Development); WARM (Warm Freshwater Habitat); WILD (Wildlife Habitat).

SOURCE: RWQCB, 2018

National Pollutant Discharge Elimination System Program Clean Water Act Section 402

Under Clean Water Act Section 402, the National Pollutant Discharge Elimination System (NPDES) storm water permitting program controls water pollution by regulating point sources of pollution to waters of the United States. The North Coast RWQCB administers the NPDES program in Humboldt County, as discussed below.

NPDES General Permit for Discharges of Stormwater Associated with Construction Activities (Order 2009-0009-DWQ)

Because the Project would result in the disturbance of 1.0 acre or more of soil, it would be subject to the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ), commonly referred to as the Construction General Permit. The permit regulates storm water discharges associated with construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines.

The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes specific Best Management Practices (BMPs) designed to prevent sediment and other pollutants from contacting storm water and from moving offsite into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management and good housekeeping, and are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area. Routine inspection of all BMPs is required under the provisions of the Construction General Permit. In addition, the SWPPP is required to contain a visual monitoring program and a chemical monitoring program for non-visible pollutants.

A SWPPP would be implemented for the Project and at a minimum, would include:

- Description of construction materials, practices, and equipment storage maintenance;
- List of pollutants likely to contact storm water and site specific erosion and sedimentation control practices;
- List of provisions to eliminate or reduce discharge of materials to storm water;
- BMPs for fuel and equipment storage;
- Non-storm water management measures, such as installing specific discharge controls during activities such as paving operations and vehicle and equipment washing and fueling; and
- Commitment that equipment, materials, and workers would be available for rapid response to spills and/or emergencies. All corrective maintenance or BMPs would be performed as soon as possible, depending upon worker safety.

The SWPPP provides specific construction-related BMPs to prevent soil erosion and loss of topsoil. BMPs implemented could include, but would not be limited to: physical barriers to prevent erosion and sedimentation, construction of sedimentation basins, limitations on work periods during storm events, use of swales, protection of stockpiled materials, and a variety of

other measures that would substantially reduce or prevent erosion from occurring during construction. Post-construction requirements necessitate that construction sites be restored to pre-project hydrological conditions to ensure that the physical and biological integrity of aquatic ecosystems are sustained in their existing condition.

In addition to storm water discharges, the Construction General Permit also covers other non-storm water discharges including irrigation of vegetative erosion control measures, water to control dust, uncontaminated groundwater from dewatering, and other discharges not subject to a separate general NPDES permit adopted by the RWQCB. The discharge of non-storm water is authorized under the following conditions:

- The discharge does not cause or contribute to a violation of any water quality standard;
- The discharge does not violate any other provision of the General Permit;
- The discharge is not prohibited by the applicable Basin Plan;
- The discharger has included and implemented specific BMPs required by the General Permit to prevent or reduce the contact of the non-storm water discharge with construction materials or equipment.
- The discharge does not contain toxic constituents in toxic amounts or (other) significant quantities of pollutants;
- The discharge is monitored and meets the applicable numeric action levels; and
- The discharger reports the sampling information in the SWPPP Annual Report.

Federal Emergency Management Agency (FEMA)

The Federal Emergency Management Agency (FEMA) determines flood elevations and floodplain boundaries and distributes the flood insurance rate maps used in the National Flood Insurance Program. These maps identify the locations of special flood hazard areas, including 100-year floodplains (i.e., areas that would have a 1 percent annual chance of flooding).

Federal regulations governing development in a floodplain are set forth in Title 44, Part 60 of the Code of Federal Regulations. Those regulations enable FEMA to require municipalities participating in the National Flood Insurance Program to adopt certain flood hazard reduction standards for construction and development in 100-year floodplains.

California Fish and Game Code Section 1602

Section 1602 of the Fish and Game Code protects the natural flow, bed, channel, and bank of any river, stream, or lake under the jurisdiction of the California Department of Fish and Wildlife (CDFW). For projects affecting the bed, bank, or flow of water under CDFW jurisdiction, applicants must submit a notification of lake or streambed alteration to CDFW. CDFW may issue a Lake and Streambed Alteration Agreement if it determines that the activity may substantially adversely affect fish and wildlife resources.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, the SWRCB has authority over waters of the State and water quality. The RWQCBs have local and regional authority. The Project is proposed in an area under the jurisdiction of the North Coast RWQCB. The North Coast RWQCB prepares and periodically updates the Basin Plan, described above. Pursuant to the Clean Water Act NPDES program, the Porter-Cologne Act also delegates the authority to the RWQCBs to issue NPDES permits.

Waste Discharge Requirements

Actions that involve or are expected to involve discharge of waste may be subject to waste discharge requirements (WDR) under the Porter-Cologne Act. Chapter 4, Article 4 of the Act (Water Code §§13260-13274) states that persons discharging or proposing to discharge waste that could affect the quality of waters of the State (rather than into a community sewer system) shall file a Report of Waste Discharge with the applicable RWQCB.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act of 2014 (SGMA, Water Code §10723) provides a framework for sustainable management of groundwater resources. Sustainable groundwater management means the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results. Undesirable results in this context are one or more of the following:

- Chronic lowering of groundwater levels
- Significant and unreasonable reduction of groundwater storage
- Significant and unreasonable seawater intrusion
- Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies
- Significant and unreasonable land subsidence that substantially interferes with surface land uses
- Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water

In groundwater basins designated by DWR as medium and high priority, local public agencies and locally-controlled groundwater sustainability agencies (GSAs) are required to develop and implement groundwater sustainability plans (GSPs) or alternatives to GSPs. The State has designated the Eureka Plain Groundwater Basin as very-low priority groundwater basin within the context of SGMA. Therefore, a GSP is not required for this basin.

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, “Local jurisdictions acting

pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction." The discussion below presents local policies and regulations for informational purposes only; the CPUC does not consider these regulations "applicable" as that term is used in CEQA.

3.10.3 Applicant Proposed Measures

The following measures pertaining to hydrology and water quality have been proposed by PG&E and would be implemented as part of the Project.

APM BIO-2: General Resource Protection Measures. This APM consists of the following components:

- *Litter and trash management.* All food scraps, wrappers, food containers, cans, bottles, and other trash will be removed from the site daily.
- *Parking.* Vehicles and equipment will be parked on pavement, existing roads, developed areas, or approved construction work areas.
- *Route and speed limitations.* Vehicles will be confined to established roadways or previously disturbed roadways and pre-approved access roads, overland routes, and construction work areas. Access routes and temporary construction work areas will be limited to the minimum necessary to achieve the project goals. Vehicular speeds will be limited to 15 miles per hour on unpaved roads.
- *Maintenance and refueling.* All equipment will be maintained to avoid leaks of automotive fluids such as fuels, solvents, or oils. All refueling and maintenance of vehicles and other construction equipment will be restricted to designated staging areas located at least 100 feet from any down-gradient aquatic habitat, unless otherwise isolated from habitat by secondary containment. Proper spill prevention and cleanup equipment will be maintained in all refueling areas.
- *Hazardous materials spills.* Emergency spill response and cleanup kits will be readily available for immediate containment and cleanup of an accidental spill. Construction crews will be trained in safe handling of hazardous materials and cleanup responsibilities. Any spills into aquatic habitat will be reported to the CPUC, USACE, State Water Resources Control Board, and the California Coastal Commission (if within the coastal zone) within 24 hours.
- *Pets and firearms.* No pets, hunting, open fires (such as barbecues), or firearms will be permitted at the project site.
- *Reporting and communication.* The PG&E project biologist will be responsible for immediately reporting any capture and relocation, or inadvertent harm, entrapment, or death of a federally or state listed species under ESA or CESA, respectively to the USFWS and CDFW, respectively.
- *Restore temporarily disturbed habitats.* All habitat areas for special-status species that are temporarily disturbed as a result of project activities will be restored upon completion of construction. Disturbed areas will be restored to pre-project conditions in coordination with land owners and in compliance with resource agency permit

conditions. Tidal marsh areas will be allowed to passively restore or as otherwise required by resource agency permit requirements.

- *Erosion control materials.* Only tightly woven netting or similar material will be used for all geo-synthetic erosion control materials such as coir rolls and geo-textiles. No plastic monofilament matting will be used.
- *Minimize grading and vegetation removal along access roads and construction work areas, to the extent feasible.* PG&E will only trim, clear, or remove vegetation as necessary to establish the access routes and allow equipment use. Trees will be directionally felled away from sensitive biological resource areas, and if that is not possible, removed in sections. Damage to adjacent trees will be avoided to the extent possible.
- *Weed management.* Vehicles and construction equipment will be cleaned of mud and dirt on site at a PG&E wash facility or otherwise approved wash-down location as needed to minimize transport of weed plant parts or seed. Vehicles will also be cleaned at the completion of the project or when off-road use for that vehicle has been completed.

APM WQ-1: Development and Implementation of a SWPPP. Following project approval, PG&E will prepare and implement a SWPPP to minimize construction impacts on surface water and groundwater quality. The SWPPP will be designed specifically for the hydrologic setting of the proposed project (e.g., surface topography, etc.). The SWPPP will include procedures and standards to stabilize graded areas, reduce erosion, avoid release of hazardous materials and sediment to surface waters, and manage dewatering effluents. The SWPPP will identify BMPs and erosion and sediment control measures, such as straw wattles, water bars, covers, silt fences, storm drain inlet protection, mud trackout controls, and sensitive area access restrictions (e.g., flagging) that will be installed before the onset of winter rains or anticipated storm events to minimize impacts on surface water and groundwater.

Mulching, seeding, or other suitable stabilization measures will be used to protect exposed areas during construction activities, as necessary. Identified erosion and control measures will be installed prior to the start of construction activities and will be inspected and improved as needed as required by the Construction General Permit and stated in the SWPPP. The SWPPP will specify that temporary sediment control measures intended to minimize sediment transport from temporarily disturbed areas such as silt fences or wattles will remain in place until disturbed areas are stabilized. In areas where soil is temporarily stockpiled, soil will be placed in a controlled area and will be managed using industry standard stockpile management techniques. Where construction activities occur near a surface water body or drainage channel, the staging of construction materials and equipment and excavation spoil stockpiles will be placed and managed in a manner that minimizes the risk of sediment transport to the drainage. The SWPPP will identify areas where refueling and vehicle-maintenance activities and storage of hazardous materials will be permitted, if necessary.

A copy of the SWPPP will be provided to the CPUC for recordkeeping. The plan will be maintained and updated during construction as required by the Construction General Permit.

APM WQ-2: Worker Environmental Awareness Training (WEAP) Development and Implementation. Worker environmental awareness training will communicate environmental issues and appropriate work practices specific to the project. The WEAP will include applicable portions of the SWPPP, including spill prevention and response measures, groundwater handling measures, and proper BMP implementation. The training will emphasize safe handling of hazardous materials, site-specific physical conditions to improve hazard prevention (e.g., identification of flow paths to the nearest water bodies), and a review of all site-specific water quality requirements.

3.10.4 Environmental Impacts

Approach to Analysis

This impact discussion assesses impacts on hydrology and water quality based on the potential for the Project to result in physical hydrologic or hydrogeologic changes during construction or operation, using existing site conditions as a baseline for comparison. While land disturbance associated with Project activity would progress along the Project alignment and may not occur at one time, for purposes of this analysis it is assumed that total land disturbance would occur at once.

Discussion

- a) **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality: *LESS THAN SIGNIFICANT IMPACT.***

Construction

Water quality impacts would most likely occur during construction and installation of towers and replacement poles. Construction could cause erosion that may contaminate runoff primarily as a result of ground disturbance, grading, and removal of vegetation, and during the preparation of construction staging areas and new access roads. In addition to impacts from erosion, contamination from fuels or other hazardous materials used during construction could also adversely affect water quality. Dewatering may be necessary during excavation for the drilled foundations (see Section 2.7.7) planned for the proposed lattice steel towers. The geotechnical investigation conducted for the Project indicated groundwater levels ranging from 3.5 to 30 feet below ground surface (TRC, 2018). Dewatered groundwater could affect water quality if it is not adequately treated or controlled.

PG&E would be required to obtain coverage for the Project under the NPDES Construction General Permit and adhere to permit requirements, including the implementation of a SWPPP, as described in APM WQ-1. The SWPPP would include detailed BMPs designed to avoid water quality impacts of all construction activities, including groundwater dewatering, materials staging, and equipment washing at staging yards, such that Project construction would not violate water quality standards, worsen existing water quality violations, or otherwise adversely affect water quality. Additionally, APM BIO-2 requires emergency spill response and cleanup kits and training for construction crews on safe handling of hazardous materials and cleanup

responsibilities. With implementation of APM WQ-1 and APM BIO-2, impacts on surface water quality related to construction dewatering would be less than significant.

Accidental releases of hazardous materials that are used during construction, such as diesel fuel, hydraulic fluid, or oils and grease, could have an adverse effect on water quality. Potential spills of hazardous materials would be minimized through hazardous materials management measures (see Section 3.9, Hazards and Hazardous Materials). Adherence to the BMPs, as outlined in the SWPPP and APM WQ-1 would reduce potential impacts to water quality to less-than-significant levels. This potential impact is discussed in Section 3.9, Hazards and Hazardous Materials. As discussed there, impacts related to accidental releases of hazardous materials would be less than significant with implementation of APM HAZ-1.

Operation and Maintenance

Project operation and maintenance could result in impacts on surface water and/or groundwater quality as a result of accidental release of pollutants. For example, oils, fuels, and hazardous substances used during routine operation and maintenance could adversely affect water quality if such pollutants were to contact storm water or non-storm runoff or infiltrate into groundwater. Potential spills of hazardous materials would be minimized through hazardous materials management measures contained in the Hazardous Materials Business Plan (HMBP) and through APM HAZ-1 (see Section 3.9, Hazards and Hazardous Materials), resulting in a less-than-significant impact.

Mitigation: None required.

- b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin: *LESS THAN SIGNIFICANT IMPACT.***

Construction and Operation

Water utilized during Project construction for dust control and other uses, would be obtained from hydrants situated along the Project alignment, and therefore would not affect or decrease groundwater supplies. As discussed in Section 3.19, Utilities and Service Systems, local water supplies are from a combination of surface water and groundwater. Within the unincorporated areas of the County, water supply use is at 71 percent of capacity, indicating sufficient supplies would be available for the Project. Within the City of Eureka, the water supply is entirely from surface water and would have no impact on groundwater supplies. If dewatering is necessary during excavation, water would be discharged to the surface in compliance with applicable regulations or discharged to a portable tank or other container and disposed of off-site.

As noted in Table 2-2, Summary of Typical Structure Dimensions, the amount of permanent footprint added by the Project would be negligible as existing poles would be replaced on a one-for-one basis, with some poles removed without being replaced. New impervious surfaces would result from construction of two new tubular steel poles and four new lattice steel towers. These new permanent impervious surfaces would be designed to meet post-construction requirements of the Construction General Permit, including that construction sites be restored to pre-Project

hydrological conditions, which would reduce Project impacts on groundwater recharge such that no chronic lowering of groundwater lowers, or significant and unreasonable reduction of groundwater storage. The impervious surfaces would be surrounded by unpaved permeable areas, and the runoff would be routed to the surrounding areas where water would infiltrate into the subsurface. Additionally, APM WQ-1 would reduce any impact to groundwater resources by ensuring that standards and procedures are followed to reduce erosion and avoid release of hazardous materials and/or sediments to surface and groundwater. For these reasons, the Project would not impede sustainable groundwater management of the Eureka Plain Groundwater Basin and impacts would be less than significant.

Mitigation: None required.

c.i) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site: *LESS THAN SIGNIFICANT IMPACT.*

Construction

The Project would not alter the course of any stream or river. Project construction would include ground disturbing activities that could expose soils to erosion or siltation. Construction activities would include the implementation of required BMPs in accordance with the implementation of a SWPPP and adherence to APM WQ-1, which include erosion control measures to minimize the potential for erosion and siltation. Implementation of APM WQ-1, and the required BMPs, would reduce the potential impact related to drainage patterns causing erosion or siltation to less than significant.

Operation and Maintenance

Once constructed, drainage patterns would be relatively similar to existing conditions other than a slight increase in runoff as a result of an increase in new impervious surfaces. Operation and maintenance of the Project facilities would not require further changes to surface grades that could significantly alter existing drainage patterns. For these reasons, the potential impact from changes to drainage patterns causing erosion or siltation would be less than significant.

Mitigation: None required.

c.ii) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite: *LESS THAN SIGNIFICANT IMPACT.*

Construction

As noted under criterion b), the Project would include approximately 98 square feet of permanent surface area. The Project would also be required to adhere to post-construction drainage control standards under the Construction General Permit, which requires that construction sites be restored to pre-project hydrologic conditions. By restoring sites to pre-project hydrologic conditions, the

rate and amount of surface runoff generated would not substantially increase. Therefore, based on the Project characteristics and the implementation of required post-construction standards, the impact would be less than significant.

Operation and Maintenance

For the same reasons provided under criterion c.i), Project operation and maintenance would not alter the existing drainage pattern of the site or area. Therefore, it would have a less-than-significant impact with respect to increasing the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.

Mitigation: None required.

c.iii) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff: *LESS THAN SIGNIFICANT IMPACT.*

Construction

The Project would include only minor additions of impervious surfaces such that the additional amount of storm water runoff would be small. PG&E would also implement a SWPPP and BMPs during operation and maintenance in accordance with APM WQ-1. During construction, implementation of the SWPPP would limit runoff volume and control pollutants to ensure there would be no adverse effects on water quality. Project impacts on runoff volumes would be negligible and would not result in an exceedance of the capacity of existing or planned storm water drainage systems or cause a substantial increase in the amount of polluted runoff. Impacts would be less than significant.

Operation and Maintenance

For the same reasons provided under criterion c.i), Project operation and maintenance would not alter the existing drainage pattern of the site or area. Therefore, it would have a less-than-significant impact with respect to creating or contributing runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

Mitigation: None required.

c.iv) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows: *LESS THAN SIGNIFICANT IMPACT.*

Construction

While the majority of the Project site is not located within a 100-year flood hazard area, portions of the Project alignment would be located in an area mapped within the 1 percent annual chance

(100-year) flood zone. However, as discussed in Chapter 2, Project Description, no Project components would be constructed within a stream bed. Flows in the streambed would not be altered and any flood flows that reach pole or tower footings would flow around or through these relatively small footprints. In addition, as discussed above in criterion b), the change in the amount of impervious surfaces would be negligible. As previously discussed, construction and staging activities would not substantially alter existing drainage patterns in these areas and would therefore not increase flood risks. There would be a less than significant impact.

Operations and Maintenance

For the same reasons provided under criterion c.i), Project operation and maintenance would not alter the existing drainage pattern of the site or area. Therefore, it would have no impact with respect to impeding or redirecting flood flows.

Mitigation: None required.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation: *LESS THAN SIGNIFICANT IMPACT.*

Construction and Operation

The Project does include several components that would be constructed within a tsunami inundation zone (CGS, 2009), as well as a 100-year flood zone (Humboldt County, 2017). Additionally, the coastal areas are within a seiche hazard zone (CGS, 1980). However, the Project would not place substantial new pollutant sources within these zones. Any construction-related hazardous materials would only be present on a temporary basis, and storm water BMPs designed to control pollutants would be installed pursuant to the Construction General Permit. Therefore, the Project would have a less-than-significant risk of releasing pollutants if Project sites are inundated by tsunami, seiche, and/or flooding.

Mitigation: None required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan: *LESS THAN SIGNIFICANT IMPACT.*

There is no sustainable groundwater management plan relevant to the groundwater basins underlying the study area.

Construction

Project construction would not conflict with or obstruct implementation of the Basin Plan. The Project would adhere to APM WQ-1, which would result in the implementation of BMPs selected to be protective of surface and groundwater quality as part of a SWPPP, in compliance with the Construction General Permit, as discussed in criterion a). The impact would be less than significant.

Operation and Maintenance

The new impervious areas created by the Project would be restored to pre-Project hydrological conditions as required by the Construction General Permit, and would be used only for vehicle and equipment access as needed during operations and maintenance; runoff from these areas therefore would not contain sediment or fuel pollutants at levels that would substantially affect water quality objectives identified for nearby surface water bodies. For these reasons, Project operation would not conflict with or obstruct implementation of the Basin Plan, and the impact would be less than significant.

Mitigation: None required.

3.10.5 References

- California Geological Survey (CGS), 1980. Geology for Planning; Fields Landing and Eureka 7.5' quadrangles. Hydrologic Hazards and Resources.
- CGS, 2009. Tsunami Inundation Map for Emergency Planning, Humboldt Bay. June 1, 2009. Map. Scale 1:48,000.
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- DWR, 2019. Statewide Map of SGMA 2019 Basin Prioritization Results. April 30, 2019.
- Federal Emergency Management Agency (FEMA), 2019. FEMA's National Flood Hazard Layer (NFHL) Viewer. Accessed on August 28, 2019.
- Humboldt County, 2017. Humboldt County General Plan – Chapter 11. Water Resources Element. Adopted October 23, 2017.
- Regional Water Quality Control Board (RWQCB), 2018. Water Quality Control Plan for the North Coast Region. June 2018.
- TRC, 2018. Geotechnical Investigation, Humboldt Bay Reconnector, Eureka, CA. Report Number 265512.

3.11 Land Use and Planning

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
11. LAND USE AND PLANNING — Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

This section evaluates the potential for Project construction, operation, and maintenance to result in impacts to land use and planning in the study area. For the purposes of this analysis, the study area is defined as the footprint of all Project components, including all areas of temporary and/or permanent ground disturbance and the surrounding land uses within which the Project would be constructed and operated.

3.11.1 Environmental Setting

The proposed Project would cross through 7.8 miles of unincorporated Humboldt County and the City of Eureka, connecting Humboldt Bay Substation to Humboldt Substation and crossing a wide range of land uses including residential areas, agricultural and forested areas, wetlands, and water crossings (see **Figure 2-1**). Approximately four miles of the proposed Project alignment (at the western and eastern ends of the alignment) are within the coastal zone. The Project would begin at Humboldt Bay Substation, located just south of Eureka and west of Spruce Point in an industrial area west of U.S Highway 101. From Humboldt Bay Substation, the existing power line extends east approximately 0.6-mile, crossing intertidal wetlands, U.S. Highway 101, and Humboldt Hill Road. East of Humboldt Hill Road, near the Spiegelberg Homestead, the power line continues in a northeasterly direction for approximately 1.2 miles through predominantly agricultural lands, crossing the floodplains of the Elk River and Martin Slough.

The alignment then turns to the north for 2.1 miles, continuing through unincorporated Humboldt County, crossing Martin Slough, the unincorporated community of Pine Hill, and small forested areas. The alignment then turns and travels to the east for 2.0 miles, traversing approximately 0.4-mile of the City of Eureka, the unincorporated community of Cutten, and Redwood Fields before entering the McKay Community Forest. The alignment then travels north and east for approximately 1.67 miles traveling through the McKay Community Forest just south of the Redwood Acres Fairgrounds, crossing Ryan Slough and a rural residential area in unincorporated Humboldt County before reach Humboldt Substation.

The Project alignment crosses through the following Humboldt County General Plan Land Use Designations: MR-Resource Development, AE-Agriculture, NR-Natural Resource, TC-Coastal Commercial, RL- Residential Low Density, RM-Residential Medium Density, CG-Commercial General, P-Public Lands, PF-Public Facility, and RX-Residential Exurban (Humboldt County,

2017). The Project alignment crosses through the following Humboldt County Zoning Designations: MC-Industrial Coastal Dependent, CR-Commercial Recreation, CG-Commercial General, RS-Residential Suburban, RM-Residential Multiple Family, AE-Agriculture Exclusive, NR-Natural Resource, TPZ-Timberland Production, PF-Public Facility, and RA-Rural Residential Agricultural. Within the portion of the Project alignment that crosses the City of Eureka, the land is zoned as RS-6000 Residential One Family (Humboldt County, 2019).

3.11.2 Regulatory Setting

Federal

Coastal Zone Management Act

The Coastal Zone Management Act of 1972 requires that federal actions be consistent with federally approved state coastal plans. The proposed Project would require a Clean Water Act Section 404 authorization from the United States Army Corps of Engineers (USACE), which approval qualifies as a federal action. This may trigger the need for a consistency determination from the California Coastal Commission.

State

California Public Utilities Commission General Order No. 131-D

The CPUC has sole and exclusive jurisdiction over the siting and design of the Project because it authorizes the construction, operation, and maintenance of investor-owned public utility facilities. Although such projects are exempt from local land use and zoning regulations and discretionary permitting (i.e., they would not require discretionary approval from a local decision-making body such as a planning commission, county board of supervisors or city council), General Order No. 131-D, Section XIV.B requires that in locating a project “the public utility shall consult with local agencies regarding land use matters.” The public utility would be required to obtain any required non-discretionary local permit (CPUC, 1995).

California Timberlands Forest Management Plan

The California Timberlands Forest Management Plan discusses timberland owned and managed by the Green Diamond Resource Company (GDR). The intent of the Management Plan is to give an overview of Green Diamond’s management objectives, land and resource base, forest planning and operation practices, conservation strategies, and other issues that affect forest management. Green Diamond lands are also managed through a series of Timber Harvest Plans (THP), regulated by the California Department of Forestry, and through a series of agreements with federal and state wildlife management agencies called Habitat Conservation Plans (HCP). The THPs and HCPs specify when and where timber harvest, roadbuilding, road maintenance, and other activities may take place and under what conditions (GDR, 2017). The eastern portion of the existing powerline crosses through the GDR’s Northern Spotted Owl HCP Plan area. The proposed Project’s consistency with this plan is analyzed in Section 3.4, Biological Resources.

California Timberland Productivity Act of 1982

The California Timberland Productivity Act of 1982 declares that to fully realize the productive potential of the forest resources and timberlands of the state, and to provide a favorable climate for long-term investment in forest resources, it is the policy of this state to do all of the following (Humboldt County, 2017):

1. Maintain the optimum amount of the limited supply of timberland to ensure its current and continued availability for the growing and harvesting of timber and compatible uses.
2. Discourage premature or unnecessary conversion of timberland to urban and other uses.
3. Discourage expansion of urban services into timberland.
4. Encourage investment in timberlands based on reasonable expectation of harvest.

The Project's consistency with plans and policies related to agriculture and timber harvesting are analyzed in Section 3.2, Agriculture and Forestry.

California Coastal Act

The California Coastal Act of 1976 grants the California Coastal Commission (CCC), in partnership with local coastal jurisdictions, the power to regulate development within the coastal zone. The CCC regulates construction activities including the placement or erection of any solid material or structure, the discharge or disposal of any dredged waste, grading, removing, dredging, mining, or extraction of any materials. Under Section 3061(d) of the Coastal Act, an exemption is created for projects that involve the repair and maintenance of existing electric transmission facilities: "In any particular case . . . the executive director [of the Coastal Commission] may, where he or she finds the impact of the development on coastal resources or coastal access to be insignificant, waive the requirement of a permit; provided however, that any such waiver shall not be effective until it is reported to the commission at its next regularly scheduled meeting. If any three (3) commissioners object to the waiver, the proposed repair and maintenance shall not be undertaken without a permit." (14 Cal. Code Regs. §13252(e).

The authority to issue coastal development permits (CDPs) is delegated to local permitting agencies where there is a certified Local Coastal Program (LCP). Approximately half of the Project alignment is located within the coastal zone; therefore, the Project would be subject to either the CCC's original permit jurisdiction or the Humboldt Bay Area Plan of the Humboldt County LCP. As of February 2019, Humboldt County had issued a consolidation request to have the CCC review the entire Project under the California Coastal Act, which would allow the entire Project to be reviewed by the CCC and not Humboldt County. Consistency with the California Coastal Act would be determined as part of review of the Project by either the CCC or Humboldt County pursuant to the Humboldt County LCP (PG&E, 2019).

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution

lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction." The discussion below presents local policies and regulations for informational purposes only; the CPUC does not consider these regulations "applicable" as that term is used in CEQA.

Humboldt County General Plan

The Energy Element of the Humboldt County General Plan contains the following policies which are relevant to the siting of electrical transmission infrastructure.

E-S5: Electrical Transmission Lines.

- A. Transmission line rights-of-way shall be routed to minimize impacts on the viewshed in the coastal zone, especially in highly scenic areas, and to avoid locations that are on or near habitat, recreational, or archaeological resources, whenever feasible. Scarring, grading, or other vegetative removal shall be minimized and revegetated with plants similar to those in the area.
- B. Where above-ground transmission line placement would unavoidably affect views, underground placement shall be required where it is technically and economically feasible, unless it can be shown that other alternatives are less environmentally damaging. When above-ground facilities are necessary, design of the support towers shall be compatible with the surroundings to the extent safety and economic considerations allow.
- C. Above-ground transmission lines should be sited so as to minimize visual impacts.
- D. Siting of transmission lines should avoid the crests of roadways to minimize their visibility on distant views. Where visual impacts would be minimized, lines should cross the roadway at a downhill low elevation site or a curve in the road.
- E. New major steel tower electrical transmission facilities should be consolidated with existing electrical steel-tower transmission facilities unless there are social, aesthetic, or significant economic concerns.
- F. Existing rights-of-way should be utilized for other related utilities to provide consolidated corridors wherever such uses are compatible or feasible.
- G. Access and construction roads should be located to minimize landform alterations. Road grades and alignments should follow the contour of the land with smooth, gradual curves where possible.

Humboldt County Code Zoning Regulations

The Humboldt County Zoning Code is adopted pursuant to Title 7 of the Government Code and Section 30500 of the Public Resources Code. The purpose of the Humboldt County Zoning Code is to promote and protect the public health, safety, comfort, convenience, and general welfare of the County. The Code is intended to assure social and economic stability with the various zones established and is consistent with the General Plan and Local Coastal program. Title 3, Land Use and Development, of the Zoning Code addresses electric transmission lines and quasi-public structures and uses within local jurisdiction (Humboldt County, 2000).

Section 313-73.1, Electrical Transmission Lines, Major, includes regulations to ensure that major electrical transmission and distribution facilities within local jurisdiction are located, designed, and constructed in a manner that is least environmentally damaging to natural resources and minimizes degradation of coastal scenic resources.

73.1.3: Required Mitigation. The following mitigation measures shall be included in the siting and installation of major electrical transmission lines: (Former Section CZ#A314-14(C))

73.1.3.1: Scarring, grading or other vegetative removal shall be minimized; disturbed areas shall be revegetated with plants similar to those in the area; (Former Section CZ#A314-14(C)(1))

73.1.3.2: Where above-ground transmission line placement will unavoidably affect views, transmission lines will be underground where it is technically and economically feasible, except where it has been shown that other alternatives are less environmentally damaging; (Former Section CZ#A314-14(C)(2))

73.1.3.3: Where above-ground facilities are necessary, design of the support towers shall be compatible with the surroundings to the extent safety and economic considerations allow; (Former Section CZ#A314-14(C)(3))

73.1.3.4: Transmission lines shall be routed to avoid the crests of roadways to minimize their visibility on distant views. Where visual impacts will be minimized, lines shall cross roadways at downhill low elevation sites or curves in the road, wherever feasible; (Former Section CZ#A314-14(C)(4))

73.1.3.5: New major steel tower electrical transmission facilities shall be sited in the same utility corridor with existing electrical steel tower transmission facilities, except where there are social, aesthetic or significant economic concerns which make such routing inappropriate; (Former Section CZ#A314-14(C)(5))

73.1.3.6: Existing right-of-way shall be utilized for other related utilities, in order to provide consolidated corridors, wherever such consolidation is compatible and feasible; (Former Section CZ#A314-14(C)(6))

73.1.3.7: Access and construction roads shall be located to minimize landform alternations. Road grades and alignments shall follow the contour of the land with smooth, gradual curves, wherever possible. (Former Section CZ#A314-14(C)(7))

Section 314-85.1, Quasi-Public Structures and Uses, states that both overhead and underground transmission and distribution lines within local jurisdiction shall be permitted in any zone without limitation as to height.

City of Eureka General Plan

The General Plan contains the goals, policies and implementation programs to guide Eureka's growth, revitalization, and conservation through 2040. The Land Use Element includes guidance on the community form, character, growth, and expansion of commercial corridors, employment areas, and residential neighborhoods. The Utilities Element of the City of Eureka 2040 General Plan includes the following goal applicable to the Project (City of Eureka, 2018):

Goal U-5.10: Continue promoting the undergrounding of overhead utility lines whenever feasible, particularly in recreational facilities, the Core Area, and new residential development, working closely with electricity and telecommunication providers. Identify new Underground Utility Districts, evaluate the feasibility of undergrounding utilities during street and road construction projects, and continue to require the undergrounding of overhead utility lines in existing Underground Utility Districts.

City of Eureka Municipal Code

According to Title XV, Land Use, of the Municipal Code, electric transmission lines within local jurisdictions may be constructed in any district without obtaining a use permit if the Commission has approved of the routes and design by resolution (Section 155.299, Electric Transmission Lines).

Humboldt Bay Area Plan of the Humboldt County Local Coastal Plan

The Humboldt County Local Coastal Plan includes the Humboldt Bay Area Plan, which is the portion of the LCP relevant to the proposed Project alignment. This LCP identifies requirements for development in the Coastal in order to ensure that development is in accordance with the California Coastal Act. Policies in the Plan are intended to protect biological and cultural resources, protect access to the coast and coastal recreational lands, keep agricultural land in production, protect the marine environment, and ensure public safety. The Plan includes the following development policies relevant to electrical transmission lines (County of Humboldt, 2014).

- a. Transmission line rights-of-way shall be routed to minimize impacts on the viewshed in the coastal zone, especially in highly scenic areas, and to avoid locations which are on or near habitat, recreational, or archaeological resources, whenever feasible. Scarring, grading, or other vegetative removal shall be minimized and revegetated with plants similar to those in the area.
- b. Where above-ground transmission line placement would unavoidably affect views, undergrounding shall be required where it is technically and economically feasible unless it can be shown that other alternatives are less environmentally damaging. When above-ground facilities are necessary, design of the support towers shall be compatible with the surroundings to the extent safety and economic considerations allow.
- c. Above-ground transmission lines should be sited so as to minimize visual impacts.
- d. Siting of transmission lines should avoid the crests of roadways to minimize their visibility on distant views. Where visual impacts would be minimized, lines should cross the roadway at a downhill low elevation site or a curve in the road.
- e. New major steel tower electrical transmission facilities should be consolidated with existing electrical steel-tower transmission facilities unless there are social, aesthetic or significant economic concerns.
- f. Existing rights-of-way should be utilized for other related utilities to provide consolidated corridors wherever such uses are compatible or feasible.
- g. Access and construction roads should be located to minimize landform alterations. Road grades and alignments should follow the contour of the land with smooth, gradual curves where possible.

3.11.3 Applicant Proposed Measures

There are no Applicant Proposed Measures identified by PG&E that would address potential Project impacts to land use and planning.

3.11.4 Environmental Impacts

Discussion

a) Physically divide an established community: **NO IMPACT**

The proposed Project alignment would cross some residential areas; however, the Project involves the reconductoring of an existing line and would not involve the construction of new power lines. The components of the Project would be located within an existing right-of-way. Thus, the Project would not create a new physical barrier that would divide existing communities and there would be no impact.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect: **NO IMPACT.**

The Final Statement of Reasons provided with the 2018 CEQA Guidelines Update clarifies that the focus of an analysis of whether or not a project conflicts with land use plans, “should not be on the ‘conflict’ with the plan, but instead, on any adverse environmental impact that might result from a conflict” (California Governor’s Office of Planning and Research [OPR], 2018). There are numerous plans, policies, and regulations that either are implicated by relevant CEQA Guidelines Appendix G checklist questions or that were adopted for the purpose of avoiding or mitigating an environmental effect and, thus, are evaluated under the appropriate resource-specific section of this Initial Study. As an example, Section 3.4, Biological Resources, evaluates whether the Project would conflict with the provisions of an adopted HCP or similar plan. Thus, environmental impacts that would occur due to conflicts with plans, policies, and regulations are discussed in each appropriate topical section of this analysis. Provided below is an evaluation of the potential environmental impacts specifically related to any conflict with a land use plan, policy, or regulation within the study area.

Humboldt County

The proposed Project would be consistent with the zoning ordinance because the ordinance allows “quasi-public structures,” including utility lines, within all zones through which the Project would pass. Because the zoning ordinance implements the General Plan land use designations and policies, the Project would be consistent with the General Plan and would avoid any significant environmental impact due to a conflict with any land use plan, policy, or regulation of Humboldt County.

City of Eureka

The Project would be consistent with the following provision of the zoning ordinance that allows for electric transmission lines “electric transmission lines may be constructed in any district

without the necessity of first obtaining a use permit.” Because the zoning ordinance implements the General Plan land use designations and policies, the Project also would be consistent with the General Plan and would avoid any significant environmental impact due to a conflict with any land use plan, policy, or regulation in the City of Eureka.

Humboldt Bay Area Plan of the Humboldt County Local Coastal Plan

The Project would be consistent with most of the policies included in the LCP relevant to electrical transmission lines. Namely, the Project would consolidate lines on Lattice Steel Towers, reducing the number of facilities in the Coastal Zone. Additionally, in accordance with the LCP, the Project would minimize landform alterations when constructing access roads. The Project involves an existing transmission line; therefore, policies relevant to the siting of transmission lines are not relevant to the Project. Additionally, as discussed above, the Project would require approval by either Humboldt County or the California Coastal Commission. Humboldt County has issued a consolidation request to have the California Coastal Commission review the entire Project. Approval of the Project by the California Coastal Commission would ensure that the Project does not conflict with the California Coastal Act or the LCP.

The Project would not conflict with the above-listed general plans, zoning ordinances, and municipal codes. Therefore, no impact would occur.

3.11.5 References

California Governor’s Office of Planning and Research (OPR), 2018. *Final Statement of Reasons for Regulatory Action Amendments to the State CEQA Guidelines*. November 2018. Available online: http://resources.ca.gov/ceqa/docs/2018_CEQA_Final_Statement_of%20Reasons_111218.pdf. Accessed: October 28, 2019.

California Public Utilities Commission, 1995. General Order No. 131-d. Available online at <http://docs.cpuc.ca.gov/PUBLISHED/Graphics/589.PDF>. Accessed on August 14, 2018.

City of Eureka, 2011. *Chapter 155: Zoning Regulations*. Available at: [http://library.amlegal.com/nxt/gateway.dll/California/eureka/titlexvlandusage/chapter155zoningregulations?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:eureka_ca\\$sanc=JD_155.118](http://library.amlegal.com/nxt/gateway.dll/California/eureka/titlexvlandusage/chapter155zoningregulations?f=templates$fn=default.htm$3.0$vid=amlegal:eureka_ca$sanc=JD_155.118). Accessed: august 23, 2019

City of Eureka, 2018. *City of Eureka 2040 General Plan*. Amended May 2018. Available at: [http://eureka2040gpu.com/Links/pdfs/Eureka%20General%20Plan%20May2018%20Final%20\(web\).pdf](http://eureka2040gpu.com/Links/pdfs/Eureka%20General%20Plan%20May2018%20Final%20(web).pdf). Accessed: August 23, 2019.

Humboldt County, 2000. *Humboldt County Zoning Code*. Available at: <https://humboldtgov.org/DocumentCenter/View/4029/Humboldt-County-Zoning-Regulations-PDF>. Accessed: August 23, 2019.

Humboldt County, 2014. *Humboldt County General Plan Volume II; Humboldt Bay Area Plan of the Humboldt County Local Coastal Program*. Amended December 2014. Available at: <https://humboldtgov.org/DocumentCenter/View/50844/Humboldt-Bay-Area-Local-Coastal-Plan>. Accessed: August 23, 2019.

Humboldt County, 2017. *Humboldt 21st Century General Plan: Humboldt County General Plan for Areas Outside the Coastal Zone*. Adopted October 23, 2017. Available at: <https://humboldtgov.org/DocumentCenter/View/61984/Humboldt-County-General-Plan-complete-document-PDF>. Accessed: August 23, 2019.

Humboldt County Web GIS, 2019. *Zoning*. Available at: <http://webgis.co.humboldt.ca.us/HCEGIS2.0/> Accessed: October 28, 2019.

Pacific Gas and Electric Company (PG&E), 2019. Application of Pacific Gas and Electric Company for a Permit to Construct the Humboldt Bay-Humboldt #1 60 KV Reconductoring Project, filed February 7, 2019.

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3.12 Mineral Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
12. MINERAL RESOURCES — Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

This section describes the existing sources of mineral resources in the Project study area and evaluates the potential for construction, operation, and maintenance of the Project to result in the loss of availability of known or locally important mineral resources. For the purposes of the evaluation of mineral resources, the study area is defined as the footprint of all components of the proposed Project including all areas of temporary and/or permanent ground disturbance.

3.12.1 Environmental Setting

Mineral Resources

Multiple sources of information were consulted to determine the potential presence of mineral resources within the study area. These included the Mineral Resources Data System (MRDS), administered by the U.S. Geological Survey (USGS), which provides data describing mineral resources, including deposit name, location, commodity, deposit description, production status and references and which can be used to confirm the presence/absence of existing surface mines, closed mines, occurrences/prospects, and unknown/undefined mineral resources (USGS, 2017). Maps created by the California Geological Survey (CGS), designed to protect mineral resources in California by classifying the regional significance of mineral resources, were also reviewed.

Locations of past and current mining activity as well as the presence of geologic materials that can be mined can also be used to assess the potential for the presence of mineral resources or the existence of mineral resource recovery sites (mines). According to the Mineral Resources Online Spatial Data available on the USGS website, there are no significant mineral resources in the Project area (USGS, 2019).

The CGS maps and regulates the locations of potential mineral resources in California consistent with the Surface Mining and Reclamation Act (SMARA), described in 3.12.2, Regulatory Setting. In order to protect these potential mineral resources, the CGS has classified the regional significance of mineral resources into mineral resource zones (MRZs) and mapped them. Descriptions of the MRZ categories are provided in **Table 3.12-1**. Currently, there are no SMARA classifications assigned within the study area and the areas of interest have no current MRZ designation. Additionally, there are no locally important mineral resource recovery sites delineated in local general plans, specific plans, or zoning.

**TABLE 3.12-1
CALIFORNIA MINERAL LAND CLASSIFICATION SYSTEM**

Mineral Resource Zone Category	Category Description
MRZ-1	Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources
MRZ-2	Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists
MRZ-3	Areas containing known or inferred mineral occurrences of undetermined mineral resource significance
MRZ-4	Areas where available information is inadequate to assign to any other MRZ category

SOURCE: CGS, 2017a

Oil, Gas, and Geothermal Resources

The California Division of Oil, Gas, and Geothermal Resources (DOGGR) oversees the drilling, operation, maintenance, plugging, and abandonment of oil, natural gas, and geothermal wells, and tracks every known oil and gas well and field in the state. Maps maintained by DOGGR indicate that there are no known oil or gas fields in the area of interest, and that no oil and gas wells exist within one mile of any of the proposed Project components (DOGGR, 2019).

3.12.2 Regulatory Setting

Federal

No federal regulations apply to mineral resources in the Project study area.

State

Surface Mining and Reclamation Act

SMARA (Pub. Res. Code §§2710-2796) and its implementing regulations (14 Cal. Code Regs. §3500 et seq.) establish a comprehensive state policy for the conduct of surface mining operations and for the reclamation of mined lands to a usable condition that is readily adaptable for alternative land uses. SMARA encourages the production, conservation, and protection of the state's mineral resources and recognizes that "the state's mineral resources are vital, finite, and important natural resources and the responsible protection and development of these mineral resources is vital to a sustainable California" (Pub. Res. Code §2711). Under SMARA, the term "minerals" includes "any naturally occurring chemical element or compound, or groups of elements and compounds, formed from inorganic processes and organic substances, including, but not limited to, coal, peat, and bituminous rock, but excluding geothermal resources, natural gas, and petroleum" (14 Cal. Code Regs. §3501).

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "Local jurisdictions acting

pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction." The discussion below presents local policies and regulations for informational purposes only; CPUC does not consider these regulations "applicable" as that term is used in CEQA.

Humboldt County General Plan

The Humboldt County General Plan (2017) includes the following goals and policies related to mineral resources:

Goal MR-G1: Long-Term Supply of Mineral Resources. A geographically distributed inventory of mining sites protected from incompatible land uses, permitted and operated to prevent or minimize to the extent feasible significant environmental impacts and to satisfy long-term demand for mineral resources and construction materials. Mining permits may be issued for any term consistent with the resource and subject to ongoing regulatory review.

MR-P2: Production and Conservation. Encourage the production and conservation of minerals, while preserving to the maximum extent feasible the values relating to recreation, watershed, wildlife, timber management and agriculture, science, and aesthetic enjoyment.

MR-P8: Future Development Planning. Plan future development such that it will not interfere with the utilization of identified mineral deposits.

3.12.3 Applicant Proposed Measures

No Applicant Proposed Measures (APMs) have been proposed by PG&E to reduce potential mineral resources-related impacts of the Project.

3.12.4 Environmental Impacts

Discussion

- a) **Whether the Project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state: *NO IMPACT.***

The proposed Project would not affect oil and gas extraction because there are no known oil or gas fields in the study area. With respect to mineral resources, there are no potential mineral resources mapped in the study area. There would be no impact under this criterion.

- b) **Whether the Project would result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan: *NO IMPACT.***

The proposed Project would not be located on or near any mineral resource recovery sites identified in local land use plans. There are no mines or records of mining activity in the study

area. The Project would not impact the availability of locally important mineral resources from an identified resource recovery site. There would be no impact under this criterion.

3.12.5 References

United States Geological Survey (USGS), 2019. Mineral Resources Data System.

Department of Oil, Gas, and Geothermal Resources (DOGGR), 2019. Well Finder.

3.13 Noise

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
13. NOISE — Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.13.1 Environmental Setting

Noise Background

Sound is mechanical energy transmitted by pressure waves through a medium such as air. Noise can be defined as unwanted sound. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. Sound pressure level is measured in decibels (dB), with 0 dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies instead focusing on the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). All sound pressure levels and sound power levels reported below are A-weighted.

Noise Exposure and Ambient Noise

An individual's noise exposure is a measure of the noise experienced by the individual over a period of time. A noise level is a measure of noise at a given instant in time. However, noise levels rarely persist consistently over a long period of time. In fact, noise varies continuously with time with respect to the contributing sound sources of the noise environment. Noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. Background noise levels change throughout a typical day, but do so gradually, corresponding with the addition and subtraction of distant noise sources and atmospheric conditions. The addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens) makes noise constantly variable throughout a day.

These successive additions of sound to the noise environment vary the noise level from instant to instant requiring the measurement of noise exposure over a period of time to legitimately characterize a noise environment and evaluate noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. Different noise descriptors discussed in this analysis are summarized below:

L_{eq}: The equivalent sound level is used to describe noise over a specified period of time, in terms of a single numerical value. The L_{eq} is the constant sound level which would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).

CNEL: The Community Noise Equivalent Level (CNEL) is a 24-hour L_{eq} that adds a five dBA penalty to noise occurring during evening hours from 7:00 p.m. to 10:00 p.m., and a 10 dBA penalty to sounds occurring between the hours of 10:00 p.m. to 7:00 a.m. to account for the increased sensitivity to noise events that occur during the quiet late evening and nighttime periods.

L_{max}: The instantaneous maximum noise level measured during the measurement period of interest.

Effects of Noise on People

The effects of noise on people can be placed into three categories:

- subjective effects of annoyance, nuisance, dissatisfaction;
- interference with activities such as speech, sleep, learning; and
- physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers at industrial plants often experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation exists in the individual thresholds of annoyance, and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way the new noise compares to the existing noise levels that one has adapted, which is referred to as the "ambient noise" level. In general, the more a new noise exceeds the previously existing ambient

noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference when the change in noise is perceived but does not cause a human response;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. A ruler is a *linear* scale; it has marks on it corresponding to equal quantities of distance. One way of expressing this is to say that the ratio of successive intervals is equal to one. A *logarithmic* scale is different in that the ratio of successive intervals is not equal to one. Each interval on a logarithmic scale is some common factor larger than the previous interval. A typical ratio is 10, so that the marks on the scale read: 1; 10; 100; 1,000; 10,000; etc., doubling the variable plotted on the x-axis. The human ear perceives sound in a non-linear fashion; hence, the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, rather they combine logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA. However, where ambient noise levels are high in comparison to a new noise source, there will be a small change in noise levels. For example, when 70 dBA ambient noise levels are combined with a 60 dBA noise sources, the resulting noise level equals 70.4 dBA.

Nighttime noise has a higher potential to affect sleep. Noise can make it difficult to fall asleep, can create momentary disturbances of natural sleep patterns by causing shifts from deep to lighter stages, and can cause awakening (Los Angeles World Airports [LAWA], 2012).

Health effects from noise have been studied around the world for nearly 30 years. Scientists have attempted to determine if high noise levels can adversely affect human health apart from auditory damage. These research efforts have covered a broad range of potential impacts from cardiovascular response from fetal weight to mortality. While a relationship between noise and health effects seems plausible, it has yet to be convincingly demonstrated—that is, shown in a manner that can be repeated by other researchers while yielding similar results. In a review of 30 studies conducted worldwide between 1993 and 1998, a team of international researchers concluded that, while some findings suggest that noise can affect health, improved research concepts and methods are needed to verify or discredit such a relationship. The team of international researchers called for more study of the numerous environmental and behavioral factors than can confound, mediate, or moderate survey findings. Until science refines the research process, a direct link between a single source noise exposure and non-auditory health effects remains to be demonstrated (LAWA, 2012).

Noise Attenuation

Sound level naturally decreases with more distance from the source. This basic attenuation rate is referred to as the *geometric spreading loss*. The basic rate of geometric spreading loss depends on whether a given noise source can be characterized as a point source or a line source. Point sources of noise, including stationary mobile sources such as idling vehicles or on-site construction equipment, attenuate (lessen) at a rate of 6.0 dBA per doubling of distance from the source. In many cases, noise attenuation from a point source increases to 7.5 dBA for each doubling of distance due to ground absorption and reflective wave canceling. These factors are collectively referred to as *excess ground attenuation*. The basic geometric spreading loss rate is used where the ground surface between a noise source and a receiver is reflective, such as parking lots or a smooth body of water. The excess ground attenuation rate (7.5 dBA per doubling of distance) is used where the ground surface is absorptive, such as soft dirt, grass, or scattered bushes and trees.

Widely distributed noises such as a street with moving vehicles (a “line” source) would typically attenuate at a lower rate of approximately 3.0 dBA for each doubling of distance between the source and the receiver. If the ground surface between source and receiver is absorptive rather than reflective, the nominal rate increases to 4.5 dBA for each doubling of distance. Atmospheric effects, such as wind and temperature gradients, can also influence noise attenuation rates from both line and point sources of noise. However, unlike ground attenuation, atmospheric effects are constantly changing and difficult to predict.

Trees and vegetation, buildings, and barriers reduce the noise level that would otherwise occur at a given receptor distance. However, for a vegetative strip to have a noticeable effect on noise levels, it must be dense and wide. For example, a stand of trees must be at least 100 feet wide and dense enough to completely obstruct a visual path to the roadway to attenuate traffic noise by 5 dBA (Caltrans, 2009). A row of structures can shield more distant receivers depending upon the size and spacing of the intervening structures and site geometry. Similar to vegetative strips discussed above, noise barriers, which include natural topography and soundwalls, reduce noise by blocking the line of sight between the source and receiver. Generally, a simple noise barrier that breaks the line of sight between source and receiver will provide at least a 5-dBA reduction in noise.

Vibration

Vibration is an oscillatory motion through a solid medium in which the motion’s amplitude can be described in terms of displacement, velocity, or acceleration. There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal and is typically expressed in units of inches per second (in/sec). The PPV is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration (Federal Transit Administration [FTA], 2018). Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration.

Some common sources of ground-borne vibration are trains, heavy trucks traveling on rough roads, and construction activities such as blasting, pile driving, and operation of heavy earth-moving equipment. The effects of ground-borne vibration include movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile-driving during construction. In residential areas, the background vibration velocity level is usually around 50 VdB (approximately 0.0013 in/sec PPV).

Existing Ambient Noise Environment

The proposed Project is located in unincorporated Humboldt County and within the City of Eureka adjacent to Humboldt Bay in northern California. The area has a low population density and is flanked by forested areas to the east and the Pacific Ocean to the west. Highway 101 is the only major highway that provides access to the City of Eureka and is a major source of noise in the area. Other sources of noise in the area include airports, industry, weather, and stationary noise sources that influence local noise environments.

The major sources of noise in Humboldt County include highway and roadway traffic, aircrafts near airports, railroad traffic along the Northwestern Pacific right-of-way, noise from industrial activities such as lumber mills, power plants (including facilities in Blue Lake, Fairhaven, and Scotia), and construction sites. Of these sources, only highway and roadway traffic-related sources are found near the Project area. Traffic-related noise is generated from Highway 101, Hill Road, Humboldt Hill Road, Elk River Road, and arterial and neighborhood roads.

Corona Noise

The localized electric field near an energized conductor can be sufficiently concentrated to produce a small electric discharge, which can ionize air close to the conductors. This effect is called corona, and it is associated with all energized electric power lines but is especially common with high-voltage transmission lines. If the intensity of the electric field at the surface exceeds the insulating strength of the surrounding air, a corona discharge occurs in the form of heat and energy dissipation. Corona can result in the production of small amounts of sound, radio noise, heat, and chemical reactions of air components. Modern power lines are designed, constructed, and maintained so that, during dry conditions, they operate below the corona-inception voltage and generate minimal corona-related noise. Corona increases with humid and inclement weather, high pollution, and smoke from wildfires. Under these conditions, an audible hum and crackling noise may be heard (Parmar, 2011).

Sensitive Receptors

Human response to noise varies considerably from one individual to another. Effects of noise at various levels can include interference with sleep, concentration, and communication, and can cause stress and hearing loss. Given these effects, some land uses are considered more sensitive to ambient noise levels than others. In general, residences, schools, hotels, hospitals, and nursing homes are considered to be the most sensitive to noise. Places such as churches, libraries, and cemeteries, where people tend to pray, study, and/or contemplate are also sensitive to noise. Commercial and industrial uses are considered the least noise-sensitive. Below is a list of

sensitive receptors near proposed Project infrastructure and their distance to the Project site where construction would take place.

The summaries of sensitive receptors provided below are not intended to list every specific individual sensitive receptor, but are intended to provide an overview of the types of uses in the vicinity of the proposed Project. The nearest noise-sensitive receptors to the Project area are residences, some of which are as close as 10 feet from existing poles along the alignment. The nearest hospital is St. Joseph's Hospital, which is approximately 0.65-mile from the existing Project alignment. There are several non-residential sensitive receptors such as schools, parks, playgrounds, community centers, and hospice facilities located close to the Project alignment. Grant Elementary School, Sequoia Park, and Hospice of Humboldt are all located approximately 50 feet from various points along the Project alignment.

While most of the helicopter landing zones are located away from sensitive receptors with the intent to reduce impacts to receptors, the landing zone located adjacent to King Salmon Avenue towards the southern end of the Project alignment would be located within 100 feet of residences.

3.13.2 Regulatory Setting

Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies. Local regulation of noise involves implementation of general plan policies and noise ordinance standards. Local general plans tend to identify general principles intended to guide and influence development plans; local ordinances establish standards and procedures for addressing specific noise sources and activities.

Federal

Truck Operations

Federal regulations establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under 40 Code of Federal Regulations, Part 205, Subpart B. The federal truck pass-by noise standard is 80 dBA at 15 meters (approximately 50 feet) from the vehicle pathway centerline. These controls are implemented through regulatory controls on truck manufacturers.

Vibration

The Federal Transit Administration (FTA) has adopted vibration standards that are used to evaluate potential building damage impacts related to construction activities. The vibration damage criteria adopted by the FTA are shown in **Table 3.13-1**.

In addition, the FTA has adopted standards associated with human annoyance for ground-borne vibration impacts for the following three land-use categories: Vibration Category 1 – High Sensitivity, Vibration Category 2 – Residential, and Vibration Category 3 – Institutional. The FTA defines Category 1 as buildings where vibration would interfere with operations within the building, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment

includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes. Category 2 refers to all residential land uses and any buildings where people sleep, such as hotels and hospitals. Category 3 refers to institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment but still have the potential for activity interference. The vibration thresholds associated with disturbance for these three land-use categories are shown in **Table 3.13-2**. No thresholds have been adopted or recommended for commercial and office uses.

**TABLE 3.13-1
CONSTRUCTION VIBRATION DAMAGE CRITERIA**

Building Category	PPV (in/sec)
I. Reinforced-concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12
SOURCE: FTA, 2018	

**TABLE 3.13-2
GROUND-BORNE VIBRATION IMPACT CRITERIA FOR GENERAL ASSESSMENT**

Land Use Category	Frequent Events ^a	Occasional Events ^b	Infrequent Events ^c
Category 1: Buildings where vibration would interfere with interior operations	65 VdB ^d	65 VdB ^d	65 VdB ^d
Category 2: Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use	75 VdB	78 VdB	83 VdB

NOTES:

^a "Frequent Events" is defined as more than 70 vibration events of the same source per day.

^b "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

^c "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day.

^d This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes.

SOURCE: FTA, 2018.

State

Vehicle Operations

The State of California establishes noise limits for vehicles licensed to operate on public roads. The pass-by standard for heavy trucks is consistent with the federal limit of 80 dBA. The pass-by standard for light trucks and passenger cars (less than 4.5 tons, gross vehicle rating) is also 80 dBA at 15 meters from the centerline. These standards are implemented through controls on vehicle manufacturers and by legal sanctions on vehicle operators by State and local law enforcement officials.

Vibration

The California Department of Transportation has developed guidance on addressing vibration issues associated with construction, operation, and maintenance of transportation projects (Caltrans, 2013). **Table 3.13-3** shows the Caltrans criteria for human response to transient vibration.

**TABLE 3.13-3
HUMAN RESPONSE TO TRANSIENT VIBRATION**

Human Response	PPV (inches/second)
Severe	2.0
Strongly Perceptible	0.9
Distinctly Perceptible	0.24
Barely Perceptible	0.035
SOURCE: Caltrans, 2013.	

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction.” The discussion below presents local policies and regulations for informational purposes only; the CPUC does not consider these regulations “applicable” as that term is used in CEQA.

City of Eureka General Plan

The City of Eureka General Plan does not contain quantitative thresholds or limits related to noise generated from construction activities. However, Policy N-1.13 regulates construction-related noise and vibration by limiting construction activities within 500 feet of noise-sensitive uses to between 7:00 a.m. to 7:00 p.m., unless further restricted through permitting (City of Eureka, 2018). The City of Eureka Municipal Code does not contain any standards that pertain to construction noise.

Humboldt County General Plan

The Noise Element of the Humboldt County General Plan includes short-term noise standards categorized by zoning. Standard N-S7 provides maximum permissible short-term noise performance standards that apply to all properties within their assigned noise zones. The standards are shown in **Table 3.13-4** below.

**TABLE 3.13-4
HUMBOLDT COUNTY SHORT TERM NOISE STANDARDS**

Zoning Designation	Daytime L_{max} (dBA) (6 a.m. to 10 p.m.)	Nighttime L_{max} (dBA) (10 p.m. to 6 a.m.)
Industrial, Agriculture, and Resource Areas	80	70
Commercial and Light Industrial	75	65
Multi-Family Residential and Apartments	65	60
Residential Suburban, One- and Two-Family Residential, Natural Resources	65	60

NOTES:

The Short-Term Noise levels shown in the above table shall not apply to uses such as, but not limited to:

1. Portable generator use in areas served by public electricity when electrical service is interrupted during emergencies as determined by the Planning Director.
2. Temporary events in conformance with an approved Conditional Use Permit.
3. Use of chainsaws for cutting firewood and power equipment used for landscape maintenance when accessory to permitted on-site uses.
4. Heavy equipment and power tools used during construction of permitted structures when conforming to the terms of the approved permit.
5. Emergency vehicles.

SOURCE: Humboldt County, 2017.

Based on exception 4 identified in the table notes above, the local short-term noise performance standards would not apply to temporary construction noise from the proposed Project.

3.13.3 Applicant Proposed Measures

The following measures pertaining to noise have been proposed by PG&E and would be implemented as part of the proposed Project.

APM NOI-1: Employ Noise-Reducing Construction Practices during Temporary Construction Activities. PG&E will employ standard noise-reducing construction practices such as the following:

- Construction equipment will use noise-reduction devices that are no less effective than those originally installed by the manufacturer.
- Locate stationary equipment as far as practical from noise-sensitive receptors.
- Limit unnecessary engine idling.
- Limit all construction activity near sensitive receptors to daytime hours unless required for safety or to comply with line clearance requirements.

APM NOI-2: Notify Residents of Nighttime Construction. Should nighttime project construction be necessary because of planned clearance restrictions, residents within 300 feet of the construction site(s) will be notified at least 7 days in advance by mail, personal visit, door hanger, or e-mail and informed of the expected work schedule.

APM NOI-3: Notify Sensitive Receptors of Helicopter Use. Sensitive receptors within 300 feet of areas where helicopters will be used for construction will be notified by mail, personal visit, door hanger, or e-mail at least 7 days prior to beginning helicopter activities. Notification will also include posting signs in appropriate locations with a contact number to call with questions and concerns.

3.13.4 Environmental Impacts

Approach to Analysis

Equipment noise during construction of the proposed Project is the primary concern in evaluating short-term noise impacts. During operation, noise from corona discharge along the power lines and general operation and maintenance activities would be the primary concerns associated with long-term noise impacts. The proposed Project is not expected to increase noise from other operational activities as no changes to existing operation and maintenance activities are proposed.

As there are no noise level standards or thresholds applicable to construction activities in the City of Eureka or Humboldt County, short-term construction impacts from the Project were assessed relative to recommendations of the FTA in its *Noise and Vibration Impact Assessment Manual* (FTA, 2018). Estimates of construction noise are based on reference noise levels published by the FTA for various pieces of construction equipment, and the distance to nearby noise-sensitive receptors. Construction noise level estimates do not account for the presence of intervening structures or topography, which could reduce noise levels at receptor locations. Therefore, the estimated construction noise levels represent a conservative estimate of actual construction noise at receptor locations.

There are no local significance thresholds specific to groundborne vibration. The construction vibration analysis presented below is based on an assessment of vibration levels generated by construction equipment at offsite structures in comparison to vibration criteria for human annoyance provided by Caltrans and shown in Table 3.13-3.

Discussion

- a) **Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies: *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.***

Construction

The Project would consist of short-term construction activities that would progress along the Project alignment lasting for a period of approximately eight months. Construction activities would occur six days a week and would generally be limited to 10 hours per day. Project construction activities and equipment that would be used are described in detail in Chapter 2, Project Description. Residential receptors are located as close as 10 feet from certain sections of the Project alignment.

Construction would involve use of equipment that generate substantial noise at and adjacent to the Project alignment. Noise impacts from construction would depend on the type of activity and the distance to the sensitive receptor locations. **Table 3.13-5** shows typical noise levels produced by various types of construction equipment that would be used as part of Project construction activities. Noise impacts from construction activities tend to be greatest when construction activities occur during the noise-sensitive times of the day (early morning, evening, or nighttime hours), in areas immediately adjacent to sensitive receptors, or when construction noise lasts for extended periods of time.

**TABLE 3.13-5
TYPICAL NOISE LEVELS FROM CONSTRUCTION EQUIPMENT**

Type of Equipment	L _{max} , dBA
Backhoe	80
Crane	85
Auger drill rig	85
Dozer	85
Excavator	85
Grader	85
Forklift	82
Jackhammer	85
Dump Truck	84
Pickup Truck	55
Generator	82
Concrete Mixer Truck	85
Loader	80
Pump	77
Air Compressor	80
Concrete saw	90
Chain Saw	85

SOURCE: Federal Highway Administration, 2017.

The noise levels shown in Table 3.13-5 represent maximum noise levels. However, each piece of off-road equipment at a Project construction location would not operate at its maximum capacity constantly throughout the day, as equipment would periodically idle and would be turned off when not in use. Over a typical work day, equipment would operate at different locations along the Project alignment and work sites and would not always be operating concurrently. However, for a more conservative approximation of construction noise levels, consistent with the evaluation approach suggested by the FTA in its *Transit Noise and Vibration Manual*, it is assumed for this analysis that the two loudest pieces of construction equipment would operate at the same time and location at the closest offsite sensitive receptor.

Neither Humboldt County nor the City of Eureka provide quantitative standards that can be used for the analysis of construction noise. However, the City of Eureka General Plan limits construction activities within 500 feet of noise-sensitive uses to between 7:00 a.m. to 7:00 p.m., in general. While nighttime construction is not planned, if required for clearances or other safety or logistics concerns, nighttime construction would take place for very limited, short-term durations. In addition, PG&E proposes to implement APM NOI-1, which would restrict construction activities to the day time hours, unless required for safety or to comply with line clearance requirements. However, as APM NOI-1 does not specify the hours construction would be limited to, any construction activities taking place outside the hours specified by the City of Eureka General Plan would be considered to conflict with local noise standards. Therefore, APM NOI-1 is superseded by

Mitigation Measure NOI-1a, which requires PG&E to conduct all construction activities within the City of Eureka between the hours of 7:00 a.m. to 7:00 p.m. to avoid conflict with the City's standards. Any construction activities that would need to be conducted during the nighttime would be subject to the requirements of **Mitigation Measure NOI-1b** to reduce impacts during the evening and nighttime hours. Mitigation Measure NOI-1b supersedes APM NOI-2 and includes public notification requirements for nighttime construction, in addition to other nighttime noise reduction measures.

There are no applicable local policies or standards specified by Humboldt County or the City of Eureka to quantitatively assess the significance of short-term increase in ambient noise from construction activities. However, the FTA has identified a daytime 1-hour L_{eq} of 90 dBA at residential land uses as the level at which adverse community reaction could occur (FTA, 2018). The increase in short-term construction noise levels is compared to this standard in the analysis presented below.

Using the Roadway Construction Noise Model, the combined noise level of the two noisiest pieces of construction equipment that would be used during Project construction at residential receptors 10 feet away from construction activities was estimated to be 97.2 dBA, which would exceed the FTA's daytime threshold. Given the proximity of sensitive uses along some portions of the alignment, the noise reduction from the measures identified in APM NOI-1 would not be adequate to reduce noise levels to below the FTA's threshold. Construction would progress along the Project alignment and no nearby sensitive receptors would be exposed to these excessive noise levels for more than a few days. Nevertheless, this would constitute a significant impact. Implementation of **Mitigation Measure NOI-1c** would reduce the increase in noise from construction to a less-than-significant level.

Helicopter Noise

Project construction activities would use helicopters to transport materials to and from construction sites, to minimize wetland impacts during construction of tower foundations and structures, to top and remove poles, and to replace poles in steep or inaccessible terrain. The helicopters would transport equipment, pole and tower materials, and construction workers from ten identified helicopter landing zones to sites along the alignment. A Blackhawk (load capacity 8,000 pounds), Bell 214 (load capacity 6,000 pounds), or similar helicopter models would be used.

For light-duty helicopter noise levels, a reference noise level of 83 dBA L_{max} for a Phillips 500 D helicopter hovering at 200 feet was obtained from the U.S. Department of Transportation's Integrated Noise Model, Version 7.0d (U.S. DOT, 2013). Helicopters would be used only where construction sites are not accessible to ground equipment or when construction needs to take place in areas such as marsh wetlands to avoid ground disturbance. Helicopters would not be used at construction sites located in the vicinity of residential receptors that would have ground access to construction equipment and workers. Most of the landing zones are not located close to residential uses; however, one proposed along King Salmon Avenue would be located approximately 100 feet from existing residences. The landing zones are located close to the Project alignment to minimize the helicopter flight path and associated noise impacts to adjacent

landowners and the helicopters would not carry poles or other cargo over residences. Assuming that helicopter operating time hovering at a height of 200 feet would be approximately 15 minutes per hour at each construction site, the 83 dBA L_{\max} would translate to 77 dBA (1-hour Leq) at a receptor 200 feet away. Assuming 10 minutes per hour of activity at the helicopter landing zones related to helicopter landing and takeoff, the 83 dBA L_{\max} would translate to 83 dBA (1-hour Leq) at the nearest residential receptor 100 feet away. Both of the estimated noise levels from helicopter operations would be below the FTA's daytime threshold of 90 dBA.

PG&E would implement APM NOI-3, which would address notification requirements for sensitive receptors within 300 feet of areas where helicopters would be used for construction. In addition, as noted in Section 2.7.3, Helicopter Landing Zones in Chapter 2, Project Description, PG&E would follow all Federal Aviation Administration (FAA) regulations regarding helicopter use during Project construction. Prior to construction, PG&E would prepare a Helicopter Use Plan and submit it to the CPUC to identify the specific flight paths and types of helicopters to be used. If required by final construction plans, PG&E would also submit a Lift Plan to the FAA and coordinate with potentially affected residents to minimize the duration of the necessary work and any inconvenience to nearby residents. As noise levels from helicopter operations would be below the FTA's threshold, with these measures in place, any temporary noise impacts from the operation of helicopters in Project construction would be less than significant.

Mitigation Measure NOI-1a: Adherence to City of Eureka Construction Hour Restrictions. Construction activities within the City of Eureka shall be restricted to the daytime hours between 7:00 a.m. and 7:00 p.m., except as allowed pursuant to Mitigation Measure NOI-1b.

Mitigation Measure NOI-1b: Nighttime Construction. In the event construction would be required to occur outside the hours specified in Mitigation Measure NOI-1a and within 500 feet of sensitive receptors, PG&E and/or its contractors shall implement the following measures to reduce any potential nighttime noise impacts.

- Plan construction activities to minimize the amount of nighttime construction.
- When nighttime construction activities take place within 200 feet of noise sensitive receptors, use portable construction noise barriers, such as paneled noise shields, barriers, enclosures, or sound curtains adjacent to or around loud stationary equipment. Noise control shields shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield.
- Offer temporary relocation of residents within 200 feet of nighttime construction activities that would occur after 10:00 p.m.
- The notification requirements in APM NOI-2 shall be extended to include residences within 500 feet of planned nighttime construction activities. All residents within 500 feet of the proposed nighttime construction site(s) shall be notified at least 7 days in advance by mail, personal visit, door hanger, or e-mail and informed of the expected work schedule.

Mitigation Measure NOI-1c: Construction Noise Management. PG&E and/or its contractors shall implement the measures identified below to ensure that construction

noise levels are reduced to 90 dBA L_{eq} or less at sensitive receptors located within 100 feet.

1. Comply with manufacturer's muffler requirements on all construction equipment engines and ensure exhaust mufflers are in good condition;
2. Turn off construction equipment when not in use, where applicable;
3. Locate stationary equipment, construction staging areas, helicopter landing zones, and construction material areas as far as practical from sensitive receptors;
4. Include noise control requirements for construction equipment and tools in specifications provided to construction contractors to the maximum extent practicable, including performing all work in a manner that minimizes noise; using equipment with effective mufflers; undertaking the noisiest activities during times of least disturbance to surrounding residents and occupants; and selecting haul routes that avoid residential areas;
5. PG&E shall provide notice by mail at least 1 week prior to construction activities to all sensitive receptors and residences within 500 feet of construction sites, staging yards, and access roads, and within 1,000 feet of helicopter landing zones and flight paths. PG&E shall also post notices in public areas, including recreational use areas, within 500 feet of the Project alignment and construction work areas. The announcement shall state approximately where and when construction will occur in the area. For areas that would be exposed to helicopter noise, the announcement shall provide approximate details on the schedule of the dates, times, and duration of helicopter activities. Notices shall provide tips on reducing noise intrusion, for example, by closing windows facing the planned construction. PG&E shall identify and provide a public liaison before and during construction to respond to concerns of neighboring receptors, including residents, about construction noise disturbance. PG&E shall also establish a toll-free telephone number for receiving questions or complaints during construction and develop procedures for responding to callers. Procedures for reaching the public liaison officer via telephone or in person shall be included in the above notices and also posted conspicuously at the construction site(s). PG&E shall address all complaints within 1 week of when the complaint is filed. PG&E shall provide monthly reports with records of complaints and responses to the CPUC. These reports shall be provided to the CPUC within 15 days of the end of the month.
6. When construction activities take place within 100 feet of noise sensitive areas, use portable construction noise barriers such as paneled noise shields, barriers, or enclosures, or sound curtains adjacent to or around loud stationary equipment. Noise control shields shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield. Noise control shields with a minimum performance rating of STC-25 and Noise Reduction Coefficient (NRC) of 0.75 are capable of attenuating noise levels by up to 15 dBA.
7. Route all construction traffic via designated truck routes where possible and prohibit construction related heavy truck traffic in residential areas where feasible.

Significance after Mitigation: Less than significant.

Operation and Maintenance

The proposed Project would not result in the installation of new equipment at Humboldt Bay or Humboldt substations that would result in an increase in ambient noise levels; however, operation of the Project would result in maintenance and inspection activities, as well as corona discharge, that would result in noise in the Project area.

No changes to existing maintenance activities in the Project area are proposed. Maintenance activities for the Project would be similar in scope to existing maintenance activities. Inspection and maintenance of the alignment and facilities would be conducted with the same frequency as current activities and would use similar equipment. Any existing access routes used during construction of the Project would be used to inspect and maintain the facilities. Maintenance activities would be consistent with current practices and would not change as a result of the Project. Therefore, the impact of the Project's operation and maintenance activities would be less than significant.

Mitigation: None required.

Corona Noise

Corona noise is a faint hum or crackle that can be heard in the vicinity of electric lines and is caused when energy escapes the conductor and interacts with moisture and dust in the atmosphere. Lower voltage lines (i.e., below 230 kV) emit lower levels of corona noise than higher voltage lines. Electric lines emit greater corona noise during inclement weather and periods of dense fog. The proposed Project would reconductor existing power lines, but would not extend lines or service where none currently exist. New conductor is free of particulate matter buildup and more efficient at conducting electricity with minimal energy loss, which minimizes corona discharge. Therefore, corona noise generated during operation of the proposed Project would be the same or less than existing conditions. Therefore, no impact is expected to occur due to corona noise.

b) Generation of excessive groundborne vibration or groundborne noise levels: *LESS THAN SIGNIFICANT IMPACT.*

Construction

Temporary sources of groundborne vibration and noise during construction would result from operation of heavy construction equipment and ground disturbance activities such as excavation and drilling. Construction equipment such as pile drivers and vibratory rollers generate the highest levels of vibration. Large bulldozers, caisson drilling, and loaded haul trucks can also generate perceptible vibration in the immediate vicinity. The potential for vibration impact along the Project alignment would be highest when construction would take place in residential areas, which would occur as close as 10 feet from the residential property boundaries in some areas. Vibration attenuates rapidly from the source and associated levels would attenuate to levels that would result in less-than-significant impacts at sensitive receptors along the Project alignment.

Project construction activities that would take place in proximity to residences include removal of poles and installation of new poles and cables. None of the heavy vibration generating equipment, such as pile drivers and vibratory rollers, would be used for these activities. The most vibration-generating equipment that would be used for these activities are augers, jackhammers, and

concrete cutters that would be used for digging pole holes and breaking up concrete for sidewalk restoration.

Jackhammers generate vibration PPV levels of 0.035 in/sec at 25 feet, which would attenuate to a PPV level of 0.14 in/sec at 10 feet, the distance to the nearest receptors. Caltrans has identified a PPV threshold of 0.24 in/sec as distinctly perceptible and at which vibration impacts related to adverse human reaction can be expected. Loaded trucks could generate vibration levels of up to 0.089 in/sec at 25 feet, and they are not likely to be used at distances to residential structures that would be closer than that. Therefore, none of the construction equipment that would be used in proximity to residential receptors would exceed the Caltrans PPV threshold of 0.24 in/sec. Therefore, the Project would not generate excessive groundborne vibration or groundborne noise levels during construction and this impact would be less than significant.

Mitigation: None required.

Operation and Maintenance

Operation and maintenance of the Project would not introduce any new sources of perceivable groundborne vibration to the Project area. Therefore, there would be no operation-related vibration impacts. Because implementation of the proposed Project would not result in exposure of persons to or generation of excessive groundborne vibration, it also would not expose them to or generate excessive groundborne noise levels. Consequently, there would be no groundborne noise-related impact associated with operation and maintenance of the Project.

- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels: *LESS THAN SIGNIFICANT IMPACT.***

The eastern-most portions of the Project alignment are located within 2 miles of Murray Field Airport, a public airport operated by Humboldt County. However, the entire Project alignment would be located outside noise impact areas (60 dBA CNEL) associated with the airport (Humboldt County, 2017). Similarly, the western portions of the Project alignment are within 2 miles of the Samoa Field Airport in the City of Eureka. Though aircraft noise could be audible to Project workers in the area, noise from aircraft activity would be much less than the noise from construction equipment they would be operating. Therefore, the Project would not expose people residing or working in the Project area to excessive noise levels from aircraft operations. This impact would be less than significant.

Mitigation: None required.

3.13.5 References

California Department of Transportation (Caltrans), 2013. Transportation and Construction Vibration Guidance Manual, September 2013.

City of Eureka, 2018. City of Eureka 2040 General Plan, adopted October 15, 2018. Available at <https://www.ci.eureka.ca.gov/civicax/filebank/blobdload.aspx?BlobID=15394>

Federal Highway Administration, 2017. Construction Noise Handbook, Table 9.1 – RCNM Default Noise Emission Reference Levels and Usage Factors, last updated August 24, 2017. Available at https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm

Federal Transit Administration (FTA), 2018. Transit Noise and Vibration Impact Assessment Manual, September 2018. Available online at: <https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/noise-and-vibration>.

Humboldt County, 2017. Humboldt County General Plan for the Areas Outside of the Coastal Zone, adopted October 23, 2017. Available at <https://humboldt.gov/DocumentCenter/View/61984/Humboldt-County-General-Plan-complete-document-PDF>

Los Angeles World Airports (LAWA), 2012. LAX Specific Plan Amendment Study Environmental Impact Report, Section 4.10. Available online at: <https://lawamediastorage.blob.core.windows.net/lawa-media-files/media-files/lawa-web/lawa-our-lax/specific-plan-amendment-study/draft-eir/lax-spas-deir-041001-aircraft-noise.pdf>

Parmar, Jignesh. 2011. What is Corona Effect. March 23. Accessed October 18, 2016. <https://electricalnotes.wordpress.com/2011/03/23/what-is-corona-effect/>

U.S. Department of Transportation (U.S. DOT), Federal Aviation Administration. Integrated Noise Model, version 7.0d. September 24, 2013.

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3.14 Population and Housing

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
14. POPULATION AND HOUSING — Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

This section evaluates the potential for construction, operation, and maintenance of the proposed Project to result in impacts related to population and housing in the study area. For purposes of the evaluation of potential population and housing impacts, the study area is defined as the footprint of all components of the Project, including all areas of temporary and/or permanent ground disturbance and the surrounding communities within which the Project would be constructed and operated, as described below.

3.14.1 Environmental Setting

The proposed Project would be constructed within unincorporated Humboldt County and the City of Eureka. The Project would be located in an area that includes a mix of land uses including residential, agricultural, and timberland (see Section 3.11, Land Use and Planning).

Population

Table 3.14-1 summarizes projected population growth from 2012 to 2050 for Humboldt County and the State of California. As demonstrated in the table, the population in the County is expected to increase just 3.6 percent over this 38-year period. When compared to population growth in this period for the state as a whole (28.2 percent), Humboldt County is expected to experience much more gradual population growth.

**TABLE 3.14-1
PROJECTED POPULATION GROWTH, 2012 – 2050**

Area	2012 Population	Projected 2020 Population	Projected 2050 Population	Numeric Change 2012-2050	% Change 2012 - 2050
Humboldt County Total	134,893	136,621	139,759	4,866	3.6%
California	38,045,271	40,467,295	48,762,709	10,717,438	28.2%

SOURCE: California Department of Finance (DOF), 2019a.

As described in the Municipal Service Review for the City of Eureka, the City is considered to be at or near full buildout within the existing City limits and the population within the City limits has

remained fairly constant in recent decades. The majority of development in the Eureka area in recent years has been outside the City limits; the population of this area is nearly equal to that within the City boundaries. Future development is expected to occur in unincorporated neighborhoods near the City boundary (City of Eureka, 2014).

Housing

Table 3.14-2 presents housing data for Humboldt County, the City of Eureka, and unincorporated areas of the County. As reflected in Table 3.14-2, vacancy rates in Humboldt County as a whole are approximately 8.5 percent, 11.1 percent in unincorporated Humboldt County, and 4.9 percent in the City of Eureka. In addition to permanent housing options, there are numerous hotels, motels, and other temporary housing options in the area which could be available for construction workers.

**TABLE 3.14-2
2019 HOUSING DATA ESTIMATES**

Jurisdictional Area	Total Housing Units	Occupied Housing Units	Vacant Housing Units	Vacancy Rate (percent)
City of Eureka	11,960	11,374	586	4.9%
County of Humboldt, Unincorporated	34,861	30,990	3,871	11.1%
Humboldt County Total	63,138	57,757	5,381	8.5%

SOURCE: DOF, 2019b

Employment

In July 2019, it was estimated that there were approximately 2,200 individuals employed in the construction industry in Humboldt County and that the unemployment rate for the County as a whole was approximately 4.0 percent (Employment Development Department [EDD], 2019a; EDD 2019b). According to employment projections by occupation for the North Coast Region, employment in construction occupations is expected to increase between 13.6 and 16.7 percent by 2026 (EDD, 2019c).

3.14.2 Regulatory Setting

Federal/State

No federal/State regulations apply to population and housing within the study area.

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction.”

The discussion below presents local policies and regulations for informational purposes only; the CPUC does not consider these regulations “applicable” as that term is used in CEQA.

Humboldt County Association of Governments (HCAOG) Regional Housing Needs Assessment

The HCAOG is a regional planning agency comprised of representatives from Humboldt County and seven city governments, including the City of Eureka, which serves a forum for regional decision making. HCAOG developed the 2018-2027 Regional Housing Needs Allocation (RHNA) in coordination with the California Department of Housing and Community Development to determine the existing and projected housing needs for Humboldt County in order to meet state housing needs. The RHNA determined that over the next planning period (2018-2027) the Humboldt County needs to provide approximately 3,390 total housing units. The City of Eureka is intended to provide 952 of these units and unincorporated Humboldt County is intended to provide 1,413 of these units (HCAOG, 2018).

Humboldt County General Plan

The Draft Housing Element of the Humboldt County General Plan (County of Humboldt, 2019) includes objectives, policies, and programs supporting the County’s major goals related to population and housing, which include providing a variety of housing and tenancy types at a range of prices, residential neighborhoods that respect unique local character and the natural environment, and affordable and suitable housing for all economic segments, with emphasis on the housing needs of lower income households and households with special needs. Specific priorities outlined in the Housing Element include increasing the supply of land for housing and broadening emergency shelter options for homeless individuals. As described in the Housing Element, during the last RHNA planning period, Humboldt County was responsible for providing 1,133 housing units in unincorporated areas and fell short of this goal by 584 units (Humboldt County, 2019).

City of Eureka General Plan Housing Element

The City of Eureka General Plan Housing Element includes goals, policies and programs focused on issues of housing in the City of Eureka. The overarching goal outlined in the Housing Element is to provide decent, safe, sanitary, affordable housing regardless of income. The Housing Element contains a number of goals and policies that are intended to facilitate the development of housing that is in accordance with the City’s overarching housing goal (City of Eureka, 2014).

3.14.3 Applicant Proposed Measures

No Applicant Proposed Measures (APMs) have been proposed by PG&E to reduce potential population and housing-related impacts of the Project.

3.14.4 Environmental Impacts

Discussion

- a) **Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure): *LESS THAN SIGNIFICANT IMPACT.***

The proposed Project does not include the construction of new homes or businesses and, as a result, would not directly induce substantial temporary or permanent population growth in the study area. The Project could indirectly induce population growth in the study area if it resulted in an increase in local population. During the construction period, the Project would employ up to 50 construction workers working in several different crews concurrently at various Project locations. As mentioned in Section 3.14.1, Environmental Setting, there are approximately 2,200 individuals employed in the construction industry in Humboldt County; therefore, a sufficiently large labor pool exists from which the Project could draw. Because construction workers are likely to be a mix of PG&E employees and general construction workers residing in Humboldt County, the Project would not require workers to relocate to the area for construction of the Project. Therefore, Project construction is not expected to induce in-migration. Project operation and maintenance activities are expected to be similar as existing operation and maintenance activities and would not require substantial numbers of additional full-time employees.

As described in Section 2.6, Operation and Maintenance, maintenance of the Project would be substantially similar to existing maintenance activities along the Project alignment. Therefore, operation and maintenance activities would not result in any direct impact to unplanned population growth due to the in-migration of operation and maintenance staff.

Regarding indirect impacts to population growth due to the extension of infrastructure, operation of the proposed Project would not provide access to previously inaccessible areas, extend public services to previously unserved areas, or cause new development elsewhere. As described in Section 2.1, Introduction, the Project is designed to address maintenance needs on an existing power line. The Project is intended to address curtailment and reliability issues and is not intended to extend power lines to areas that are not already served. Therefore, the Project is not proposed to advance growth in the area, but rather to address existing service issues. PG&E would continue to meet its obligation, as the area's electric utility provider, to accommodate growth already contemplated by the local land use jurisdictions in its service area. Therefore, the Project is intended to bring improved reliability for the existing population in the service area, and provide service for planned, projected growth. As a result, construction and operation of the Project would not directly or indirectly induce in-migration during construction or operation and maintenance. The Project would have a less than significant indirect impact on population growth associated with extension of infrastructure.

Mitigation: None required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere: *NO IMPACT*.

The proposed Project would be constructed primarily within existing PG&E right-of-way and would run along existing roads and power lines. Therefore, construction of the Project would not result in the displacement of existing homes and would have no impact under this criterion.

3.14.5 References

- California Department of Finance (DOF), 2019a. Total Estimated and Projected Population for California and Counties: July 1, 2010 to July 1, 2060 in 1-year Increments, May, 2019. Available online at <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/>. Accessed on August 23, 2019.
- California Department of Finance (DOF), 2019a. Report E-5, Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011-2019, with 2010 Benchmark, May 1, 2019. Available online at <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/>. Accessed on August 23, 2019.
- City of Eureka, 2014. Municipal Service Review. Adopted January 15, 2014.
- City of Eureka, 2014. General Plan, Housing Element. Available online at http://www.eureka2040gpu.com/project_document_library.html. Accessed August 23, 2019.
- County of Humboldt, 2019. County of Humboldt 2019 Draft Housing Element. Available online at <https://humboldt.gov.org/574/Housing-Element>. Accessed August 23, 2019.
- Employment Development Department (EDD), 2019a. Humboldt County Profile, Unemployment Rate and Labor Force. Available online: <https://www.labormarketinfo.edd.ca.gov/cgi/databrowsing/localAreaProfileQSResults.asp?selectedarea=Humboldt+County&selectedindex=12&menuChoice=localareapro&state=true&geogArea=0604000023&countyName=&submit1=View+Local+Area+Profile> Accessed August 23, 2019.
- EDD, 2019b. Employment by Industry (Not Seasonally Adjusted) in Humboldt County. July 2019. Available online at: <https://www.labormarketinfo.edd.ca.gov/cgi/databrowsing/localAreaProfileQSMOREResult.asp?menuChoice=localAreaPro&criteria=current+employment+statistics+%28ces%29&categoryType=employment&geogArea=0604000023&more=More>. Accessed August 23, 2019.
- EDD, 2019c. Fast growing occupations in North Coast Region 2016-2026. Available online at: <https://www.labormarketinfo.edd.ca.gov/cgi/databrowsing/localAreaProfileQSMOREResult.asp?menuChoice=localAreaPro&criteria=fast+growing+occupations&categoryType=employment&geogArea=0689060003&more=More>. Accessed August 23, 2019.
- Humboldt County Association of Governments (HCAOG), 2018. 2018-2027 Regional Housing Needs Assessment. Available online at: <https://www.hcaog.net/regional-housing-needs-allocation-rhna> Accessed August 23, 2019.

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3.15 Public Services

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
15. PUBLIC SERVICES — Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

This section presents information regarding existing public services including fire and police protection, schools, parks, libraries, and other public facilities in the vicinity of the proposed Project alignment, discussed by jurisdiction below. For the purposes of this analysis, the study area includes the footprint of all components of the Project including the proposed alignment, all areas of temporary and/or permanent ground disturbance, as well as public service facilities serving residents and visitors within five miles¹ of the proposed Project alignment.

3.15.1 Environmental Setting

Fire Protection

The Humboldt Bay Fire Joint Powers Authority (HBF), consolidated the Humboldt No. 1 Fire Protection District and the City of Eureka Fire Department. HBF provides service to approximately 56,000 residents within the City of Eureka and the surrounding Greater Eureka Area, including critical infrastructure, rescue, and emergency medical services. The HBF also provides fire protection for a large area in the Wildland Urban Interface² in the outlying areas of the jurisdiction (HBF, 2019). HBF is a full-service, all-risk fire department responding to approximately 6,000 calls for service each year from five stations (Humboldt County, 2018).

Wildland fire protection in California is the responsibility of either the State, local government, or the federal government. Local responsibility areas include incorporated cities, cultivated agricultural lands, and portions of the desert. Local responsibility area fire protection is typically

¹ Five miles was selected as a reasonable distance within which potential impacts associated with public services could occur as a result of the Project.

² The Wildland Urban Interface is defined as an area where homes are built near or among lands prone to wildland fire (International Association of Fire Chiefs [IAFC], 2019).

provided by city fire departments, fire protection districts, counties, and by CAL FIRE under contract to local government (CAL FIRE, 2012). Because the proposed Project alignment is mostly located within a Local Responsibility Area, fire protection along the alignment is provided primarily by HBF rather than CAL FIRE (CAL FIRE, 2007).

Law Enforcement

Humboldt County

The Humboldt County Sheriff's Office is responsible for law enforcement in the unincorporated area and provides a range of law enforcement services throughout the County. The Sheriff's Office facilities are insufficient for current needs and the Department does not have adequate funding to maintain generally accepted office-to-population ratios (Humboldt County, 2017).

City of Eureka

The Eureka Police Department provides law enforcement for residents living within the City of Eureka. The department is headquartered in downtown Eureka and consists of two Service Areas, each of which is managed by a Police Captain: Service Area 1 consists of the south and west portions of Eureka, and Service Area 2 consist of the north and east sections of Eureka (City of Eureka, 2018).

Schools and Libraries

City of Eureka

The Eureka City Schools is the largest school district near the proposed Project alignment, operating several elementary schools in the City, two middle schools, and Eureka Senior High. **Table 3.15-1** displays schools, addresses, and their proximity to Project facilities.

TABLE 3.15-1
SCHOOLS WITHIN THE PROJECT STUDY AREA

School	Address	Approximate Proximity to Project Alignment
Grant Elementary School	3901 G Street	Located along the Project alignment
Alice Birney Elementary School	717 South Avenue	0.5 mile from the Project alignment
Pacific View Charter School	115 Henderson Street	1.6 miles from the Project alignment
Pacific View Charter School	2937 Moore Ave	0.6 mile from the Project alignment
Catherine L. Zane Middle School	2155 S Street	2.4 miles from the Project alignment
Eureka High School	1915 J Street	2.7 miles from the Project alignment
Eureka Community School	1820 W 6th Street	4.2 miles from the Project alignment
Lafayette Elementary School	3100 Park Street	1.8 miles from the Project alignment

The Eureka Main Library is considered the main branch of the eleven branches of the Humboldt County Library System, which operates throughout the County. The closest libraries to the Project alignment are: Eureka Main Library, Humboldt County Law Library, and the Humboldt

County Library. All three of the aforementioned libraries are within a few blocks of each other and approximately three miles north of the Project alignment.

Parks

Humboldt County

Humboldt County consists of an abundance of natural resources and outdoor recreational opportunities. Humboldt County contains more than 550,000 acres of protected open space, forests, and recreational areas, including four federal parks and beaches; ten state parks; and 16 county parks and beaches, recreational areas, and reserves (Humboldt County, 2017).

City of Eureka

Eureka's coastal setting, and natural surroundings contribute to the recreational opportunities in the area. Within the City limits there are approximately 121.5 acres of City maintained parks, including seven neighborhood parks and six community park facilities (City of Eureka, 2018). The City of Eureka's Community Services Department oversees both the Parks Division and the Recreation Division, and is responsible for Facility Maintenance, as well as the Harbor and Public Marina. These divisions are responsible for providing and maintain the services of the City's parks, the Sequoia Park Zoo, environmental programs, waterfront trails, and recreational programs. For more information on parks and recreational facilities, see Section 3.16, Recreation.

3.15.2 Regulatory Setting

Federal and State

No federal or state laws, regulations, or policies pertaining to public services would apply to the Project.

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction." The discussion below presents local policies and regulations for informational purposes only; the CPUC does not consider these regulations "applicable" as that term is used in CEQA.

Humboldt County General Plan

The Community Infrastructure and Services Element of the Humboldt County General Plan contains the following goals relevant to public services for the study area (Humboldt County, 2017).

IS-G1: Adequate Infrastructure and Services. Well maintained public infrastructure and services supporting existing development.

IS-G2: Sustainable Funding. Adequate and sustainable revenue sources for capital improvements and maintenance of infrastructure and services.

IS-G3: Interagency Coordination. Coordinated planning, prioritization, funding, and implementation of infrastructure and public service projects across jurisdictional boundaries.

City of Eureka General Plan

The City of Eureka 2040 General Plan discusses goals and policies that encourages exceptional and effective community services that create a healthy and safe environment for its residents, labor force, and visitors. Section 3.3: Our Civic Resources, of the 2040 General Plan, includes the following goals and policies relevant to public services.

- **Parks and Recreation**

Goal PR-1: A well-maintained park and recreation system that includes sufficient facilities to effectively serve the diverse needs and interests of all members of Eureka’s population, while protecting environmentally sensitive resources.

- **Law Enforcement**

Goal CS-1: A safe and secure Eureka, and responsive and equitable law enforcement to effectively meet the demands of an increasing population and workforce.

CS-1.4: Response Time. Strive to maintain an average response of three (3) minutes for calls for service for critical life-threatening emergencies

CS-1.5: Annual Assessment. Annually assess police facilities and equipment needs and develop strategies that, at a minimum maintain the police staff and response time standards.

- **Fire Protection**

Goal CS-2: Protection of Eureka residents, visitors, property, and natural resources from injury and loss of life from fire hazards.

CS-2.2: Facility Standards. Ensure that water main size, water flow, fire hydrant spacing, and other fire facilities meet City standards

CS-2.4: Response Time. Work with Humboldt Bay Fire to strive to maintain an average response time of three (3) minutes for all service calls, including emergency medical service (EMS) calls.

- **Schools**

Goal CS-3: Excellent educational opportunities and facilities throughout Eureka.

CS-3.8: Safe Routes to Schools. Continue to coordinate with local school districts, Humboldt County, and the Humboldt County Association of Governments to install infrastructure improvements and traffic calming measures, as well as pursue funding, to ensure safe pedestrian and student travel to and from schools.

- **Libraries**

Goal CS-4: Library facilities that continually provide cultural and academic enrichment for the community.

CS-4.1: Adequate Services, Facilities, and Programs. Continue to support Humboldt County Public Library in its efforts to modernize and provide adequate and equitably distributed library services, facilities, and programs that meet the needs of all residents.

3.15.3 Applicant Proposed Measures

The following measures pertaining to public services have been proposed by PG&E and would be implemented as part of the proposed Project.

APM HAZ-3: Fire Risk Management. PG&E will follow its standard fire risk management procedures, including safe work practices, work permit programs, training, and fire response. Project personnel will be directed to park away from dry vegetation. During fire season, all motorized equipment driving off paved or maintained gravel/dirt roads will have federal- or state-approved spark arrestors. All off-road vehicles will be equipped with a shovel and a backpack pump filled with water and all fuel trucks will carry a large fire extinguisher with a minimum rating of 40 B:C.

APM WF-3: Construction Fire Prevention Plan. PG&E shall prepare a Construction Fire Prevention Plan consistent with the measures identified in APM HAZ-3, Fire Risk Management, that addresses procedures for fire prevention at active construction sites. The Construction Fire Prevention Plan shall include requirements for carrying emergency fire suppression equipment, conducting “tailgate meetings” that cover fire safety discussions, restricting smoking, idling vehicles, and restricting construction during red flag warnings. The Construction Fire Prevention Plan shall address the following fire risk reduction measures:

- Training and briefing all personnel working on the project in fire prevention and suppression methods.
- Conducting a fire prevention discussion at each morning’s safety meeting.
- Storage of prescribed fire tools and backpack pumps with water within 50 feet of work activities.
- Assigning personnel to conduct a “fire watch” or “fire patrol” to ensure that risk mitigation and fire preparedness measures are implemented, immediate detection of a fire, and to coordinate with emergency response personnel in the event of a fire.

The Construction Fire Prevention Plan will be submitted to the CPUC for review at least 30 days prior to construction.

APM TT-3: Coordinate Road Closures with Emergency Service Providers and School Districts. At least 24 hours prior to implementing any road or lane closure, PG&E will coordinate with applicable emergency service providers and school districts in the project vicinity. PG&E will provide information regarding the road or lanes to be closed, the anticipated date, time, and duration of closures, and a contact telephone number.

3.15.4 Environmental Impacts

Discussion

- a) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:**

a.i) Fire protection: *LESS THAN SIGNIFICANT IMPACT.*

The proposed Project would not include or require the provision of new or altered fire protection facilities, nor would the Project include or require increases in staff levels for local or regional fire protection. Project construction would include replacement of existing conductors, poles, and construction of new lattice steel towers. Installation of these components could result in an emergency situation that could require emergency fire services. However, construction impacts would be temporary in nature, lasting approximately 8 months. Moreover, in the event of an emergency, APM HAZ-3, APM WF-3, and APM TT-3 would result in the preparation of fire prevention measures and emergency service coordination during construction. Therefore, the Project's effect on fire protection service ratios, response times, or other performance objectives would not result in the need for new or physically altered fire protection facilities during construction. A less than significant impact would result from Project construction.

As the Project does not anticipate any changes to existing operation and maintenance activities, the Project would not result in the need for new or physically altered fire protection facilities during operation and maintenance. No impact would result during operation and maintenance.

Mitigation: None required.

a.ii) Police protection: *LESS THAN SIGNIFICANT IMPACT.*

Project construction would include staging and use of materials and heavy equipment that could generate minor increases in crime or accidents in the local area. Such incidents and/or accidents could lead to a negligible increase in the need for police, sheriff, or other emergency service personnel during the construction period. However, this possible increase in the need for public safety support would be temporary, lasting no longer than the proposed 8-month construction period. Project construction would require the use of temporary guard structures and snub poles for overhead conductor crossings potentially impacting traffic conditions and thereby delaying public safety response for various roadways, in addition to potential lane closures. Such traffic control measures, discussed in Section 3.17, Transportation and Traffic, could present challenges for acceptable public safety response times. However, APM TT-3 would result in PG&E's coordination with local emergency response agencies during construction within existing public roadways to allow safe passage access by emergency vehicles and equipment. Therefore, the Project's effect on police protection service ratios, response times, or other performance objectives would not result in the need for new or physically altered police protection facilities during construction. A less than significant impact would result.

Operation and maintenance would continue as under existing conditions and would not alter governmental facilities, such that significant impacts to acceptable service ratios, response times, and performance objectives would occur. No impact would occur regarding police protection services during Project operation and maintenance.

Mitigation: None required.

a.iii) Schools: *NO IMPACT.*

The proposed Project would not include or require the construction of new schools or the expansion of existing schools. At the peak of construction, the Project would employ up to 50 construction workers temporarily, and operation and maintenance of the Project would not result in any long-term permanent staff increases. Therefore, there would be no substantial and/or permanent population increase caused by the Project that would result in the need for new or physically altered schools. There would be no impact to schools.

a.iv) Parks: *NO IMPACT.*

As stated in Section 3.14, Population and Housing, the proposed Project does not anticipate inducing population growth beyond what is already projected to occur in the region. Additionally, no housing is proposed to be constructed as part of the Project and the parks in the study area would continue to provide sufficient capacity to serve the surrounding community. The Project would neither add to nor result in the need for construction of additional parks or expanded parks in the study area. There would be no impact to parks.

a.v) Other public facilities: *NO IMPACT.*

The Project would not increase the population beyond levels already projected to occur in the region. No other public facilities such as libraries are proposed or would be required as a result of construction and operation of the Project. There would be no impact.

3.15.5 References

CAL FIRE, 2007. Draft Fire Hazard Severity Zones in Local Responsibility Area. Available online at: https://osfm.fire.ca.gov/media/6679/fhszl06_1_map12.pdf

Humboldt County, 2017. Humboldt County General Plan. Adopted October 23, 2017.

Humboldt County, 2018. Local Fire Protection Map. Available online at: <https://humboldt.gov/DocumentCenter/View/65491/2017-Humboldt-County-Fire-Chiefs-Association-Annual-Report-v2>

Humboldt Bay Fire (HBF), 2019. Humboldt Bay Fire. Available online at: <http://www.hbfire.org/>.

International Association of Fire Chiefs (IAFC), 2019. Wildland Urban Interface. Available online at: <https://www.wildlandfirersg.org/About/Wildland-Urban-Interface>. Accessed June 21, 2019.

3.16 Recreation

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
16. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

This section analyzes potential impacts of the Project on parks and recreational resources. The study area for this analysis consists of the footprint of all components of the Project including all areas of temporary and/or permanent ground disturbance as well as neighboring parks, open space, and other lands and facilities used for recreational purposes within one mile¹ of the proposed Project alignment.

3.16.1 Environmental Setting

Humboldt County

Humboldt County has a wealth of outdoor recreational opportunities. More than 20 percent of the County's 2.3 million acres are protected open space, forests, and recreation areas. Within the County, there are 10 federal and state parks and 16 County parks and beaches operated by the Humboldt County Parks Division (Humboldt County, 2017). The Humboldt Bay Harbor, Marina, rivers, and waterways also offer an abundance of recreational opportunities such as boating, kayaking, and fishing. Several recreational resources are located within the study area. The closest recreational resources to the study area are the McKay Community Forest, Redwood Acres Fairgrounds, and the Redwood Fields Ballpark, which are all located towards the eastern end of the Project alignment.

The Project alignment passes through the McKay Community Forest (see **Figure 3.2-1**). The forest is located southeast of Eureka within the watershed of Ryan Creek, a tributary of Humboldt Bay. The forest currently contains 1,000 acres that were acquired by Humboldt County from Green Diamond Resource Company in 2014. An additional 197-acre expansion connecting the McKay Community Forest with Eggert Road is proposed and pending. According to the McKay Community Forest Trail Plan, some informal trails currently exist, but they are not linked to appropriate access points, do not have a logical configuration, and are in poor condition (Humboldt County, 2019).

¹ One mile was selected as a reasonable distance within which to evaluate potential effects of the Project as beyond this distance impacts on recreational resources would be expected to either not occur or be imperceptible.

Approximately 1.6 miles of the Project alignment would cross the Redwood Acres Trail Unit and the North McKay Trail Unit. The trail plan proposes to provide over three miles of trails that would lead down to Lower Ryan Creek passing through redwood stands and logging railroad features in the Redwood Acres Trail Unit (Humboldt County, 2019). The North McKay Trail Unit is located directly south of the Redwood Acres Trail Unit and provides connection from the narrower northern portion of the forest to the wider southern portion. An additional new trail is anticipated to be constructed along the hillside east of Redwood Fields (Humboldt County, 2019).

The Redwood Acres Fairgrounds, located directly north and adjacent to the Project alignment, provides equestrian recreational entertainment for the public. A staging yard for the proposed Project would be located on a disturbed area of the eastern portion of Redwood Acres Fairgrounds that currently allows access to McKay Community Forest. The Redwood Fields Ballpark is located directly south and within 300 feet of the Project alignment.

City of Eureka

Eureka's natural coastal setting contributes to the recreational opportunities in the area. Within the City limits there are approximately 121.5 acres of City-maintained parks, including seven neighborhood parks and six community park facilities. The City of Eureka's Community Services Department oversees both the Parks Division and the Recreation Division, and is responsible for Facility Maintenance, as well as the Harbor and Public Marina (Eureka, 2018). The closest parks located within the study area are Highland Park and Playground, Sequoia Park Zoo and Garden, and the Hartman/Kennedy Ballfields, which are all within one mile of the Project alignment.

3.16.2 Regulatory Setting

Federal

No federal laws, regulations, or policies pertaining to recreation would apply to the Project.

State

No state laws, regulations, or policies pertaining to recreation would apply to the Project.

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction." The discussion below presents local policies and regulations for informational purposes only; the CPUC does not consider these regulations "applicable" as that term is used in CEQA.

Humboldt County General Plan

The Conservation and Open Space Elements and the Community Infrastructure and Services Chapters of the Humboldt County General Plan identifies goals and policies regarding parks and recreation that pertain to the proposed Project (Humboldt County, 2017).

Goal CO-G1: Conservation of Open Spaces. Open spaces that distinguish and showcase the county's natural environment for the enjoyment of residents and visitors, including working resource lands that provide livelihoods and profitable economic returns while maintaining open space and ecological values.

Goal CO-G3: Conservation and Open Space Program. An Open Space and Conservation Program that implements this Element's policies and is complimentary to the conservation and open space lands and programs of cities, tribes, and state and federal agencies.

Goal CO-G4: Parks and Recreation. Well maintained and accessible parks offering a range of popular recreation opportunities and a countywide trail system that meets future recreational and non-motorized transportation demands.

Policy CO-P1: Conservation and Open Space Program. The County shall inventory and appropriately zone conservation and open space lands and work to protect these lands through development review; Williamson Act programs; TPZ zoning designations; conservation easement and recreation programs; and support for continued resource production.

Policy CO-P5: Planning for Recreational Needs within Communities. Policies addressing community recreational needs shall be prepared as part of planning efforts within each community. Implement park in-lieu fee programs in major communities.

Policy CO-P6: Develop and Maintain County Parks. Secure, develop, and maintain county parks and recreation areas that are highly accessible to the public in order to serve the present and future needs of county residents.

IS-P18: Parks and Recreation Service in Urban Development Areas. Encourage and support special districts to provide neighborhood parks and recreation services within Urban Development Areas.

IS-S10: Interim Parks and Recreation Standards. Parks and recreation standards contained in the Government Code Section 66477 shall be used as the standard for parkland dedication in the review of divisions of land for which a tentative map is required pursuant to Section 66426, until such time that the County has established parks and recreation standards for new development that differentiate between urban and rural settings; specify acreage of park land of 3 acres per 1,000 residents; and specify land dedication, in-lieu fee, or other mechanisms to fund park and recreation improvements and funding for operation and maintenance.

IS-IM16: Parks and Recreation. Prepare parks and recreation standards for new development that consider community preference and differentiate between urban, suburban, and rural settings; specify acreage of park land per 1,000 residents; and specify land dedication, in lieu fees, or other mechanisms to make park and recreation improvements.

City of Eureka General Plan

The City of Eureka 2040 General Plan discusses the following goals and policies that pertain to recreation and park resources.

Goal PR-1: A well-maintained park and recreation system that includes sufficient facilities to effectively serve the diverse needs and interests of all members of Eureka's population, while protecting environmentally sensitive resources.

PR-1.2: Parkland Standards. Encourage a diverse and accessible parkland system through a combination of active and passive parks and recreational facilities, in accordance with the definitions and standards provided in Table PR-1. Retain flexibility in applying parks standards to best meet the existing and future needs of the community.

PR-1.3: Park Enhancement. Continue to upgrade and enhance the existing park system with a diverse and accessible range of parks and recreational facilities to better serve park users of all abilities.

3.16.3 Applicant Proposed Measures

The following measure pertaining to recreation has been proposed by PG&E and would be implemented as part of the Project.

APM REC-1: Coordination and Signage. PG&E will coordinate with the operators of the Redwood Fields Ballpark, Redwood Acres Fairgrounds, and McKay Community Forest during project construction activities to minimize any potential construction impacts from the project. Signage notifying of construction activities will be posted at these recreational facilities at least one week in advance of construction.

3.16.4 Environmental Impacts

Discussion

- a) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated: *LESS THAN SIGNIFICANT IMPACT.***

Temporary access restrictions associated with Project construction could limit the public use of recreational facilities within the study area. Such Project-related closures, obstructions, and related impacts could inadvertently lead to a temporary increase in the public's use of other recreational areas in the region during the 8-month construction period. The proposed Project would pass through two trail units of the McKay Community Forest (Redwood Acres and North McKay), and would be within 300 feet of Redwood Fields Ballpark. The Redwood Acres Trail Unit is planned to include equestrian access at the Redwood Acres west and south gates (Humboldt County, 2019). The North McKay Trail Unit's main trail would occupy an existing logging road at the bottom of the Ryan Creek valley. Construction activities within the McKay Community Forest would include replacement of 12 poles as well as reframing of two poles (see **Figure 2-5**). The staging yard on Redwood Acres Fairground may also temporarily block access to proposed trails in the McKay Community Forest, depending on the timing of construction of the proposed Project and trails proposed by the trail plan.

Construction activities described above could lead to a temporary increase in use of other recreational resources not directly affected by the Project if the informal trails and/or proposed trails are temporarily closed during Project construction. However, the region (i.e., Humboldt County and the City of Eureka) provides an array of federal, state, and local opportunities for public recreation, so it is reasonable to expect that any increased use resulting from Project-related displacement during construction readily could be absorbed by the several parks and trails in the area, including the Humboldt Bay Trail, 20-30 Park and Playground, Cooper Gulch, Carson Park and Playground, among others. The potential for substantial physical deterioration to occur at any one location would be negligible. Project construction would not deter the public from use of nearby recreational facilities such that a physical deterioration of the facility would occur. In addition, implementation of APM REC-1 would provide the public with advance notice of potential temporary closures due to the Project. No changes to existing operation and maintenance activities are anticipated; all annual inspections would continue to occur as under existing conditions. Therefore, indirect impacts related to an increased use of surrounding recreational facilities would be less than significant.

Mitigation: None required.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment: *NO IMPACT.*

The proposed Project would not require or include recreational facilities, nor would it increase population, necessitating construction or expansion of existing recreational facilities to maintain the recreational service goals of Humboldt County or the City of Eureka. Therefore, the Project would have no impact.

3.16.5 References

City of Eureka, 2018. City of Eureka 2040 General Plan. Adopted October 15, 2018. Available online at: <https://www.ci.eureka.ca.gov/civicax/filebank/blobdload.aspx?BlobID=15394>. Accessed on August 26, 2019.

Humboldt County, 2017. Chapter 10. Conservation and Open Space Elements, General Plan. Adopted October 23, 2017. Available online at: <https://humboldt.gov/DocumentCenter/View/61986/Chapter-10-Conservation-and-Open-Space-Elements-PDF>. Accessed on August 26, 2019.

Humboldt County, 2019. Draft McKay Community Forest Trail Plan. January 30, 2019. Available online at: <https://humboldt.gov/DocumentCenter/View/71096/McKay-Trail-Plan-1-30-2019-full-document>.

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3.17 Transportation

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
17. TRANSPORTATION — Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.17.1 Environmental Setting

The backbone of the regional transportation system in the Project area is Highway 101, which is a major north-south route of the U.S. Highway System that links communities on the northern California coast with San Francisco and points south. State Route (SR) 36 (south of the Project area) and SR 299 (north of the Project area) connect to Highway 101, providing regional access to the east. SR 36 runs west-east from Highway 101 near Fortuna, passes through the North Coast Range, and joins Interstate 5 at Red Bluff. SR 299 also runs west-east from the Highway 101 junction near Arcata, passes through the North Coast Range, and joins Interstate 5 at Redding. The local transportation system in the Project area includes roads maintained by Humboldt County and the City of Eureka, as well as various private roads. These roadways would be used to access the Project area during construction and operation. **Table 3.17-1** summarizes the characteristics of the study area roadways most likely to be affected by the proposed Project.

Existing Roadway Levels of Service

Level of service (LOS) is a qualitative measure that describes operational conditions as they relate to the traffic stream and perceptions by motorists and passengers, in terms of factors such as speed and travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience and safety. There are six levels of operational service, given letter designations from LOS A to LOS F, with LOS A representing the best operating conditions (free-flow) and LOS F the worst (severely congested flow with high delays). The ratio of a road's traffic volume to its capacity is computed, and the resulting volume/capacity (v/c) ratio is assigned an LOS grade, indicative of traffic conditions (see **Table 3.17-2** for the range of v/c ratios for each LOS, and **Table 3.17-3** for existing levels of service on Highway 101, SR 36, and SR 299).

**TABLE 3.17-1
SUMMARY OF STUDY AREA ROADWAY CHARACTERISTICS**

Roadway	Jurisdiction	Classification	No. of Lanes	Daily Traffic Volume	Peak-Hour Traffic Volume	Physical Relationship to Power Line
Highway 101 (at King Salmon Avenue)	Caltrans	Interstate	4	27,700	3,000	Access Road/ Overhead Crossing
Highway 101 (at Herrick Avenue)	Caltrans	Interstate	4	33,500	3,500	Access Road
Highway 101 (at 4th Street/Myrtle Avenue) ^a	Caltrans	Interstate	2	22,800	2,100	Access Road
SR 36 (at eastern limit of Alton)	Caltrans	State Route	2	5,200	540	Access Road
SR 299 (at Highway 101 Junction)	Caltrans	State Route	4	12,600	1,350	Access Road
S Broadway Street	Humboldt County	Urban Collector	2	N/A	N/A	Overhead Crossing
Humboldt Hill Road	Humboldt County	Urban Collector	2	N/A	N/A	Access Road/ Overhead Crossing
Elk River Road	Humboldt County	Rural Major Collector	2	N/A	N/A	Access Road/ Overhead Crossing
Pine Hill Road	Humboldt County	Local	2	N/A	N/A	Access Road
Gatliff Avenue	Humboldt County	Local	2	N/A	N/A	Access Road
Union Street	Humboldt County	Urban Collector	2	N/A	N/A	Access Road
Higgins Street	Humboldt County	Local	2	N/A	N/A	Overhead Crossing
F Street	Humboldt County	Urban Minor Arterial	2	N/A	N/A	Overhead Crossing
G Street	Humboldt County	Local	2	N/A	N/A	Overhead Crossing
Campton Road	City of Eureka	Urban Minor Arterial	2	N/A	N/A	Overhead Crossing
Vista Drive	City of Eureka	Local	2	N/A	N/A	Access Road
Bryeld Court	Humboldt County	Local	2	N/A	N/A	Access Road
Cedar Street	Humboldt County	Local	2	N/A	N/A	Overhead Crossing
Harris Street	Humboldt County	Urban Other Principal Arterial	2	N/A	N/A	Access Road
Mitchell Road	Humboldt County	Local	2	N/A	N/A	Access Road/ Overhead Crossing
Main Street	Humboldt County	Local	2	N/A	N/A	Overhead Crossing
Mitchell Heights Drive	Humboldt County	Local	2	N/A	N/A	Overhead Crossing

NOTE:

^a Highway 101 is one-way (southbound direction) at this location.

SOURCES: Caltrans, 2017; Humboldt County, 2017.

TABLE 3.17-2
DEFINITIONS OF FREEWAY LEVELS OF SERVICE (LOS)

LOS	V/C Ratio	Traffic Flow Characteristics
A	0.00 – 0.30	Free flow; negligible delays
B	0.31 – 0.50	Stable operations; minimal delays
C	0.51 – 0.71	Stable operations; acceptable delays
D	0.72 – 0.89	Approaching unstable operations; queue develop rapidly, but no excessive delays
E	0.90 – 1.00	Unstable operations; substantial delays
F	>1.00	Forced flow; jammed conditions

SOURCE: Transportation Research Board, 2000 Highway Capacity Manual

TABLE 3.17-3
EXISTING PEAK-HOUR LEVELS OF SERVICE ON REGIONAL STUDY AREA ROADWAYS

Roadway	Traffic Volume	Design Capacity ^a	V/C Ratio	LOS
Highway 101 (at King Salmon Avenue)	3,000	7,600	0.39	B
Highway 101 (at Herrick Avenue)	3,500	7,600	0.46	B
Highway 101 (at 4th Street/Myrtle Avenue) ^b	2,100	3,800	0.55	C
SR 36 (at eastern limit of Alton)	540	3,800	0.14	A
SR 299 (at Highway 101 Junction)	1,350	7,600	0.18	A

NOTES:

^a Design Capacity = 1,900 vehicles per hour per lane times the number of lanes (see Table 3.17-1)

^b Highway 101 is one-way (southbound direction) at this location.

SOURCES: Caltrans, 2017; 2000 Highway Capacity Manual.

Bicycle Facilities

Bikeways are typically classified as Class I, Class II, or Class III facilities, as defined by the State in Streets and Highway Code Section 890.4. Class I bikeways are bike paths with exclusive right-of-way for use by bicyclists or pedestrians. Class II bikeways are bike lanes striped with the paved areas of roadways and established for the preferential use of bicycles, while Class III bikeways are signed bike routes that allow bicycles to share streets or sidewalks with vehicles or pedestrians.

The Humboldt Regional Bicycle Plan describes existing and proposed bikeways within incorporated and unincorporated Humboldt County (HCAOG, 2018). In the County, the existing power line crosses the proposed Pacific Coast Bicycle Route at the following locations: along Highway 101 (Class III bikeway), at Humboldt Hill Road (Class III bikeway), and at four proposed Class II bikeways (Elk River Road, Herrick Avenue, F Street, and Walnut Drive). In the City of Eureka, the existing Class III bikeways on Walnut Street and F Street and the proposed Class II bikeway on Campton Road near Grant Elementary School are intersected by the existing power line. The existing power line does not cross any Class I bikeways.

Air Traffic Facilities

Samoa Field (formerly Eureka Municipal Airport, owned by the City of Eureka) is located approximately 2.5 miles north of Humboldt Bay Substation, across Humboldt Bay (Federal Aviation Administration [FAA], 2019a). The County-owned Murray Field is located approximately 1.2 miles from Humboldt Bay Substation (FAA, 2019b). These airports serve as general aviation facilities for the Eureka area (fuel is not available at Samoa Field). The California Redwood Coast – Humboldt County Airport, also known as the Arcata-Eureka Airport, is located approximately 13 miles north of the Humboldt Bay Substation and is the only airport in the county that offers commercial air service (FAA, 2019c). Murray Field Airport may be used for overnight storage of helicopters.

Public Transit and Rail Services

Humboldt County is served by several fixed-route public bus transit systems, including the Humboldt Transit Authority, which operates the Redwood Transit System, Willow Creek Transit Service, and Southern Humboldt Transit Systems; Arcata and Mad River Transit System; Eureka Transit Service (ETS); Blue Lake Rancheria Transit System; and Klamath-Trinity Non-Emergency Transportation (Humboldt Transit Authority, 2019). ETS serves the Project area, and the existing power line crosses one ETS bus route (the Red Route) at two locations.

Rail service in Humboldt County is limited to the North Coast Rail Authority (NCRA) and the Northwestern Pacific Railroad. NCRA owns the railroad between Arcata and Healdsburg but does not currently operate any freight or passenger service (Humboldt County, 2017). The Project alignment does not cross any active railroad tracks.

3.17.2 Regulatory Setting

Federal

U.S. Department of Transportation

The U.S. Department of Transportation (DOT) is the administering agency for the following regulations:

- Title 14 Code of Federal Regulations (CFR) Section 77.13(2)(i), which requires an applicant to notify the FAA of the construction of structures within 20,000 feet of the nearest point of the nearest runway of an airport with at least one runway longer than 3,200 feet.
- Title 14 CFR Section 77.17, which requires an applicant to submit a Notice of Proposed Construction or Alteration (FAA Form No. 7460-1) to the FAA for construction within 20,000 feet of the nearest runway of an airport with at least one runway longer than 3,200 feet.
- Title 14 CFR Sections 77.21, 77.23, and 77.25, which outline the criteria used by the FAA to determine whether an obstruction would create an air navigation conflict.
- Title 49 CFR Sections 171 through 177 (49 CFR §§171–177), which govern the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of transportation vehicles.

- Title 49 CFR Section 350–399 and Appendices A through G, Federal Motor Carrier Safety Regulations, which address safety considerations for the transport of goods, materials, and substances over public highways.
- Title 49 CFR Section 397.9, the Hazardous Materials Transportation Act of 1974, which directs DOT to establish criteria and regulations for the safe transportation of hazardous materials.

Americans with Disabilities Act

The proposed Project would involve the reconstruction of sidewalks at pole locations and would be required to comply with Americans with Disabilities Act (ADA) standards. The Department of Justice enacted the ADA in 1990, which adopted enforceable accessibility standards for facility design. The revised ADA standards, adopted in 2010, set minimum requirements for newly designed and constructed or altered state and local government facilities, public accommodations, and commercial facilities. State and local government facilities must follow the requirements of the 2010 Standards, including the 2010 Standards for State and Local Government Facilities: Title II, specifically:

- Title II regulations at 28 CFR Section 35.151; and
- 2004 ADA Accessibility Guidelines at 36 CFR part 1191, appendices B and D.

State

California Department of Transportation (Caltrans) owns the rights-of-way for state highways, including any on- and off-ramps that provide access to the Project area. Any Project-related work within the state rights-of-way requires a ministerial Encroachment Permit from Caltrans. Caltrans is also the administering agency for regulations related to traffic safety, including the licensing of drivers, oversized (weight and load) vehicle limitations, transportation of hazardous and combustible materials, and the safe operation of vehicles.

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction.” The discussion below presents local policies and regulations for informational purposes only; the CPUC does not consider these regulations “applicable” as that term is used in CEQA.

Humboldt County General Plan

The Circulation Element (Chapter 7) of the Humboldt County General Plan (General Plan) describes the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local transportation facilities. The County maintains over 1,400 miles of roads and streets, and 378 miles of state highways (Humboldt County, 2017). Humboldt County strives to maintain LOS “C” operation on all roadway segments and

intersections, except for Highway 101, where LOS “D” is acceptable. The Community Infrastructure and Services Technical Report (Technical Report), prepared to support the General Plan, lists roadways in the south Eureka area that are operating at or above capacity during peak hours. The General Plan and Technical Report both provide recommendations on improvements to circulation in the County.

Humboldt County Association of Governments

The Humboldt County Association of Governments (HCAOG) 20-Year Regional Transportation Plan 2017 Update (RTP), prepared by the HCAOG and adopted December 2017, is a long-range transportation planning document for the County. Updates are prepared in coordination with Caltrans District 1, local transit authorities and transportation agencies, local tribes, and other stakeholders to address all modes of transportation. The RTP describes the condition of existing facilities and provides recommendations on how to improve circulation throughout the County. HCAOG’s goal is to facilitate and further develop transportation options including complete streets, trails, transit, bicycling, walking, ride-sharing and bike-sharing, freight transport, and emergency transportation (HCAOG, 2017).

City of Eureka General Plan

Roadways, bikeways, public transit, and other components of the transportation system are described in the Infrastructure chapter of the City’s General Plan (City of Eureka, 2018). The document also provides goals and policies for improving the transportation system. The City of Eureka’s goal is to maintain LOS “C” operation on all roadway segments, except for any portion of Highway 101, where LOS “D” is acceptable.

3.17.3 Applicant Proposed Measures

The following measures pertaining to transportation have been proposed by PG&E and would be implemented as part of the proposed Project.

APM TT-1: Temporary Traffic Controls. PG&E will obtain necessary transportation and encroachment permits from Caltrans and the local jurisdictions, as required, including those related to State Route crossings and the transport of oversized loads and certain materials, and will comply with permit requirements designed to prevent excessive congestion or traffic hazards during construction. PG&E will develop road and lane closures or width reduction or traffic diversion plans as required by the encroachment permits. Construction activities that are in, along, or cross local roadways will follow best management practices and local jurisdictional encroachment permit requirements, which may include traffic controls such as signs, cones, and flaggers to minimize impacts on traffic and transportation in the Project area. PG&E will coordinate with ETS regarding the schedule and scope of construction activities that could interfere with bus routes crossed by the Project alignment and will coordinate temporary relocation of bus stops if necessary.

APM TT-2: Air Traffic Control. PG&E will implement the following protocols related to helicopter use:

- PG&E will comply with all applicable FAA regulations regarding air traffic;
- PG&E will prepare a Helicopter Use Plan;
- Helicopter operators will coordinate all project helicopter operations with local airports before and during project construction; and
- PG&E will comply with FAA requirements for helicopter activities in residential areas that will reduce safety risks, and if necessary coordinate with residents that may need to temporarily evacuate their properties.

APM TT-3: Coordination Road Closures with Emergency Service Providers and School Districts. At least 24 hours prior to implementing any road or lane closure, PG&E will coordinate with applicable emergency service providers and school districts in the Project vicinity. PG&E will provide information regarding the road or lanes to be closed, the anticipated date, time, and duration of closures, and a contact telephone number.

3.17.4 Environmental Impacts

Discussion

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities: *LESS THAN SIGNIFICANT IMPACT.*

Most construction activities would occur within PG&E's existing transmission rights-of-way and would not be performed in regional or local roadways. Temporary lane closures would be required at various locations to ensure public safety during the replacement of poles and conductors. Guard structures or specially equipped bucket trucks would be employed where the Project alignment crosses over public roads (listed in Table 3.17-1), such as Highway 101, to allow traffic to safely use the road while PG&E removes the existing conductor and pulls the new conductor into place. However, if road and lane closures are necessary, they would be temporary and any effect on the operations of these roadways or the overall circulation system at any given location along the route would be minimal. Use of bikeways and operation of bus routes along roads that parallel or intersect the existing power line may be temporarily affected when truck traffic is accessing a structure location and when road or lane closures are necessary. Temporary closures of bikeways may occur along with road and lane closures. The ETS Red Route may also be subject to minor delays at two locations, Oak Street/Campton Road and at Redwood Street/Walnut Street, caused by temporary road closures during reconductoring or lane closures during pole replacements. However, road and lane closures that may affect these routes would be short-term and would only result in temporary delays of service. However, PG&E proposes to implement temporary traffic controls that are designed to prevent excessive congestion or traffic hazards (APM TT-1), which would minimize impacts to traffic flow (including bicyclists and public transit) in the affected areas.

The anticipated temporary and short-term construction-related traffic impacts would be related to truck routes and access routes in the Project area. The roadways that potentially would be affected

by construction-related traffic are listed in Table 3.17-1, and shown on the detailed alignment figures for the Project (see Figures 2-2 through 2-5 in Chapter 2, Project Description). On a typical work day, approximately 10 to 25 construction workers would be at the day's work sites, with up to 50 daily workers at any time, associated with the variety of work activities that may occur concurrently. Transport vehicles (e.g., crew-cab trucks and half-ton pickups) would be used to transport personnel to work sites (anticipated to carry two to four workers per vehicle). Construction materials would be delivered using line trucks and staged near existing structures. In addition, construction equipment would be brought to the work sites by trucks, but those truck trips would not be a daily occurrence, but rather would be delivered and staged in the Project work area, and then removed when it is no longer needed. The number of daily truck trips generated by Project construction would vary depending on the type and location of construction activities on each day. However, the maximum number of truck trips estimated to occur during the peak of Project construction is 50 (i.e., 100 one-way trips) per day, and an average of approximately 16 (32 one-way trips) per day.

As described in Section 3.17.2, Humboldt County and the City of Eureka strive to maintain streets and roadways operating at LOS "C" or higher, except for any portion of the Highway 101 where LOS "D" is acceptable. The above-described construction-generated traffic would be temporary and therefore would not result in long-term degradation in operating conditions on area roadways. Furthermore, construction locations and activities would shift locations over an approximately six-month period along the linear construction of the Project, thereby lessening the duration of disruption at any given location. Project-generated truck trips would be spread over the course of the work day, and construction workers would commute to and from the worksite primarily before or after peak traffic hours. Project-generated traffic (trucks and worker vehicles) would increase the daily traffic volume on Highway 101, SR 36, and SR 99 by as many as 200 one-way vehicle trips per day (100 truck trips, 100 worker trips), depending on the study location, which would not be substantial relative to existing traffic conditions, and Project traffic would not significantly disrupt daily traffic flow. While the increase in traffic volume on local roads would be noticeable, there is sufficient carrying capacity on those roads to accommodate the added traffic during the construction period (see Table 3.17-3). The primary impact from construction truck traffic would be a temporary and intermittent reduction of roadway capacities due to the slower movements of trucks compared to passenger vehicles. Drivers could experience delays if they were traveling behind a construction truck. However, the scale of construction-related traffic described above would not cause a deterioration in the LOS to an unacceptable level according to City or County standards. Therefore, construction of the Project would not conflict with any traffic plans, ordinances, or policies that establish measures of effectiveness for the performance of the circulation system, and the impact would be less than significant.

No changes to existing operation and maintenance activities are anticipated with Project implementation. That is, existing power lines are inspected yearly (ground inspection every other year), or as needed when driven by an event or incident, such as an emergency, and those inspections would not change from existing conditions with Project implementation. The Project would result in reduced potential for conductor failures, thereby fewer events or incidents that require emergency responses and inspections. Therefore, there would be no impact under Project operation and maintenance.

Mitigation: None required.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b): *LESS THAN SIGNIFICANT IMPACT.*

CEQA Guidelines Section 15064.3(b) states that generally vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts. VMT refers to the amount and distance of automobile travel attributable to a project. Increased VMT exceeding an applicable threshold could constitute a significant impact. If existing models or methods are not available to estimate the VMT for the particular project being considered, a lead agency may analyze the project's VMT qualitatively, evaluating factors such as the availability of transit or proximity to other destinations. For construction traffic, a qualitative analysis of VMT impacts (instead of a more detailed quantitative analysis) is often appropriate (CANRA, 2018; see also, CEQA Guidelines Section 15064.3(b)(3)).

According to technical guidance by the Governor's Office of Planning and Research, absent substantial evidence indicating that a project would generate a potentially significant level of VMT or inconsistency with a Sustainable Communities Strategy or general plan, projects that generate fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact (OPR, 2018).

Taking the information discussed above into account, the proposed Project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3(b) during construction. Construction-generated trips would be temporary and would result in fewer than 110 trips per day during the peak construction traffic period, when there would be as many as 50 daily construction worker trips and 50 daily truck trips. Furthermore, no changes to existing operation and maintenance activities are anticipated. For these reasons, VMT generated by the Project would be less than significant, and no mitigation is required.

Mitigation: None required.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment): *LESS THAN SIGNIFICANT IMPACT.*

Project construction would not alter any public roadways or intersections, including access roads to power lines, towers or poles, and substations, nor would it introduce incompatible uses to the Project area. Some existing access roads may be reestablished as part of the construction activities, as necessary; however, these roads have been previously used for maintenance activities for the existing power line. Heavy construction equipment would be used for pole work and reconductoring activities within roadways at Project work areas, requiring single-lane closures. Equipment may also be used for installation of temporary crossing guard structures where the alignment crosses roadways. However, use of such equipment would only occur within temporary work easements that would be isolated from adjacent traffic lanes. Any road closures that would occur on private, City, or County roads would be temporary, consistent with applicable regulations, and would be coordinated with the City, County, or property owner(s); APM TT-1 (implementation

of temporary traffic controls designed to prevent increased traffic hazards) would ensure that potential impacts would be less than significant.

Mitigation: None required.

d) Result in inadequate emergency access: *LESS THAN SIGNIFICANT IMPACT.*

Emergency access routes would be maintained throughout Project construction and operation. Construction vehicles and equipment are anticipated to access Project work areas for towers and poles by using existing paved, dirt, or gravel roads, and overland travel routes. Construction vehicles and equipment needed at the pull sites would be staged or parked within Project area easements, approved temporary construction easements, or alongside access roads. Any road or lane closures would be temporary and short term, and these closures would be coordinated with Caltrans and local jurisdictions (i.e., Humboldt County, City of Eureka) to reduce any potential temporary and short-term effects on emergency access. Although such closures can indirectly affect emergency access by causing congestion that could slow response times, access for emergency vehicles would be maintained even in the event of temporary road or lane closures. In addition, PG&E would implement APM TT-3, which would require that PG&E coordinate road and lane closures with emergency service providers, and APM TT-1, which would require that traffic controls and other traffic safety measures are in place to maintain proper traffic flow on both local and regional roadways during temporary construction activities. These measures would further minimize any vehicle delay caused by construction activity. Accordingly, impacts would be less than significant.

Mitigation: None required.

3.17.5 References

California Department of Transportation (Caltrans), 2017. *2017 Traffic Volumes on the California State Highway System*. Available online at: <https://dot.ca.gov/programs/traffic-operations/census/traffic-volumes/2017>.

California National Resources Agency (CANRA), 2018. *2018 Amendments and Additions to the State CEQA Guidelines, Final Adopted Text*. Available online at: http://resources.ca.gov/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf

City of Eureka, 2018. *City of Eureka 2040 General Plan, Chapter 3.4 – Our Infrastructure*. Adopted October 15, 2019. Available online at: <https://www.ci.eureka.ca.gov/civicax/filebank/blobdload.aspx?BlobID=15394>.

Federal Aviation Administration (FAA), 2019a. *Aeronautical Information Services - National Flight Data Center (NFDC) 033 Samoa Field, Eureka, CA – United States*. Available online at: <https://nfdc.faa.gov/nfdcApps/services/ajv5/airportDisplay.jsp?airportId=033>

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3.18 Tribal Cultural Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
18. TRIBAL CULTURAL RESOURCES — Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.18.1 Environmental Setting

This section examines the potential impacts of the proposed Project on tribal cultural resources. Much of the background context and methods used for the analysis of potential impacts from the proposed Project on tribal cultural resources and cultural resources is the same. Therefore, to avoid redundancy, this information, which is presented in Section 3.5, Cultural Resources, is not repeated here. For the purposes of this analysis, the term *tribal cultural resource* is defined as follows:

Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are listed, or determined to be eligible for listing, in the National Register of Historic Places (National Register), California Register of Historical Resources (California Register), or a local register of historical resources.

The term *indigenous*, rather than *prehistoric*, is used in this section as a synonym for “Native American–related” (except when quoting or from excerpts), while *pre-contact* is used as a chronological adjective to refer to the period before Euroamerican arrival in the subject area. “Indigenous” and “pre-contact” are often, but not always, synonymous: The former term refers to a cultural affiliation and the latter is chronological.

This section relies on the information and findings presented in the following technical report:

- Cultural Resources Inventory, Survey, and Evaluation Report for the Humboldt Bay-Humboldt #1 60 kV Reconductoring Project Humboldt County, California (Quercus Consultants, Inc., 2019).

The above technical report presents additional details on background context, Native American correspondence, and cultural resources identified for the proposed Project. The CPUC and its environmental consultant independently reviewed the technical report and found it to be suitable for reliance in combination with independent professional expertise to inform this analysis of potential environmental impacts of the Project. The report included an overview of the environmental, ethnographic, and historic background of the proposed Project area, with an emphasis on aspects related to human occupation. More detailed information regarding the results of the study can be found in the report (**Appendix E**).

Existing Cultural Environment

Records Search

In March 2012 and in September 2017, cultural resources records searches for the C-APE and vicinity were conducted at the North Coast Information Center (NCIC) and Northwest Information Center (NWIC), respectively. The study area for the records searches consisted of the proposed Project area with a 0.25-mile buffer. The purpose of the records searches was to:

1) determine whether known cultural resources have previously been recorded in or adjacent to the proposed Project area; 2) assess the likelihood for unrecorded cultural resources to be present based on historical references and the distribution of nearby resources; and 3) develop a context for the identification and preliminary evaluation of cultural resources. The records searches consisted of an examination of the following documents:

- NCIC and NWIC base maps: *Arcata South, CA*; *Eureka, CA*; *Fields Landing, CA*
- Resource Inventories: National Register of Historic Places-Listed Properties and Determined Eligible Properties (2012), California Register of Historical Resources (2012), California Points of Historical Interest (2012), California Inventory of Historical Resources (1976), California Historical Landmarks (2012), Historic Properties Directory (Humboldt County, 2012), Archaeological Determinations of Eligibility (Humboldt County, 2012), *Caltrans Historic Bridge Inventory* (Humboldt County, 2018).

The California Historical Resources Information System (CHRIS) has records of 20 previous cultural resources studies that included portions of the proposed Project area. CHRIS has no record of any previously recorded pre-contact cultural resources in the proposed Project area.

Buried Site Sensitivity Analysis

The following text is excerpted from Quercus Consultants, Inc. (2019).

Landforms that pre-date the Holocene have little or no potential to contain buried sites because there were few, if any, people yet present in the region. Previous studies have shown that known prehistoric sites tend to be located within 200 meters (656 feet) or less of a known stream or other water source. Conversely, most Holocene-age depositional landforms (e.g., alluvial fans and floodplains) have a general “geologic potential” to contain buried sites, as they were formed after the arrival and occupation of the region by prehistoric people. Thus, Holocene-age terrestrial deposits located within 200 meters of a historic-era bay or stream are considered to have an elevated (i.e., high) potential to contain buried sites (Meyer et al., 2011).

Based on review of geologic maps (McLaughlin et al., n.d.) coupled with refined and established archaeological sensitivity models (Meyer et al., 2011), the [C-APE] is situated generally on a landform identified as Latest Pleistocene to Holocene stream terrace deposits and a small pocket of Quaternary alluvium along the Elk River and Martin Slough. Latest Pleistocene to Holocene stream terrace deposits are considered to contain a low to moderate sensitivity for containing cultural deposits if the locations meet the criteria of being within 200 meters of a historical water source. That sensitivity is reduced to low if a location is farther than 200 meters from a historical water source. Latest Pleistocene to Holocene stream terrace deposits are generally not considered highly sensitive given the dearth of archaeological sites that have been identified from this time period. Additionally, while Quaternary alluvium adjacent to historical sources of water is considered highly sensitive for the presence of buried archaeological deposits, the limited excavation footprint associated with the [P]roject and the fact that only a handful of pole replacement locations are situated on a Quaternary landform identified as being within 200 meters of a historical source of water minimizes the potential for encountering a buried deposit to moderate or low.

Native American Correspondence

In May 2012, December 2017, and April 2019, the Native American Heritage Commission (NAHC) provided the results of requests for Sacred Lands File (SLF) searches and contact lists of Native American representatives potentially interested in the proposed Project. The 2012 and 2019 SLF search results were negative for cultural resources in the proposed Project area, though the 2017 results stated that the SLF has record of cultural resources in the proposed Project area and that the Wiyot Tribe should be contacted for information on the sites.

On May 16, 2012, and in January 2018, PG&E sent informational letters and/or emails to each of the Native American representatives whose contact information was provided in the 2012 and 2017 NAHC correspondence. These letters provided information on the proposed Project and solicited input from the recipients. Tribal groups were contacted by phone or regular mail in cases where an email address was not included in the NAHC correspondence. When no response was received, within a few weeks PG&E made follow-up phone calls.

Mr. Ted Hernandez, a representative of the Wiyot Tribe, was coordinated with extensively to address the cultural site identified by the NAHC in the proposed Project area (AS-1). At the tribe's request, a representative of the Wiyot Tribe was present on December 8, 2017, when Browning Cultural Resources, Inc. performed an archaeological subsurface survey of AS-1 (Browning Cultural Resources, Inc., 2017). The subsurface survey established that AS-1 is a non-cultural shell deposit. At the conclusion of the coordination, Mr. Hernandez determined that the Wiyot Tribe did not have any concerns regarding the proposed Project. Ms. Janet Eidsness, a representative of the Blue Lake Rancheria deferred to Ms. Erika Collins, Bear River Band of Rohnerville Rancheria Tribal Historic Preservation Officer, and Mr. Hernandez regarding the proposed Project and any potential concerns. No other tribal representative expressed concerns regarding the proposed Project.

On May 2, 2019, the CPUC sent letters, via certified mail, to those Native American representatives whose contact information was provided in the April 2019 NAHC correspondence regarding the proposed Project. The letters provided information on the proposed Project and solicited input from the recipients. The only replies to these letters was from Ms. Eidsness, who

requested information on the proposed Project and any Native American outreach that had been conducted for it. Additional correspondence regarding the proposed Project occurred between the CPUC and Ms. Eidsness, who stated that the Blue Lake Rancheria does not have any concerns regarding the proposed Project. Additionally, correspondence occurred between the CPUC and Mr. Hernandez, who stated that the Wiyot Tribe does not have any concerns regarding the proposed Project. Finally, correspondence occurred between the CPUC and Mr. Garth Sundberg, Chairperson of the Cher-Ae Heights Indian Community of the Trinidad Rancheria, who stated that the proposed Project is outside of the tribe's area of concern and that the tribe does not have any concerns regarding the proposed Project.

Appendix E provides documentation of the proposed Project correspondence with Native American representatives to date.

Field Survey

A cultural resources pedestrian survey was conducted for the proposed Project area from May 21 to June 1, 2012, on July 2, 2012, from November 7 to 9, 2017, from September 24 to 26, 2018, and on October 11, 2018. Intensive pedestrian survey methods were used, consisting of walking parallel transects spaced at no more than 15 meters apart and inspecting the surface for cultural material or evidence thereof.

During the pedestrian survey, nine cultural resources were identified in the proposed Project area; none of these resources has an indigenous component. Also, during the 2012 pedestrian survey, a shell deposit designated AS-1 was identified in the proposed Project area. As indicated earlier, on December 8, 2017, a subsurface survey was conducted at AS-1. Subsurface survey methods consisted of conducted surface scrapes, measuring 1 by 1 foot, and excavating a series of auger units, measuring 4 inches in diameter and excavated in 20-centimeter levels to up to 200 centimeters below surface. Sediment excavated in the auger units was screened through quarter-inch wire mesh screen. A Wiyot Tribe representative was present during the subsurface survey fieldwork. The subsurface survey determined that AS-1 is a non-cultural shell deposit and, therefore, is not an archaeological resource.

Summary

Through archival research, records searches, correspondence with Native American representatives, a pedestrian survey, and a subsurface survey, no tribal cultural resources or potential tribal cultural resources were identified in the proposed Project area, nor were any such resources that would be potentially impacted by the proposed Project identified.

3.18.2 Regulatory Setting

State

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the State and is codified at Public Resources Code Section 21000 *et seq.* CEQA requires lead agencies to

determine if a proposed project would have a significant effect on the environment, including significant effects on tribal cultural resources. Under CEQA (Pub. Res. Code §21084.1), a project that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.

Tribal Cultural Resources

Assembly Bill (AB) 52, enacted in September 2014, recognizes that California Native American Tribes have expertise with regards to their tribal history and practices. The bill established a new category of cultural resources known as tribal cultural resources to consider tribal cultural values when determining impacts on cultural resources (Pub. Res. Code §§21080.3.1, 21084.2, 21084.3). Public Resources Code Section 21074(a) defines a tribal cultural resource as any of the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either of the following:
 - included or determined to be eligible for inclusion in the California Register; or
 - included in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k).
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). In applying these criteria, the lead agency would consider the significance of the resource to a California Native American Tribe.

A cultural landscape that meets the criteria of Public Resources Code Section 21074(a) is also a tribal cultural resource if the landscape is geographically defined in terms of the size and scope. Also, an historical resource as described in Public Resources Code Section 21084.1, a unique archaeological resource as defined in Public Resources Code Section 21083.2, or a non-unique archaeological resource as defined in Public Resources Code Section 21083.2, may also be a tribal cultural resource if it meets the criteria of Public Resources Code Section 21074(a).

AB 52 requires lead agencies to analyze project impacts on tribal cultural resources, separately from archaeological resources (Pub. Res. Code §§21074, 21083.09), in recognition that archaeological resources have cultural values beyond their ability to yield data important to prehistory or history. AB 52 also defines tribal cultural resources in Public Resources Code Section 21074 (see above), and requires lead agencies to engage in additional consultation procedures with respect to California Native American Tribes (Pub. Res. Code §§21080.3.1, 21080.3.2, 21082.3).

Unique Archaeological Resources

As defined in Public Resources Code Section 21083.2, a “unique archaeological resource” is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- has a special and particular quality such as being the oldest of its type or the best available example of its type; or,
- is directly associated with a scientifically recognized important prehistoric or historic event or person.

The CEQA Guidelines note that if an archaeological resource is not a unique archaeological resource or historical resource, the effects of the project on those cultural resources shall not be considered a significant effect on the environment (CEQA Guidelines §15064.5[c][4]).

California Register of Historical Resources

The California Register is “an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change” (Pub. Res. Code §5024.1[a]). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register of Historic Places (National Register).

To be eligible for the California Register, a cultural resource must be significant at the local, State, and/or federal level under one or more of the following four criteria (Pub. Res. Code §5024.1[c]):

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

A resource eligible for the California Register must be of sufficient age, and retain enough of its historic character or appearance (integrity) to convey the reason for its significance. Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed in the National Register and those formally Determined Eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward; and
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5 (those properties identified as eligible for listing in the National Register, the California Register, and/or a local jurisdiction register);
- Individual historic resources;
- Historic resources contributing to historic districts; and
- Historic resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

California Public Resources Code Sections 5097

Public Resources Code Section 5097.99, as amended, states that no person shall obtain or possess any Native American artifacts or human remains that are taken from a Native American grave or cairn. Any person who knowingly or willfully obtains or possesses any Native American artifacts or human remains is guilty of a felony, which is punishable by imprisonment. Any person who removes, without authority of law, any such items with an intent to sell or dissect or with malice or wantonness is also guilty of a felony which is punishable by imprisonment.

California Native American Historic Resource Protection Act

The California Native American Historic Resources Protection Act of 2002 imposes civil penalties, including imprisonment and fines up to \$50,000 per violation, for persons who unlawfully and maliciously excavates upon, removes, destroys, injures, or defaces a Native American historic, cultural, or sacred site that is listed or may be listed in the California Register.

California Health and Safety Code Section 7050.5

Section 7050.5 of the California Health and Safety Code protects human remains by prohibiting the disinterring, disturbing, or removing of human remains from any location other than a dedicated cemetery. Public Resources Code Section 5097.98 (and reiterated in CEQA Guidelines Section 15064.59[e]) also identifies steps to follow in the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery.

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction.” There are no local regulations applicable to the Project related to tribal cultural resources.

3.18.3 Applicant Proposed Measures

The following measures pertaining to tribal cultural resources have been proposed by PG&E and would be implemented as part of the proposed Project.

APM CUL-1: Workers Environmental Awareness Training. PG&E will provide environmental awareness training on archaeological resources protection. This training may be administered by the principal cultural resource specialist (CRS) as a stand-alone training or included as part of the overall environmental awareness training as required by the project and will at minimum include: types of cultural resources or fossils that could occur at the project site; types of soils or lithologies in which the cultural resources could be preserved; procedures that should be followed in the event of a cultural resource or human remain discovery; and penalties for disturbing cultural resources.

APM CUL-3: Manage Unanticipated Cultural Resources Discoveries.

a) Cultural Resources

If cultural resources 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 PG&E CRS/archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with PG&E and other appropriate agencies. Work may continue on other portions of the site with the CRS/archaeologist's approval. PG&E will implement the CRS/archaeologist's recommendations for treatment of discovered cultural resources.

b) Human Remains

In keeping with the provisions provided in 7050.5 CHSC and Public Resource Code 5097.98, in the unlikely event that human remains or suspected human remains are encountered during any project-related activity, PG&E will:

- Stop all work within 100 feet;
- Immediately contact the CRS, who will then notify the county coroner and the CPUC;
- Secure the location, but do not touch or remove remains and associated artifacts;
- Do not remove associated spoils or pick through them;
- Record the location and keep notes of all calls and events; and
- Treat the find as confidential and do not publicly disclose the location.

If the coroner determines that the remains are Native American, California Health and Safety Code 7050.5 and PRC Section 5097.98 require that the PG&E CRS contact the NAHC within 24 hours. The NAHC, as required by PRC Section 5097.98, will determine and notify the Most Likely Descendant.

APM CUL-4: Undiscovered Potential Tribal Cultural Resources. The following procedure shall be employed (after stopping work and following the procedure for determining eligibility in APM CUL-3) if a resource is encountered and determined by the project's qualified archaeologist to be potentially eligible for the California Register

or a local register of historic resources and is associated with a California Native American Tribe(s) with a traditional and cultural affiliation with the geographic area of the proposed project:

1. The CRS shall notify the CPUC for appropriate action. PG&E will assist the CPUC if needed to identify the lead contact person for the California Native American Tribe(s) potentially associated with the cultural resource and with a traditional and cultural affiliation with the geographic area of the proposed project. The CPUC will contact the lead contact person to set up a meeting with PG&E and the CPUC.
2. The CRS shall participate with the CPUC in discussions with the California Native American Tribe(s) to determine whether the resource is a “tribal cultural resource” as defined by PRC Section 21074 and the tribe(s)’ preferred method of mitigation, if the resource is determined to be a tribal cultural resource.

If no agreement can be reached for mitigation after discussions with the California Native American Tribe(s) or it is determined that the tribe(s)’ preferred mitigation is not feasible, PG&E will implement one of the example mitigation measures listed in PRC Code Section 21084.3(b), or other feasible mitigation.

3.18.4 Environmental Impacts

Approach to Analysis

CEQA requires that a project’s impacts on tribal cultural resources be considered as part of the overall analysis of project impacts (Pub. Res. Code §§21080.3.1, 21084.2, 21084.3). The significance of a tribal cultural resource is assessed by evaluating: (1) its eligibility for listing on the California Register; (2) its eligibility as a unique archaeological resource pursuant to Public Resources Code Section 21083.2; and, (3) its listing status on the NAHC’s SLF. In addition, a lead agency can independently determine a resource to be a tribal cultural resource.

Because California Native American Tribes are considered experts with respect to tribal cultural resources, the analysis of whether project impacts may result in a substantial adverse change to the significance of a tribal cultural resource is heavily dependent on consultation efforts conducted between the lead agency and culturally affiliated California Native American Tribes during the CEQA process.

Discussion

- a) **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:**

- a.i) **Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k): *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.***

No tribal cultural resources, as defined in Public Resources Code Section 21074, have been identified in the proposed Project area through archival research, field survey, subsurface survey, and Native American consultation. Therefore, the proposed Project is not anticipated to impact any tribal cultural resources listed or eligible for listing in the California Register or a local register of historical resources.

However, the proposed Project would involve ground-disturbing activities that may extend into undisturbed soil. It is possible that such activities could unearth, expose, or disturb subsurface archaeological resources that have not been identified on the surface. Because previously unrecorded archaeological deposits could be present in the proposed Project area, and they could be found to qualify as tribal cultural resources, pursuant to Public Resources Code Section 21074, impacts of the proposed Project to tribal cultural resources could be potentially significant. APM CUL-1 would help reduce any potential impacts to undocumented archaeological resources that could qualify as tribal cultural resource by requiring a Workers Environmental Awareness Training for Project personnel. Though APM CUL-3 and APM CUL-4 would also help reduce any potential impacts to undocumented archaeological resources that could qualify as tribal cultural resources by requiring adherence to a protocol in the event of the discovery of any such resources during Project implementation, these APMs do not include sufficient detail regarding development of treatment measures or reporting. Therefore, more detailed mitigation as described in **Mitigation Measure CUL-1** is required to reduce any such impact to a less-than-significant level.

Mitigation: Implement Mitigation Measure CUL-1.

Significance after Mitigation: Less than significant.

- a.ii) **A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe: *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION.***

No tribal cultural resources, as defined in Public Resources Code Section 21074, have been identified in the proposed Project area through archival research, field survey, subsurface survey,

and Native American consultation. Therefore, the proposed Project is not anticipated to impact any tribal cultural resources determined by the CPUC to be significant pursuant to Public Resources Code Section 5024.1.

However, for the same reasons stated in the previous impact discussion, previously unrecorded archaeological deposits could be present in the proposed Project area, and if they were found to qualify as tribal cultural resources, pursuant to Public Resources Code Section 21074, impacts of the proposed Project to tribal cultural resources could be potentially significant. APM CUL-1 would help reduce any potential impacts to undocumented archaeological resources that could qualify as tribal cultural resource by requiring a Workers Environmental Awareness Training for Project personnel. Though APM CUL-3 and APM CUL-4 would also help reduce any potential impacts to undocumented archaeological resources that could qualify as tribal cultural resources, these APMs do not include sufficient detail regarding development of treatment measures or reporting. Therefore, more detailed mitigation as described in **Mitigation Measure CUL-1** is required to reduce any such impact to a less-than-significant level.

Mitigation: Implement Mitigation Measure CUL-1.

Significance after Mitigation: Less than significant.

3.18.5 References

Quercus Consultants, Inc., *Cultural Resources Inventory, Survey, and Evaluation Report for the Humboldt Bay-Humboldt #1 60 kV Reconductoring Project Humboldt County, California*, prepared for Pacific Gas & Electric, Co., Sacramento, CA, February 2019.

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3.19 Utilities and Service Systems

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
19. UTILITIES AND SERVICE SYSTEMS —				
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have sufficient water supplies available to serve the project and responsibly foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

This section describes the existing environmental and regulatory setting of the proposed Project and addresses the potential impacts on water, wastewater, storm drainage, electric power, natural gas, telecommunications, and solid waste systems that would result from construction, operation, and maintenance of the Project. For the purposes of this analysis, the study area includes the Project site and vicinity, including the footprint of all areas of Project-related temporary and/or permanent ground disturbance.

3.19.1 Environmental Setting

Water Services

Humboldt County

Within unincorporated areas near Eureka such as Myrtletown, Pine Hill, Humboldt Hill, Fields Landing, King Salmon, Cutten, and Mitchell Heights, water service is provided by Humboldt Community Service District (HCSD) (HCSD, 2014). HCSD operates and maintains a local water delivery system and district wells. The HCSD has two water sources: water from the Mad River, which is purchased from Humboldt Bay Municipal Water District (HBMWD) directly; and groundwater, which is pumped from the district-owned wells. The HCSD distributed water through approximately 87 miles of water mains to 7,526 service connections. HCSD has a total of 5 million gallons of storage capacity, a peak daily water consumption of approximately

3.20 million gallons, and an average daily water consumption of approximately 2.58 million gallons. In 2014, peak daily water demand was at approximately 71 percent of existing capacity (HCSD, 2014). According to the 2015 HCSD Urban Water Management Plan (UWMP), the target gallons per capita per day (gcpd) for the HCSD in 2020 is 113 gcpd, as of May 20, 2016, the HCSD was on target to meet its 2020 gcpd goal.

City of Eureka

The City of Eureka obtains water from the Humboldt Bay Municipal Water District (HBMWD), which delivers water to the City through the City's Mad River Pipeline. The pipeline has a capacity of 8.0 million gallons per day (mgd). Water supplied by the HBMWD is treated at the City's water treatment complex in Eureka (City of Eureka, 2018). The City of Eureka has an average daily demand of 4.0 mgd and a peak-month daily demand of 5.23 mgd (City of Eureka, 2014). According to the 2015 City's UWMP, the target gcpd for the City in 2020 is 108 gcpd. The City of Eureka has vested water rights to 1,883 million gallons per year from the Mad River. Projected demand for the City of Eureka in 2035 is 1,596 million gallons, which is within the City's vested water rights. Additionally, the City of Eureka UWMP found that the HBMWD has sufficient storage capacity to meet water demand in single and multiple dry-years (City of Eureka, 2016).

Wastewater Services

Humboldt County

Within the Humboldt County there are currently 17 cities and special districts that provide wastewater services, the remainder of the County is served by on-site septic systems. Most of the wastewater systems in the County were constructed in the 1950s and 1960s. The expansion of wastewater system services is identified as a critical need in order to meet regional housing needs and is a high priority identified in the County's General Plan.

In unincorporated areas near Eureka, HCSD provides wastewater collection and has a contract with the City of Eureka for treatment and disposal of wastewater (HCSD, 2014). In more rural areas of the County, properties use private septic systems which are permitted by the Department of Health and Human Services-Division of Environmental Health. The HCSD maintains approximately 29 wastewater pumping stations and 78 miles of sewer mains. HCSD has a peak daily wastewater flow of approximately 1.92 million gallons and an annual average daily wastewater flow of approximately 0.92 million gallons. Wastewater is collected from approximately 6,326 connections and is sent to the City of Eureka's Elk River Waste Water Treatment Plant for treatment (HCSD, 2014).

City of Eureka

The City of Eureka provides wastewater collection and treatment services to residents within its jurisdictional boundaries and to some customers outside of the City boundary. The City's wastewater collection system includes approximately 125 miles of sewer main, 9,500 service laterals, 18 lift stations, 4 major pump stations, and force mains. The system collects and conveys

between 1.6 and 1.8 billion gallons of wastewater each year. Wastewater is collected and treated at the City-owned Elk River Wastewater Treatment Plant and is treated to secondary treatment standards. The treatment plant is located on the east side of Humboldt Bay, near the mouth of Elk River (City of Eureka, 2018).

Between the City of Eureka, the County, and the HCSD, the population served by the treatment plant is approximately 45,000. The treatment plant is designed to treat an average dry weather flow (adwf) of 6.0 mgd, peak dry weather flows of 9.5 mgd, and peak wet weather flows of 32.2 mgd. The treatment plant is permitted to treat an adwf of 5.24 mgd, a peak dry weather flow of 8.6 mgd, and a peak wet weather flow 32.2 mgd. From 1999 to 2008 the average adwf to the treatment plant was 4.45 mgd, or 85 percent of its design capacity. Under an existing agreement between the City of Eureka and HCSD, the City is entitled to 69.5 percent of the treatment plant average dry weather flow capacity and HCSD is entitled to the remaining capacity. In 2014, based on the treatment plant's capacity and projected growth, it was estimated to have remaining capacity to serve approximately 4,862 dwelling units in the City of Eureka and HCSD (City of Eureka, 2014).

As indicated in the 2014 Municipal Services Review, the treatment plant was expected to have sufficient capacity to accommodate planned growth within the planning period of 2014-2019. However, the review indicated that beyond this planning period, areas within the treatment plant service area would have a full buildout with the potential to exceed capacity. The design of the treatment plant is such that its capacity could be increased in the future to accommodate planned growth within the City, its sphere of influence, and growth within the HCSD. Wastewater treated in the plant is dechlorinated and discharged into Humboldt Bay. The City's wastewater collection system is facing deficiencies due to the age of its infrastructure as well as capacity limitations. The Martin Slough Interceptor Project is intended to reduce demands on the existing pumping systems and will eliminate the need for several small lift stations in the southern portion of the service area. As of 2014, the City was meeting its National Pollutant Discharge Elimination System (NPDES) requirements and was not in violation of the Clean Water Act (City of Eureka, 2014).

Stormwater Services

Humboldt County

The Humboldt County Public Works Department is responsible for storm drainage within the unincorporated areas of the County. As described in the General Plan, the majority of the County does not have improved stormwater conveyance systems. Some unincorporated areas surrounding Eureka, such as Cutten and Humboldt Hill, have County-maintained stormwater infrastructure. In other areas, stormwater flows to the nearest water course or is controlled through on-site private storm drains (Humboldt County 2017). Much of the stormwater infrastructure in the County is aging and reaching the end of its design life. However, the County does not have sufficient funding to make improvements or develop a master planning and replacement program (Humboldt County, 2017). The City of Eureka, Humboldt County, and HCSD collaborated to create the Eureka Area Watershed Stormwater Resources Plan. This plan is a regional stormwater

planning document that evaluates existing water quality compliance in the region, prioritizes projects to address stormwater in the region., and outlines a plan to implement priority stormwater management projects.

City of Eureka

The City of Eureka's stormwater system is not linked with its sanitary sewer system. Therefore, stormwater enters receiving waters untreated. The City's stormwater drainage system includes gutter flow, cross street culverts, valley gutters, storm drain inlets and piping, and open channels. There are also a number of gulches within the City that serve as natural drainages. The gravity flow stormwater is discharged into Humboldt Bay and surrounding sloughs. The Stormwater Division of the City Public Works Department and the City Planning and Building Department manages efforts to reduce pollutant discharge into the city drain system through the NPDES permit program (City of Eureka, 2014). The Stormwater Division has developed the Stormwater Management Program. The City of Eureka developed and submitted a Stormwater Resources Plan that will provide a watershed-based approach to storm water management through capture projects and stormwater treatment facilities (Stormwater Division, 2019).

Solid Waste and Recycling Services

Solid waste collection service in the City of Eureka and nearby unincorporated areas of the County is provided by Recology Humboldt County. Solid waste processing and disposal are provided by Humboldt Waste Management Authority (HWMA) a Joint Powers Authority that was formed in 1999 to provide coordinated and integrated waste management and includes the following jurisdictions: Humboldt County, Arcata, Blue Lake, Eureka, Ferndale, and Rio Dell. The HWMA owns and operates the Hawthorne Street Transfer Station in Eureka and contracts for the disposal of member agencies' solid waste. In the 2013 Strategic Plan, HWMA established a regional diversion target of 75 percent. As of the 2018 update to the strategic plan, HWMA and member agencies have a collective tonnage diversion rate of 69.24 percent (HWMA, 2018).

In June 2017, HWMA entered into a contract with Bettendorf Trucking Enterprises for waste to be disposed of at Dry Creek Landfill in Eagle Point, Oregon. The term of agreement is 10 years, ending in 2027 (HWMA, 2018). Dry Creek Landfill is approximately 200 miles from the Project alignment. Dry Creek Landfill has a total landfill capacity of 76.7 million tons and as of 2017, a waste in place of 6.9 million tons resulting in a remaining capacity of 69.8 million tons. The estimated landfill closure date is 2112 (EPA, 2019). There are no landfills in Humboldt County that accept treated wood. PG&E indicates that it would likely dispose of treated wood poles at the Kettleman Hills Landfill in Kings County, California. According to the most recent available information, the landfill is permitted to accept treated wood and, as of 2010, had 17,468,595 cubic yards of remaining capacity (CalRecycle, 2019; DTSC, 2013).

Electricity, Natural Gas, and Telecommunications

Existing conditions regarding electricity, natural gas, and telecommunications infrastructure in the Project area are discussed in Section 3.6, Energy.

3.19.2 Regulatory Setting

Federal

No federal regulations pertaining to utilities and service systems apply to the proposed Project.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act gives the authority of water quality regulation to the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (each a RWQCB). The North Coast RWQCB serves the study area. The North Coast RWQCB prepares and updates the Water Quality Control Plan for the North Coast Basin (Basin Plan). Additionally, the North Coast RWQCB issues NPDES permits and Waste Discharge Requirements in accordance with the Clean Water Act NPDES program. See also Section 3.9.2, Hydrology and Water Quality.

NPDES Construction General Permit

Construction activities disturbing one acre or more of land, which includes the proposed Project, are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (Construction General Permit). For all new projects, applicants must electronically file permit registration documents using the Stormwater Multiple Applications and Report Tracking Systems, and must include a Notice of Intent, risk assessment, site map, and stormwater pollution prevention plan (SWPPP) to be covered by the General Construction Permit prior to beginning construction. The risk assessment and SWPPP must be prepared by a State-Qualified SWPPP Developer (QSD). See Section 3.9, Hydrology and Water Quality, for more detailed discussion relative to water quality.

SWRCB Order WQ-2016-0068-DDW

This SWRCB-adopted order permits temporary and permanent uses of tertiary-treated recycled water for allowed construction activities including dust control, soil compaction, concrete mixing, housekeeping (e.g., street sweeping), and hydrostatic testing (SWRCB, 2016).

California Integrated Waste Management Act

The Integrated Waste Management Act of 1989 (Pub. Res. Code Section 40050 et seq.), as amended, required each local agency to divert 50 percent of all solid waste generated within the local agency by January 1, 2000. The Act requires local agencies to maximize the use of all feasible source reduction, recycling, and composting options before using transformation (incineration of solid waste to produce heat or electricity) or land disposal. The Act also resulted in the creation of the State agency now known as CalRecycle. Under the Act, local governments

develop and implement integrated waste management programs consisting of several types of plans and policies, including local construction and demolition ordinances. The Act also formulated a comprehensive statewide system of permitting, inspections, and maintenance for solid waste facilities, and authorized local jurisdictions to impose fees based on the types and amounts of waste generated.

Title 22 California Code of Regulations Division 4.5

Title 22 of the California Code of Regulations, Division 4.5, discusses an array of requirements with respect to the disposal and recycling of hazardous and universal wastes. Specific standards and requirements are included for the identification, collection, transport, disposal, and recycling of hazardous wastes. Additional standards are included for the collection, transport, disposal, and recycling of universal wastes, identified in Section 66273.9 of Title 22 of the California Code of Regulations. Requirements include recycling, recovery, returning spent items to the manufacturer, or disposal at an appropriately permitted facility. Division 4.5 of Title 22 also provides restrictions and standards relevant to waste destination facilities, and provides authorization requirements for various waste handlers.

Title 22 also regulates the treatment and use of recycled water. It lists 40 specific allowed uses of disinfected tertiary recycled water (such as irrigating parks), 24 specific allowed uses of disinfected secondary recycled water (such as irrigating animal feed and other unprocessed crops), and seven specific allowed uses of undisinfected secondary recycled water (such as industrial uses). Certain Project-related construction activities that could utilize recycled water include dust suppression, soil compaction, and street cleaning.

California Government Code

Section 4216 of the California Government Code protects underground structures during excavation. Under this law, excavators are required to contact a regional notification center at least two days prior to excavation of any subsurface installations. Underground Service Alert is the regional notification center in the Project area. Underground Service Alert notifies utility providers with buried lines within 1,000 feet of the excavation, and those providers are required to mark the specific location of their facilities prior to excavation. The code also requires excavators to probe and expose existing utilities before using power equipment.

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction.” The discussion below presents local policies and regulations for informational purposes only; the CPUC does not consider these regulations to be “applicable” as that term is used in CEQA.

Humboldt County General Plan

The following General Plan goals and policies are potentially relevant to public utilities and services. Chapter 10.5, Solid Waste, of the General Plan contains policies and standards related to the establishment of County waste reduction programs and the siting and permitting of solid waste facilities. However, the General Plan does not contain any solid waste policies or standards that are relevant to the proposed Project.

Goal LU-13: Adequate Infrastructure and Services. Well maintained public infrastructure and services supporting existing development.

Policy IS-P17: On-Site Sewage Disposal Requirements. Maintain regulations governing construction and maintenance of on-site sewage disposal systems to protect health and safety and to reflect changes in state law and advances in treatment technologies. Recognize and allow the use of alternative onsite sewage disposal systems that meet state standards.

Standard IS-S3: Infrastructure Project CEQA and NEPA Land Use Consistency Determinations. Policies of this Plan which avoid or mitigate environmental effects shall be considered by CEQA lead agencies and federal agencies conducting NEPA evaluations in the evaluation of the environmental impacts of proposed infrastructure projects. Policy conflicts should be considered potentially significant land use impacts pursuant to California Public Resources Code 21083 and Code of Federal Regulations Title 40, Part 6.

Standard IS-S6: Water and Wastewater Service Commitment for Proposed Development Projects. Discretionary development served by public water and/or wastewater service shall receive written service commitments from the appropriate district or agency prior to receiving final approval from the County.

BR-S7: Development within Streamside Management Areas. Development within Streamside Management Areas may be approved where consistent with Policy BR-P6, Development within Streamside Management Areas, and shall be limited to the following uses:

- A. Development permitted within stream channels per BR-S6, Development within Stream Channels.
- B. Timber management and harvest activities under a timber harvesting plan or non-industrial timber management plan, or activities exempt from local regulation as per California Public Resources Code 4516.5(d).
- C. Road, bridge, and trail replacement or construction, when it can be demonstrated that it would not degrade fish and wildlife resources or water quality, and that vegetative clearing is kept to a minimum.
- D. Removal of vegetation for disease control or public safety purposes.
- E. Normal, usual and historical agricultural practices and uses which are principally permitted within the SMA shall not be considered development for the purposes of this standard.

- F. Normal, usual and historical agricultural and surface mining practices and uses which are principally permitted within the SMA shall not be considered development for the purposes of this standard.

BR-S9: Erosion Control. Erosion control measures for development within Streamside Management Areas shall include the following:

- A. During construction, land clearing and vegetation removal will be minimized, following the provisions of the Water Resources Element and the standards listed here.
- B. Consistent with BR-S8, construction sites with at least 100 square feet of exposed soil will be planted or seeded as appropriate per mitigations as recommended in writing by the lead agency with native or non-invasive vegetation and mulched with natural or chemical stabilizers to aid in erosion control and ensure revegetation.
- C. Long slopes will be minimized to increase infiltration and reduce water velocities down cut slopes by such techniques as soil roughing, serrated cuts, selective grading, shaping, benching, and berm construction.
- D. Concentrated runoff will be controlled by the construction and continued maintenance of culverts, conduits, non-erodible channels, diversion dikes, interceptor ditches, slope drains, or appropriate mechanisms. Concentrated runoff will be carried to the nearest drainage course. Energy dissipaters may be installed to prevent erosion at the point of discharge, where discharge is to natural ground or channels.
- E. Runoff shall be controlled to prevent erosion by on-site or off- site methods. On-site methods include, but are not limited to, the use of infiltration basins, percolation pits, or trenches. On-site methods are not suitable where high groundwater or slope stability problems would inhibit or be aggravated by on-site retention or where retention will provide no benefits for groundwater recharge or erosion control. Off-site methods include detention or dispersal of runoff over non-erodible vegetated surfaces where it would not contribute to downstream erosion or flooding.
- F. Disposal of silt, organic, and earthen material from sediment basins and excess material from construction will be disposed of out of the Streamside Management Area to comply with California Department of Fish and Wildlife and the North Coast Regional Water Quality Control Board requirements.
- G. Winter operations (generally October 15 thru April 15) shall employ the following special considerations:
 - 1. Slopes will be temporarily stabilized by stage seeding and/or planting of fast germinating seeds, such as barley or rye grass, and mulched with protective coverings such as natural or chemical stabilizations, and
 - 2. Runoff from the site will be temporarily detained or filtered by berms, vegetated filter strips, and/or catch basins to prevent the escape of sediment from the site. Drainage controls are to be maintained as long as necessary to prevent erosion throughout construction.

Goal WR-G10: Storm Drainage. Storm drainage utilizing onsite infiltration and natural drainage channels and watercourses, while minimizing erosion, peak runoff, and interference with surface and groundwater flows and storm water pollution.

Goal WR-G11: Wastewater Management. Individual wastewater systems that do not contaminate surface and ground water.

Policy WR-P10: Erosion and Sediment Discharge. Ministerial and discretionary projects requiring a grading permit shall comply with performance standards adopted by ordinance and/or conditioned to minimize erosion and discharge of sediments into surface runoff, drainage systems, and water bodies consistent with best management practices, adopted Total Maximum Daily Loads (TMDLs), and non-point source regulatory standards.

Policy WR-P36: Natural Stormwater Drainage Courses. Natural drainage courses, including ephemeral streams, shall be retained and protected from development impacts which would alter the natural drainage courses, increase erosion or sedimentation, or have a significant adverse effect on flow rates or water quality. Natural vegetation within riparian and wetland protection zones shall be maintained to preserve natural drainage characteristics consistent with the Biological Resource policies. Stormwater discharges from outfalls, culverts, gutters, and other drainage control facilities that discharge into natural drainage courses shall be dissipated so that they make no significant contribution to additional erosion and, where feasible, are filtered and cleaned of pollutants.

Policy WR-P37. Downstream Stormwater Peak Flows. Peak downstream stormwater discharge shall not exceed the capacity limits of off-site drainage systems or cause downstream erosion, flooding, habitat destruction, or impacts to wetlands and riparian areas. New development shall demonstrate that post development peak flow discharges will mimic natural flows to watercourses and avoid impacts to Beneficial Uses of Water.

Policy WR-P38. New Drainage Facilities. Where it is necessary to develop additional drainage facilities, they shall be designed to be as natural in appearance and function as is feasible. All drainage facilities shall be designed to maintain maximum natural habitat of streams and their streamside management areas and buffers. Detention/retention facilities shall be managed in such a manner as to avoid reducing streamflows during critical low-flow periods.

Policy WR-P42. Erosion and Sediment Control Measures. Incorporate appropriate erosion and sediment control measures into development design and improvements.

Policy WR-P43. Storm Drainage Design Standards. Drainage design standards for new development shall be adopted by ordinance. The design standards shall ensure that storms of specified intensity, frequency, and duration can be accommodated by engineered drainage systems and natural drainage courses.

Standard WR-S7. Erosion and Sediment Discharge. Ministerial and discretionary projects shall conform to grading ordinance standards for erosion and sediment control.

Humboldt County Hazardous Waste Management Plan

The Humboldt County Hazardous Waste Management Plan outlines policies for the management of hazardous waste in the County. The following policy is relevant to the proposed Project:

Goal 6: As the fourth plan priority, to encourage on-site treatment

Policy A: New and existing businesses in Humboldt County shall be encouraged to reduce the use of hazardous materials when feasible, and to dispose of hazardous wastes in the way most favorable to the environment (Humboldt County, 1989).

Humboldt Waste Management Authority Strategic Plan

The 2013 Strategic Plan identifies the roles for the HWMA and member agencies and outlines a mission and vision for the HWMA as well as policies to implement the HWMA's strategy and vision. The following strategy is relevant to the proposed Project (HWMA, 2018).

Strategy 1.8 Set a regional diversion target of 75%.

City of Eureka General Plan

The following general plan goals and policies are potentially relevant to public utilities and services:

Goal E-5: Infrastructure to meet the needs of existing and future businesses and industries.

Policy E-5.1: Access, Infrastructure and Services. Ensure that convenient access to major transportation facilities, adequate utility and telecommunications infrastructure, high speed broadband, and sufficient public services are available and/or programmed to support commercial and industrial areas.

Policy E-5.7: Wastewater Treatment Capacity. Ensure that the City's Wastewater Treatment Plant has sufficient capacity to meet the needs of industrial and agricultural users. Wastewater capacity shall be sufficient to support the planned growth of breweries, dairy manufacturing, and other high impact users.

Goal U-1: Availability of an adequate, safe, and sustainable water supply and maintenance of an efficient water system for all residents and visitors.

Policy U-1.3: New Development. Require new development to demonstrate the availability of a long-term, reliable water supply (either an existing supply or provision of a new water source) and adequate infrastructure, in accordance with City standards, and to connect to the City's water system. New development in Natural Resource and Agricultural lands may not be required to connect to the City's water system if the requisite infrastructure is not reasonably available. Require new development to be responsible for constructing, dedicating, and/or paying its fair share contribution for any water system upgrades necessary to serve the development.

Goal U-2: Sustainable and adequate wastewater collection, treatment, and disposal for existing and future development.

Policy U-2.3: New Development. Require new development to demonstrate the availability of sufficient wastewater facilities, in accordance with City plans and standards, and to connect to the City's wastewater treatment system. New development in Natural Resource and Agricultural lands may not be required to connect to the City's wastewater system if the requisite infrastructure is not reasonably available. Require new development to be responsible for constructing, dedicating, and/or paying its fairshare contribution for any wastewater treatment and collection system upgrades necessary to serve the demands generated by the development.

Goal U-3: A comprehensive stormwater collection and conveyance system that reduces or prevents flooding, and protects public safety and the environment.

Policy U-3.8: New Development. Require new development to prepare drainage studies and to retain and infiltrate stormwater runoff in compliance with City and regional

regulations, plans and standards. Ensure that new development constructs, dedicates and/or pays its fair share contribution to the storm drainage system necessary to serve the demands created by the development.

Policy U-3.11: Stormwater Quality. Require new development and redevelopment to minimize stormwater runoff and pollutants entering drainage facilities and drainage courses by incorporating Low Impact Development (LID) measures and appropriate Best Management Practices (BMPs) consistent with the City's NPDES permit and the North Coast Regional Quality Control Board regulations.

Policy U-3.12: Minimize Drainage Through Design. Encourage new project designs that minimize impervious surfaces and maintain, to the extent feasible, natural site drainage conditions, while also employing techniques aimed at retaining and reusing runoff and other water used onsite.

Goal U-4: A comprehensive stormwater collection and conveyance system that reduces or prevents flooding, and protects public safety and the environment.

Policy U-4.3: Increase Waste Diversion. Promote maximum use of solid waste source reduction, recycling, composting, and environmentally-safe transformation of wastes, maximizing solid waste diversion opportunities.

Policy U-4.5: Solid Waste Management per State Mandated Diversion. Continue to partner with Humboldt Waste Management Authority and City-designated franchise hauler to further plan for and document compliance with State-mandated source reduction, diversion, and recycling requirements.

Policy U-4.8: Reduced Materials Consumption. Conserve natural resources through reduced materials consumption and regularly update the City's Zero Waste Action Plan.

Goal NR-1: Protection, enhancement and restoration of surface water resources, and their associated riparian habitats, and groundwater, as well as improvement of water quality.

Policy NR-1.5: Best Management Practices. Require the implementation of Best Management Practices (BMPs) to minimize erosion, sedimentation, and water quality degradation resulting from the construction of new impervious surfaces.

Policy NR-1.6: Water Quality. Regulate construction and operational activities to incorporate stormwater protection measures and Best Management Practices in accordance with the City's National Pollution Discharge Elimination System to minimize adverse effects of wastewater and stormwater discharges.

3.19.3 Applicant Proposed Measures

No Applicant Proposed Measures (APMs) have been identified that would address potential impacts on utilities or service systems.

3.19.4 Environmental Impacts

Discussion

- a) **Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects: *NO IMPACT.***

Water and Wastewater Treatment

The proposed Project would not require or result in the relocation or construction of new or expanded water or wastewater treatment facilities. The Project would require water use during construction for dust control on access roads and concrete mixing. This water would be supplied by a water truck and would be obtained from hydrants situated along the Project route. Construction of the proposed Project would require approximately 128,000 gallons over the 8-month construction period; there would be no change in operational water requirements. When compared to average daily water consumption in the HCSD service area (approximately 2.58 million gallons per day), the amount of water required over the 8-month construction period would not be significant. As a result, the Project would not require the construction of new or expanded water facilities. Therefore, no impact would occur.

The Project would generate minimal wastewater. As described in Section 2.7.1, Staging Areas, staging areas would include portable sanitation facilities to be used by the construction work force. These sanitary systems would not be connected to the local wastewater system. As described in Section 2.5.1, Construction Workforce and Equipment, the Project would employ a maximum of 50 employees working concurrently at separate locations. As a result, wastewater generated from portable worker facilities during construction would be limited and would be handled by a licensed sanitation contractor, which would dispose of the waste at an off-site location in compliance with Northcoast RWQCB standards.

As described in Section 2.7.7, Powerline Construction, dewatering may be necessary in some locations if the drilled pier technique is used to install lattice steel towers. The SWPPP would detail proposed dewatering procedures, ensuring that water is discharged in compliance with applicable regulations or is discharged to a portable tank and disposed of off-site according to state and federal regulations. It is anticipated that water from dewatering would be disposed of on land and not to wastewater infrastructure.

Additionally, the drilled pier technique of installing lattice steel towers would require the use of drilling fluids. As described in Section 2.7.7, drilling fluids would be disposed of using a mud recycler that would separate solids from the drilling fluid so that the drilling fluid can be re-used during the micropiling process. The solids would then be disposed of in compliance with state and federal regulations. Excess spoils from the drilling process would be hauled off-site for disposal or re-used elsewhere on the Project as fill. Therefore, the drilled pier installation technique would not result in the discharge of drilling fluids to surface waters and would not impact wastewater or stormwater treatment infrastructure.

Project operation and maintenance activities would be substantially similar to operation and maintenance of existing facilities. No changes or additions to existing staffing for operation and maintenance activities are proposed. No additional wastewater would be generated during operation and maintenance. Therefore, Project construction, operation, and maintenance would not require the construction of additional water or wastewater treatment infrastructure. The Project would have no impact with respect to these facilities. Thus, no impact would occur.

Storm Water Drainage

The Project would not substantially increase the amount of impervious surfaces within the study area. As a result, the Project would not generate a substantial amount of additional storm water runoff. Grading and the installation of culverts could result in small changes to the existing drainage patterns on-site. However, APM GEO-2 requires that grading be designed to limit the potential for slope instability and erosion. Therefore, grading would not substantially increase the existing velocity or volume of stormwater flows either on-site or off-site. Additionally, the implementation of the SWPPP, described in APM WQ-1, would include BMPs designed to control stormwater flows resulting from the Project. As described in Section 2.7.10, Erosion and Sediment Control and Pollution Prevention, the BMPs would be monitored and revised as needed, in order to respond to construction conditions. Additionally, as described in Section 2.9, Anticipated Permits and Approvals, the Project would be required to obtain a ministerial grading permit from the County of Humboldt. In accordance with this permit, the Project would be required to comply with performance standards identified in Policy WR-P10 of the Humboldt County General Plan. These performance standards have been designed to minimize erosion and the discharge of sediments into drainage systems and water bodies consistent with adopted Total Maximum Daily Loads. Therefore, the Project's compliance with grading permit requirements, grading design, and the implementation of a SWPPP and associated BMPs would ensure that the Project would have a less than significant impact on stormwater drainage infrastructure. The Project would not require the construction of a new stormwater drainage facility; therefore, there would be no impact with regard to stormwater drainage.

Electric Power, Natural Gas, and Telecommunications

As described in Section 3.6, Energy, the Project consists of reconductoring and replacing equipment along approximately 7.8 miles of a 60 kV overhead electric power line to address projected reliability issues. The Project in itself would not generate new electric energy demand or demand for natural gas, thus, would not require or result in the construction of additional energy facilities to meet its energy demand. Additionally, the Project would not result in the need for new telecommunications facilities. Therefore, no impact would occur.

Utility Relocation

Construction activities, such as ground excavations, have the potential to damage existing utilities, including water mains, storm drains, sewer lines, and natural gas lines. In accordance with California Government Code Section 4216, prior to any excavation or augering PG&E would notify other utility providers to locate and mark existing underground infrastructure and would probe and expose existing utilities before using power equipment. These preventative measures would ensure that Project construction would not interfere with existing, documented

power, natural gas, communications systems, or other utility infrastructure. Surveying existing utility infrastructure and coordination with utility companies in the final design stages of the Project would ensure that the Project would not damage or displace existing utility infrastructure. As a result, the Project would not require the relocation of construction of new underground or overhead utility. Operation and maintenance of the Project would not change from existing operation; therefore, no operation- or maintenance-related activity is expected to displace or damage existing infrastructure related to water or wastewater treatment facilities such as water wells, pipelines, or other facilities.

b) Have sufficient water supplies available to serve the project and responsibly foreseeable future development during normal, dry and multiple dry years: *NO IMPACT.*

As described in Section 2.7.11, Water Supply and Use, the Project would require up to 128,000 gallons of water for construction activities such as dust control and concrete preparation. There would be no change in the amount of water required for operation and maintenance of the Project. Water required during construction would be a temporary condition during the 8-month construction period. Water would be supplied by a water truck that would obtain water from hydrants along the Project route. As analyzed under criterion a), when compared to the average daily water consumption in the HCSD (2.58 million gallons per day) and City of Eureka (4.0 million gallons per day), the water used during over the course of the 8-month construction period would be between 3 and 5 percent of the amount of water that is consumed within the HCSD and City of Eureka each day. Therefore, the amount of water needed for Project construction would be negligible when compared to overall water consumption in the HCSD and City of Eureka. As described in Section 3.19.1, the 2015 Urban Water Management Plans for both the HCSD and City of Eureka found that each jurisdiction would have sufficient storage capacity to meet projected water demand in both single and multiple-dry years (HCSD, 2016; City of Eureka, 2016). Additionally, in 2015, the HCSD delivered approximately 501 million gallons of water to its customers (HCSD, 2016). In 2015, the City of Eureka delivered 1,034 million gallons of water to its customers (City of Eureka, 2016). Therefore, the Project's short-term demand for water would be equivalent to between 0.01 percent of the water delivered to City of Eureka in 2015 or 0.03 percent of the water delivered to HCSD in 2015. Operation and maintenance activities would be substantially similar to operation and maintenance of existing facilities, and would not result in an increased water demand. Therefore, Project construction and operation would have no effect on water supplies available to serve reasonably foreseeable future development, and no impact would occur.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments: *NO IMPACT.*

As described under criteria a) and b), the primary use of water during Project construction would be for dust control and concrete preparation, in which case water would not require treatment as wastewater. Additional runoff or discharges generated by other construction activities or increases in impervious surfaces would be managed and controlled by the SWPPP. Construction

would generate small volumes of sanitary wastewater, which would be disposed of by a licensed provider with capacity to meet the Project's needs.

Wastewater generation during operation and maintenance would be similar to existing conditions. No new wastewater-generating facilities would be constructed or operated as part of the Project. The Project would not cause a wastewater treatment provider to determine that it has inadequate capacity to serve the Project's projected demand in addition to its existing commitments; therefore, no impact would occur.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals: *LESS THAN SIGNIFICANT IMPACT.*

Construction activities would generate various waste materials including concrete, plastic, metals, utility poles, utility line cables, and general waste such as paper, soil, vegetation, treated wood, conductors, insulators, and other pole hardware. The Project is expected to generate approximately 640 cubic yards of construction waste during construction and would not increase the amount of solid waste generated during operation. As described in Section 2.7.12, Cleanup, and Post-Construction Restoration, after construction PG&E would collect debris from construction and transport it to a PG&E service center where any salvageable structures, poles, materials, or other components would be reused or recycled. Any material that cannot be reused or recycled would be collected and properly disposed of off-site in accordance with state and federal requirements. The Dry Creek Landfill, which is used by HWMA for solid waste disposal has a remaining capacity of 69.8 million tons. The Project would produce approximately 640 cubic yards of solid waste or approximately 141 tons of solid waste.¹ Wood poles removed during construction would be disposed of in a composite-lined portion of a municipal solid waste landfill approved by the Northcoast RWQCB. PG&E intends to use Kettleman Hills Landfill to dispose of treated wood poles. The landfill has sufficient permitted capacity to accommodate the needs of the Project. Therefore, the Project would not generate solid waste in excess of local infrastructure. A relatively small amount of hazardous or otherwise regulated waste would be generated during construction and demolition activities. Impacts related to hazardous wastes are discussed in Section 3.8, Hazards and Hazardous Materials.

Neither Humboldt County nor the City of Eureka has adopted a construction and demolition waste management ordinance. As described above, although there are not state or local waste management standards or policies that apply to the Project, PG&E would recycle all recyclable waste generated such as metal poles and conductor, wood and steel insulator packaging, etc. Therefore, the Project would not generate solid waste in excess of State or local standards and would not impair the attainment of solid waste reduction goals. Impacts would be less than significant.

¹ The weight of the solid waste generated by the project was estimated by using an average of the Volume to Weight Conversion factors provided by the EPA in 2016 (EPA, 2016). Three conversion factors were used for the types of waste that are expected to be generated by the project (treated wood- 169 pounds per cubic yard, dirt and sand -929 pounds per cubic yard, and other ferrous and non-ferrous metal- 225 pounds per cubic yard). These conversion factors were averaged and multiplied by the anticipated cubic yards of solid waste that would be generated by the Project.

Mitigation: None required.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste: *LESS THAN SIGNIFICANT IMPACT.*

The Project would have no effect on the provision of solid waste services within the Project vicinity. As described under criterion d), the Project would not have a significant impact on the attainment of solid waste reduction goals. Surplus soils would be minimal and would be used to refill holes left after the removal of poles. PG&E would recycle all recyclable materials such as removed steel poles and conductor, and wood and steel insulator packaging. The Dry Creek Landfill would have sufficient capacity for waste generated during construction. Project operation and maintenance would generate negligible waste and would not significantly differ from existing conditions. As described in Section 3.19.1, landfills near the Project alignment would have enough capacity to accept any generated hazardous and nonhazardous waste from the Project. The Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste and impacts would be less than significant.

Mitigation: None required.

3.19.5 References

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3.20 Wildfire

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
20. WILDFIRE — If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

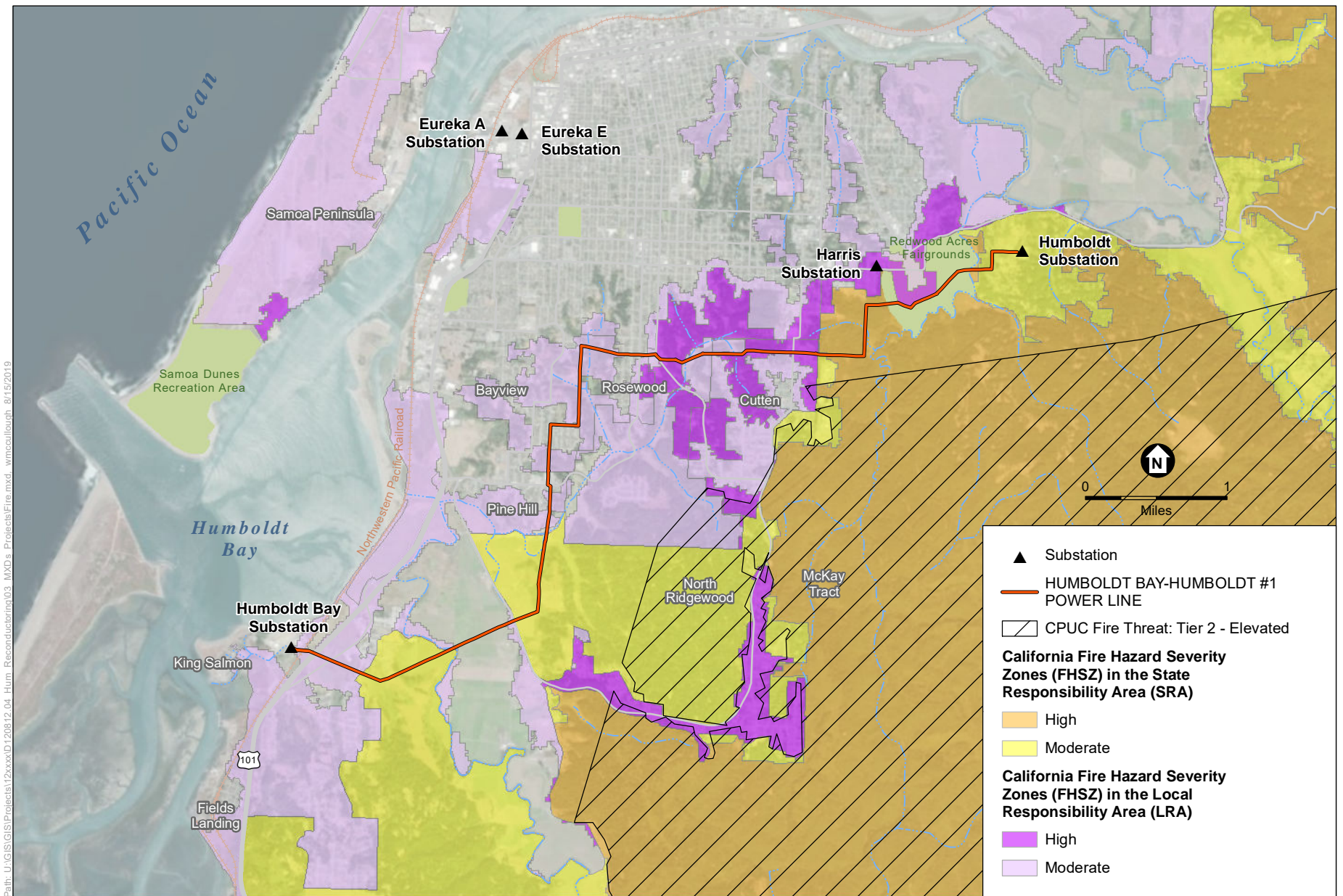
For the purposes of this analysis of wildfire risk, the study area is defined as the PG&E right-of-way (ROW), existing access roads, and areas where housing and structures are located downstream or downslope of the Project. This area was chosen as the study area because the PG&E ROW corresponds with the vegetation and wire clearance requirements identified in Section 3.20.2, Regulatory Setting.

3.20.1 Environmental Setting

Fire Protection Services and Planning Areas

The proposed Project traverses portions of the City of Eureka and unincorporated areas of Humboldt County, and is located in both a Local Responsibility Area (LRA) and a State Responsibility Area (SRA). LRAs include incorporated cities and densely populated areas. Fire protection within these areas is typically provided by city fire departments, fire protection districts, counties, and by the California Department of Forestry and Fire Protection (CAL FIRE) under contract to local governments. A SRA is the official boundary where the State of California (through CAL FIRE) has the primary legal and financial responsibility for the prevention and suppression of wildland fires. Approximately 3.6 miles of the Project alignment is located within a SRA and approximately 4.2 miles of the Project are located within an LRA (see **Figure 3.20-1**).

As discussed in Section 3.15, Public Services, fire protection services are provided by Humboldt Bay Fire within the City of Eureka and the surrounding Greater Eureka Area. CAL FIRE is the primary emergency responder in SRAs. The Project site is located in Battalion 3 within the Humboldt-Del Norte CAL FIRE Unit (CAL FIRE, 2018). The Humboldt County Community Wildfire Protection Plan (CWPP) (described in more detail in Section 3.20.2, below) was



SOURCE: CalFire, 2007

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 3.20-1
Designated Wildfire Hazard Zones

developed by the Humboldt County Fire Safe Council (HCFSC) to integrate planning and risk assessment within the County to prevent human-caused wildfire ignitions and increase wildfire resiliency and preparedness. The HCFSC was developed by the Humboldt County Board of Supervisors during the general plan update process in order to create the CWPP. The planning process that led to the CWPP was intended to create a collaborative document to be used by fire protection practitioners and community members. The CWPP serves as a planning tool for local fire departments, state and federal fire protection agencies, the public, and others to facilitate the identification of wildfire risks and prioritization of mitigation efforts. In order to implement a county-wide action plan, CWPP divided the County into distinct planning units. The proposed Project is located within the Humboldt Bay Area Planning Unit (HCFSC, 2019).

The CWPP Unit Action Plan for the Humboldt Bay Area identified several communities on the eastern edge of the City of Eureka that are located in the wildland-urban interface, such as Humboldt Hill and residences off of Myrtle Avenue between Mitchell and Pigeon Point roads (HCFSC, 2019). The Project alignment passes through both of these identified communities.

CAL FIRE Hazard Severity Zones

CAL FIRE has adopted Fire Hazard Severity Zone (FHSZ) mapping for SRAs throughout the state. These maps rate wildfire hazards as “moderate,” “high,” or “very high” based on fuel loading, slope, fire weather, and other relevant factors. As shown on Figure 3.20-1, of the portion of the Project that is within an SRA, approximately 1.5 miles are identified as high FHSZ and 2 miles are identified as moderate FHSZ.

In addition to FHSZ mapping within SRAs, CAL FIRE published Draft FHSZ maps in LRAs in 2007; however, because CAL FIRE does not have local land use authority, these maps are informational in nature. State law requires that if CAL FIRE identifies Very High FHSZs in LRAs, it must publish recommended Very High FHSZ maps, and the local agency must designate these zones. For Humboldt County, no Very High FHSZs were identified; therefore, CAL FIRE has only published the Draft map for Humboldt County. Portions of the Project that are within an LRA have moderate and high FHSZ ratings.

CPUC-Designated Wildfire Hazard Zones

In response to the CPUC’s Fire Safety Rulemaking, the CPUC mapped high fire threat areas where more stringent inspection, maintenance, vegetation clearance, and wire clearance requirements (as required by CPUC General Orders 95, 165, and 166, described in Section 3.20.2, below) would be implemented due to the elevated risk for power line fires. The CPUC High Fire Threat District Map identifies three tiers of elevated risk for fires associated with utilities. As shown in Figure 3.20-1, the Project is not located in a CPUC designated Fire Threat District; however, some Project components are approximately 800 feet from a CPUC Tier 2 Fire Threat District. Tier 2 areas are defined as areas “where there is an elevated risk (including likelihood and potential impacts on people and property) from wildfires associated with overhead utility power lines” (CPUC, 2017a).

Fire Environment

Climate

The climate of Humboldt County is relatively mild and receives considerable precipitation. The Pacific Ocean creates cool, stable temperatures along the coast that do not vary significantly from summer to winter. Temperatures are typically 10 degrees warmer in the summer months and precipitation is considered to be negligible during the summer. Due to mild temperatures, the influence of coastal fog, and precipitation, average relative humidity is generally high. Humboldt County's fire season is generally considered to be June to October. Due to climatic differences between the eastern and western parts of the County, the western or coastal areas of Humboldt County typically have shorter wildfire season than that of the eastern side of the County (HFSC, 2019). Certain weather patterns in Humboldt County that are atypical for the County, but are more common during the summer months, are particularly associated with elevated fire risk. These patterns can produce warm, dry, east winds (called "foehn winds") that displace the cool, marine air mass off the coast resulting in high temperatures and low humidity. On these days, large fires are much more likely to occur or to spread rapidly. These patterns generally occur 50 to 55 days in the summer months with the greatest number of days in July, August, and September (HCFSC, 2019; CAL FIRE, 2018). Normal wind patterns within the Project vicinity are west to southwest winds in the afternoon (CAL FIRE, 2018).

Topography and Vegetation/Fuels

The Project is proposed near the coast, and the study area covers a variety of topography and fuel types. Elevations within the study area range from sea level to approximately 200 feet above sea level. Beginning at the Humboldt Bay Substation, along approximately the first mile of the alignment, the topography is flat and the land cover is characterized by a mix of coastal scrub, freshwater and saline wetlands, annual/perennial grasses, and isolated redwoods. For the next 1.7 miles, the Project alignment consists of gradual hills and primarily annual/perennial grassland and riparian vegetation, with some small freshwater wetlands and isolated redwoods. This portion of the Project alignment includes the following fuel models which were mapped as part of the CWPP: agricultural, grass, and light hardwood/conifer. According to the CWPP, the agricultural fuel model is considered non-burnable. Annual and perennial grasses can result in surface fires that move rapidly through the landscape and can result in flame lengths of approximately 4 feet. The light hardwood/conifer fuel model includes mostly needles, leaves, and some twigs below a conifer or hardwood canopy. This fuel model has less of an understory compared to other timber litter models; therefore, fires in this model tend to burn more slowly and at a low intensity. Fires in this model can, however, encounter a heavy fuel concentration and flare up. Generally, fires in this fuel model do not pose a control threat unless they spread due to high temperatures, low relative humidity, and high winds. Fires in this fuel type can produce flames about 2 feet tall. (HCFSC, 2018). Generally, the fuel models present within this portion of the Project alignment are likely to either be non-burnable, or to result in slower burning, lower intensity fires than other fuel models which are common in Humboldt County such as medium conifer, heavy conifer, and pine/grass (HCFSC, 2018).

The alignment then enters urbanized areas and moves in and out of urban areas and tracts of second- and third- growth redwood stands before reaching the Humboldt Substation. In this portion of the Project alignment, vegetation types are primarily urban and montane riparian with small portions of freshwater wetlands and annual/perennial grasses. Fuel models in this portion of the Project alignment include non-burnable fuel types such as urban areas and wetland areas. Additionally, this portion of the Project alignment contains areas with grass which can produce fast burning grass fires and light hardwood/conifer which typically would lead to slow burning, low intensity fires in the event of an ignition.

Overall, the fuel models present within the Project alignment are generally considered non-burnable or would result in slower burning, lower intensity fires than other fuel models which are common in Humboldt County (HCFSC, 2018).

Impact of Wildfire on Air Quality

As wildfires burn fuel, large amounts of carbon dioxide, black carbon, brown carbon, and ozone precursors are released into the atmosphere. Additionally, wildfires emit a substantial amount of volatile and semi-volatile organic materials and nitrogen oxides that form ozone and organic particulate matter. These emissions can lead to harmful exposures for first responders, nearby residents, and populations in regions that are farther from wildfire (NOAA, 2018). Exposure to these pollutants can cause asthma attacks, coughing, and shortness of breath. Chronic exposure to these pollutants can increase the risk of developing chronic health conditions such as heart disease, diabetes, and cancer (Hamers, 2018; Milman, 2018). These pollutants are described in more detail in Section 3.3, Air Quality.

As discussed in the Humboldt County Local Hazard Mitigation Plan, Humboldt County is prone to temperature inversions, which occur when a layer of warm air traps cool air near the surface and creates a lid that inhibits the dispersion of smoke and other pollutants. This phenomenon makes Humboldt County especially susceptible to the air quality impacts of smoke. The State of California's first air quality related state of emergency occurred during the Megram Fire in late August through early November 1999. During this fire, schools were closed and residents were encouraged to leave due to the impact of smoke (Humboldt County, 2014).

Fire History and Historical Fire Regime

Based on fire history data provided by the CPUC, there have been no recorded fires near the Project alignment. The nearest historical fire to the Project site is an approximately 57-acre fire that occurred 2 miles west of the Project alignment in 2008 (CPUC, 2019). Although the majority of fire activity is generally in the eastern portion of the County, destructive fires have occurred along the coastal areas. According to the CWPP, from 1908 to 2017, there have been only three fires over 10 acres within the Humboldt Bay Area Planning Unit (HCFSC, 2019). The most recent of these events was the Blue Fire, which occurred on October 8, 2019 and burned a total of 20 acres. The fire occurred east of Arcata along the Mad River and was determined to be the result of a PG&E power line conductor separating from a connector, causing the conductor to fall to the ground and ignite a fire (CAL FIRE, 2017).

According to the Humboldt Del Norte Unit Strategic Fire Plan, in Battalion 3 in 2017, approximately 21 percent of ignitions were due to “miscellaneous” causes and 21 percent of ignitions had undetermined causes. Vehicles caused 17 percent of ignitions and debris burning resulted in 13 percent of ignitions. Arson resulted in 12 percent of ignitions within Battalion 3. Electrical power, equipment use, campfire, and lightning each accounted for one ignition within the battalion, or approximately 4 percent of total ignitions within Battalion 3 in 2017 (CAL FIRE, 2018).

Fire regime refers to fire’s historic natural occurrence, variability, and influence on vegetation in the landscapes (USFS, 2018). A fire regime classification describes the frequency and severity of historical natural fires. According to CAL FIRE, portions of the Project alignment that are not located in urban or agricultural areas are classified as Fire Regime 1, or a 0 to 35-year frequency of low-severity fires (HSFSC, 2019).

Future Fire Regime

As the large-scale fires throughout Northern California and Southern California in 2017 and 2018 demonstrated, fires are getting bigger and more destructive and massive quick-spreading fires are becoming more frequent (Syphard, 2018). Wildfire trends in the western United States were discussed in the Fourth National Climate Assessment: “wildfire trends in the western United States are influenced by rising temperatures and changing precipitation patterns, pest populations, and land management practices. As humans have moved closer to forestlands, increased fire suppression practices have reduced natural fires and led to denser vegetation, resulting in fires that are larger and more damaging when they do occur. Warmer winters have led to increased pest outbreaks and significant tree kills, with varying feedbacks on wildfire. Increased wildfire driven by climate change is projected to increase costs associated with health effects, loss of homes and other property, wildfire response, and fuel management” (U.S. Global Change Research Program, 2018).

Historically, the fire season in Humboldt County was considered to be from June to mid-October; however, it is expected to be longer in the future. Additionally, it is generally expected that weather patterns in Humboldt County will become more extreme, the tempering effect of marine influence will be reduced, and forest fires are expected to be more frequent and larger (HFSC, 2018). Many factors contribute to these changes including long-term drought, changes in vegetation type and fuel loading, changing temperatures and meteorological conditions, more homes in the wildland-urban interface, and increases in the numbers of human-caused ignitions. Together, these climatic changes and human-driven changes are shifting the fire regime in Humboldt County as well as California as a whole.

Emergency Response

The Humboldt County Office of Emergency Services (OES) is the primary local coordination agency for emergencies and disasters affecting residents, public infrastructure, and government operations in the County. The Humboldt County OES provides emergency response from the Emergency Operations Center using the Incident Command System (Humboldt County, 2019). The Humboldt County Emergency Operations Plan establishes roles, responsibilities, and

procedures for emergency management in the event of an emergency or disaster. The plan notes that emergency or evacuation routes would depend on the nature and location of the emergency or disaster. The Emergency Operations Plan does not identify specific emergency response or evacuation routes (Humboldt County OES, 2015). Although official evacuation routes are not identified in the CWPP, the plan notes that Highway 101 would likely be used in the event of an evacuation along with the following smaller roads: Highway 255/Old Arcata Road, Myrtle Avenue, Elk River Road, Walnut Drive, Ridgewood Drive, and West Gate Drive (Humboldt County, 2019).

3.20.2 Regulatory Setting

Federal

There are no federal laws, regulations, or policies that are relevant to the analysis of wildfire impacts.

State

California Public Utilities Commission General Orders

General Order 95

CPUC General Order 95 applies to construction and reconstruction of overhead electric lines. The replacement of poles, towers, or other structures is considered reconstruction and requires adherence to all strength and clearance requirements of this order. CPUC Decision 17-12-024 created enhanced requirements under Rule 18A, Rule 35, and Rule 38, which apply to overhead electric lines located in Tier 2 or Tier 3 High Fire Threat Districts (HFTDs). The Project is not proposed in a Tier 2 or Tier 3 HFTD; therefore, the enhanced requirements would not apply to the Project. The CPUC has promulgated various rules to implement the fire safety requirements of General Order 95, including:

- Rule 18A, which requires utility companies take appropriate corrective action to remedy Safety Hazards and General Order 95 nonconformances. Additionally, this rule requires that each utility company establish an auditable maintenance program.
- Rule 31.2, which requires that lines be inspected frequently and thoroughly.
- Rule 35, which requires that vegetation management activities be performed in order to establish necessary and reasonable clearances. These requirements apply to all overhead electrical supply and communication facilities that are covered by this General Order, including facilities on lands owned and maintained by state and local agencies.
- Rule 38, which establishes minimum vertical, horizontal, and radial clearances of wires from other wires (CPUC, 2018).

General Order 165

General Order 165 establishes requirements for the inspection of electric distribution and transmission facilities that are not contained within a substation. Utilities must perform “Patrol” inspections, defined as a simple visual inspection of utility equipment and structures that is

designed to identify obvious structural problems and hazards, at least once per year for each piece of equipment and structure. “Detailed” inspections, where individual pieces of equipment and structures are carefully examined, are required every five years for all overhead conductor and cables, transformers, switching/protective devices, and regulators/capacitors. By July 1st of each year, each utility subject to this General Order must submit an annual report of its inspections for the previous year under penalty of perjury (CPUC, 2017b).

General Order 166

General Order 166 Standard 1.E requires that Investor Owned Utilities (IOUs)¹ develop a Fire Prevention Plan, which describes measures that the electric utility will implement to mitigate the threat of power line fires generally. Additionally, this standard requires that IOUs outline a plan to mitigate power line fires when wind conditions exceed the structural design standards of the line during a Red Flag Warning² in a high fire threat area. Fire Prevention Plans created by IOUs are required to identify specific parts of the utility’s service territory where the conditions described above may occur simultaneously. Standard 1 also requires that utilities prepare an emergency response plan. PG&E’s Emergency Response Plan, prepared in compliance with Standard 1, is described below. Standard 11 requires that utilities report annually to the CPUC regarding compliance with General Order 166 (CPUC, 2017c). In compliance with Standard 1.E of this General Order, PG&E adopted a Fire Prevention Plan on September 30, 2017.

PG&E Company Emergency Response Plan

PG&E’s Company Emergency Response Plan describes and formalizes PG&E’s in-place plans and protocols for response to emergencies. The identifies potential hazards, available resources to respond to emergencies, internal communication protocols, and operational structure. Additionally, PG&E’s Wildfire Safety Operations Center operates 24-hours a day during wildfire season (PG&E, 2018).

PG&E Fire Prevention Plan

PG&E prepared a Fire Prevention Plan in compliance with CPUC Decision 12-01-032 (Fire Safety Order), Standard 1.E of General Order 166, and Senate Bill 1028. The Fire Prevention Plan summarizes PG&E’s fire prevention and safety procedures and programs which include, but are not limited to: fire threat and risk area mapping, fire prevention pre-planning, enhanced fire detection efforts, building resiliency (including a wood pole test and treat program), operational practices to reduce the risk of fires, overhead inspections and patrols, fire prevention outreach and training programs, as well as pro-active responses to fire incidents (PG&E, 2017).

PG&E’s operational practices consider environmental conditions such as vegetation type, vegetation moisture content, relative humidity, temperature, and wind conditions. Considering these variables, PG&E created Utility Standard S1464, “Fire Danger Precautions in Hazardous Fire Areas,” which includes operational requirements for working and operating in areas that are considered high fire risk during the fire season (these areas are designated in Attachment 3 to the

¹ Investor-owned utilities (IOUs) are private electricity and natural gas providers. The CPUC oversees IOUs.

² A Red Flag Warning is issued by the National Weather Service to alert fire departments of the onset, or possible onset, of critical weather and dry conditions that could lead to rapid or dramatic increases in wildfire activity.

Fire Prevention Plan as either “Extreme” or “Very High” fire danger). According to Attachment 3, the proposed Project is located in an area rated as “Very High.” Utility Standard S1464 requires that crews working in these areas in the fire season carry firefighting equipment; prohibits personnel traveling in these areas from burning, welding, blasting, smoking, and driving off cleared road; and restricts testing any section of line that relays until the line has been patrolled and all trouble cleared.

Senate Bill 1028

Senate Bill 1028 (2016) requires each electrical corporation to construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of catastrophic wildfire posed by those electrical lines and equipment, and makes a violation of these provisions by an electrical corporation a crime under state law. The bill also requires each electrical corporation to annually prepare a wildfire mitigation plan and submit to CPUC for review. The plan must include a statement of objectives, a description of preventive strategies and programs that are focused on minimizing risk associated with electric facilities, and a description of the metrics that the electric corporation uses to evaluate the overall wildfire mitigation plan performance and assumptions that underlie the use of the metrics. PG&E developed the 2017 Fire Prevention Plan in response to the requirements of SB 1028.

Senate Bill 901

Senate Bill 901 (2018) expands on the wildfire mitigation plan requirements of Senate Bill 1028 and included a number of provisions related to wildfire risk and management in California including, but not limited to, the following: budget adjustments related to emergency response and readiness, the creation of a CAL FIRE Wildfire Resilience Program, changes to the requirements of the Forest Practice Act, and increasing the maximum penalties which can be issued by the CPUC to a public utility that fails to comply with CPUC requirements. Additionally, the legislation requires that utilities prepare wildfire mitigation plans that include elements specified in the bill such as the following: 1) a description of the preventive strategies and programs to be adopted by the electrical corporation to minimize the risk of its electrical lines and equipment causing catastrophic wildfires, including consideration of dynamic climate change risks; 2) protocols for disabling reclosers³ and deenergizing portions of the electrical distribution system that consider the associated impacts on public safety, as well as protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure; and 3) particular risks and risk drivers associated with topographic and climatological risk factors throughout the different parts of the electrical corporation’s service territory. These wildfire mitigation plans are required to be reviewed by an independent evaluator.

PG&E Wildfire Safety Plan

Pursuant to SB 901 and SB 1028, PG&E’s Wildfire Safety Plan was approved by the CPUC on May 3, 2019. The Wildfire Safety Plan describes PG&E’s approach to mitigate wildfire risk and

³ Reclosing devices, such as circuit breakers, are used to isolate circuit segments when abnormal system conditions are detected.

is accompanied by the expansion of its Public Safety Power Shutoff (PSPS) program. In order to address wildfire risk, PG&E has included the following Wildfire Reduction Measures: Enhanced Vegetation Management and Tree Removal in HFTD; Transmission, Distribution, and Substation Inspections in HFTDs; System Hardening (including replacing conductors, undergrounding lines where appropriate, replacing equipment and upgrading or replacing transformers, and installing more resilient poles) in HFTD; Situational Awareness (installing weather stations, cameras, and fire spread models); establishing Resilience Zones; and the PSPS program. The objective of this plan is to address differentiated fire risks across the state of California, reduce ignition drivers, and risk-event frequency associated with overhead electric facilities (PG&E, 2019).

2018 Strategic Fire Plan for California

Developed by the Board of Forestry and Fire Protection (the Board), the Strategic Fire Plan outlines goals and objectives to implement CAL FIRE's overall policy direction and vision. The 2018 Plan demonstrates CAL FIRE's focus on: 1) fire prevention and suppression activities to protect lives, property, and ecosystem services; and 2) natural resource management to maintain the State's forests as a resilient carbon sink to meet California's climate change goals and to serve as important habitat for adaptation and mitigation. Through the Strategic Plan, CAL FIRE implements and enforces the policies and regulations set forth by the Board and carries forth the mandates of the Governor and the Legislature (CAL FIRE, 2018b). The plan focuses on promoting interagency coordination, participating in the development of regional and local planning efforts, sharing risk assessment data, integrating fuels management practices across jurisdictions, and providing the appropriate level of resources and preparedness to enable fire suppression activities and post-fire recovery at the unit level. The goals and objectives of the Plan would not be directly applicable to the proposed Project.

Unit Plans are developed and updated in order to implement the programs and goals of the 2018 Strategic Fire Plan. The 2018 Humboldt Del Norte Unit Strategic Fire Plan outlines strategies for how the Humboldt Del Norte Unit will implement and meet the goals in the overall Strategic Fire Plan (CAL FIRE, 2018a). The Humboldt Del Norte Unit objectives focus on coordination with relevant stakeholders, increasing communication and planning coordination within communities, and improving the prescribed burning program. The goals and objectives would not be directly applicable to the Project.

California Emergency Response Plan

Pursuant to the Emergency Services Act (Government Code §8550 et seq.), California has developed an Emergency Plan to coordinate emergency services provided by federal, State, and local governmental agencies and private persons. The plan is administered by the State Office of Emergency Services (OES). The OES coordinates the responses of other agencies, including the United States Environmental Protection Agency, California Highway Patrol, California Department of Fish and Wildlife, the Regional Water Quality Control Boards (RWQCBs) (in this case the North Coast RWQCB), the local air districts (in this case, the North Coast Unified Air Pollution Control District), and local agencies. The State Emergency Plan defines the "policies, concepts, and general protocols" for the proper implementation of the California Standardized

Emergency Management System (SEMS). The SEMS is an emergency management protocol that agencies within the State of California must follow during multi-agency response efforts.

Fire Protection in California Fire Code and Public Resources Code

The California Fire Code is contained within Title 24, Chapter 9 of the California Code of Regulations. Based on the International Fire Code, the California Fire Code is created by the California Buildings Standards Commission and regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. Similar to the International Fire Code, the California Fire Code and the California Building Code use a hazards classification system to determine the appropriate measures to incorporate to protect life and property.

The California Public Resources Code includes fire safety provisions that apply to SRAs during the time of year designated as having hazardous fire conditions. During the fire hazard season these regulations restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors on equipment that has an internal combustion engine; specify requirements for the safe use of gasoline-powered tools in fire hazard areas; and specify fire-suppression equipment that must be provided on-site for various types of work in fire-prone areas. Additional codes require that any person who owns, controls, operates, or maintains any electrical transmission or distribution line must maintain a firebreak clearing around and adjacent to any pole, tower, and conductors that carry electric current as specified in Public Resources Code Sections 4292 and 4293. Section 4292 requires that a 10-foot zone around the base of poles be cleared of all flammable vegetation. The State's Fire Prevention Standards for Electric Utilities (14 Cal. Code Regs. §§1250-1258) provide specific exemptions from electric pole and tower firebreak and electric conductor clearance standards and specifies when and where standards apply.

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction." The discussion below presents local policies and regulations for informational purposes only; CPUC does not consider these regulations "applicable" as that term is used in CEQA.

Humboldt County General Plan

The Humboldt County General Plan Safety Element addresses fire hazards and emergency management in Humboldt County. The following goals and standards guide County planning and with regard to wildfire hazards (County of Humboldt, 2017).

Goal S-G4: Fire Risk and Loss. Development designed to reduce the risk of structural and wildland fires supported by fire protection services that minimize the potential for loss of life, property, and natural resources.

Standard S-S9: SRA Fire Safe Regulations. Development within SRA shall conform to SRA Fire Safe Regulations (Humboldt County Code, Division 11 of Title III as amended).

Standard S-S10. California Building Codes. New construction shall conform to the most recently adopted California building codes.

Standard S-S11. California Fire Code. The California Fire Code shall be applied to all applicable development.

Standard S-S12. Fire Hazard Severity Zone Maps. The County shall use the most recently adopted CALFIRE Fire Hazard Severity Zone Maps for fire planning and local land use and development review purposes.

Standard S-S13. Community Wildfire Protection Plan. Utilize the Community Wildfire Protection Plan for countywide fire prevention and response strategy and implementation.

City of Eureka General Plan

The Safety Element of the City of Eureka General Plan contains policies that relate to emergency preparedness within the City of Eureka. The Safety Element includes a policy that requires the City to work with Humboldt County and other agencies to establish emergency transportation corridors. However, the General Plan does not establish any evacuation routes. The General Plan does not contain any goals or policies related to wildfire hazards or protection (City of Eureka, 2018).

Humboldt Operational Area Hazard Mitigation Plan

This plan, approved by FEMA in 2014, serves as a coordinating document for risk reduction efforts for the County and incorporated cities in the Humboldt Operation Area. The plan includes a risk assessment for Humboldt County, identifies hazards in Humboldt County, identifies vulnerable assets within municipalities and unincorporated Humboldt County, and mitigation alternatives for each hazard. The goals, objectives, and mitigation alternatives in the plan do not apply to the proposed Project (Humboldt County, 2014).

Humboldt County Community Wildfire Protection Plan

The goal of the Humboldt County Community Wildfire Protection Plan (CWPP) is to prevent human caused wildfire ignition, increase community resiliency and preparedness for wildfire, support fire protection, restore beneficial fire, and maximize planning efforts to improve community resiliency to fire. The CWPP includes action plans that outline priority actions to meet the goals and objectives of the HCFSC. The CWPP includes a County-wide Action Plan as well as Planning Unit Action Plans. The County-wide Action Plan identifies potential projects to reduce ignition hazards such as the following: 1) coordinating and initiating communication between the Humboldt Fire Safe Council and PG&E regarding plans to depower lines during high wind or Red Flag conditions; and 2) identifying locations where lines may be relocated or buried (HCFSC, 2019). The County-wide Action Plan contains the following priority action relevant to the proposed Project.

Priority Action 3.2.6-2: Engage PG&E to actively reduce fuels and potential ignitions along power lines through collaborative efforts to implement risk-reduction projects.

3.20.3 Applicant Proposed Measures

The following measures pertaining to wildfire have been proposed by PG&E and would be implemented as part of the proposed Project.

APM WF-1: Smoking and Fire Rules. Smoking will not be permitted on site, except in barren areas that measures a minimum of 20 feet in diameter and are cleared to mineral soil. Under no circumstances will smoking be permitted during the fire season (approximately July through October) while employees are operating equipment, or while walking or working in grass and woodlands.

APM WF-2: Carry Emergency Fire Suppression Equipment. PG&E construction crew trucks and large equipment shall have, at a minimum, a standard roundpoint shovel and a fire extinguisher. If construction activities likely to cause sparks (e.g., welding, grinding, or grading in rocky terrain) are conducted, emergency fire tool boxes shall be readily available to crews. The emergency fire tool boxes shall contain fire-fighting items such as shovels, axes, and water.

APM WF-3: Construction Fire Prevention Plan. PG&E shall prepare a Construction Fire Prevention Plan consistent with the measures identified in APM HAZ-3, Fire Risk Management, that addresses procedures for fire prevention at active construction sites. The Construction Fire Prevention Plan shall include requirements for carrying emergency fire suppression equipment, conducting “tailgate meetings” that cover fire safety discussions, restricting smoking, idling vehicles, and restricting construction during red flag warnings. The Construction Fire Prevention Plan shall address the following fire risk reduction measures:

- Training and briefing all personnel working on the project in fire prevention and suppression methods.
- Conducting a fire prevention discussion at each morning’s safety meeting.
- Storage of prescribed fire tools and backpack pumps with water within 50 feet of work activities.
- Assigning personnel to conduct a “fire watch” or “fire patrol” to ensure that risk mitigation and fire preparedness measures are implemented, immediate detection of a fire, and to coordinate with emergency response personnel in the event of a fire.

The Construction Fire Prevention Plan will be submitted to the CPUC for review at least 30 days prior to construction

APM HAZ-3: Fire Risk Management. PG&E will follow its standard fire risk management procedures, including safe work practices, work permit programs, training, and fire response. Project personnel will be directed to park away from dry vegetation. During fire season, all motorized equipment driving off paved or maintained gravel/dirt roads will have federal- or state-approved spark arrestors. All off-road vehicles will be equipped with a shovel and a backpack pump filled with water and all fuel trucks will carry a large fire extinguisher with a minimum rating of 40 B:C

3.20.4 Environmental Impacts

Discussion

a) Substantially impair an adopted emergency response plan or emergency evacuation plan: *LESS THAN SIGNIFICANT IMPACT.*

As described in detail in Section 3.9, Hazards and Hazardous Materials, criterion f), and Section 3.17, Transportation and Traffic, criterion d), the proposed Project would have a less-than-significant impact on emergency response, evacuation plans, and emergency access during construction and operation. As described in Section 3.20.1, the Humboldt Emergency Operations Plan does not designate specific evacuation routes. Major highways and local roads are identified as primary evacuation routes in the Humboldt Community Wildfire Protection Plan. As described in Section 3.17, emergency access routes would be maintained throughout Project construction and operation. Construction vehicles and equipment needed at the pull sites would be staged or parked within Project area easements, approved temporary construction easements, or alongside access roads. Any road or lane closures would be temporary and short-term, and these closures would be coordinated with Caltrans and local jurisdictions to reduce any potential temporary and short-term effects on emergency access. Road closures could indirectly impact emergency access by resulting in congestion. However, access for emergency vehicles would be maintained during road or lane closures. Additionally, PG&E would implement APM TT-3, which would require that PG&E coordinate road and lane closures with emergency service providers, and APM TT-1, which would require that traffic controls and other traffic safety measures are in place to maintain proper traffic flow on both local and regional roadways during temporary construction activities. These measures would ensure that Project construction would not have a significant direct or indirect impact on emergency response and evacuation.

As described in Section 3.20.2, the 2018 Strategic Fire Plan for California outlines overarching goals for CAL FIRE and the 2018 Humboldt-Del Norte Unit Strategic Fire Plan identifies strategies for unit implementation of the statewide plan. Because these plans are not directly applicable to the Project, it would not conflict with or impair the implementation of the 2018 Strategic Fire Plan for California.

As described in Section 3.20.2, the Humboldt County Emergency Operations Plan outlines a general structure for Humboldt Area emergency responders in the event of an emergency in the County. The Plan does not establish any specific evacuation routes or plans, standards, goals, or policies. Therefore, the Project would not conflict with the implementation of the Humboldt County Emergency Operations Plan. Additionally, as described in Section 3.20.2, PG&E's Company Emergency Response Plan would apply to the Project in an emergency situation and would guide PG&E operations and response in the event of the emergency. The Project would not conflict with or impair the implementation of PG&E's Company Emergency Response Plan.

Therefore, the Project would not conflict with any emergency response plan or emergency evacuation plan, and impacts would be less than significant.

Mitigation: None required.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire: *LESS THAN SIGNIFICANT IMPACT.*

The Project structures are not intended for and would not be used for occupation; therefore, no occupants would be exposed to increased risks associated with wildfire. However, Project segments do pass through existing communities. Therefore, the following analysis focuses on the potential for Project construction and operation to increase the exposure of these communities to wildfire risks.

Construction

As discussed in Section 3.20.1, Environmental Setting, segments of the Project are within moderate to high fire hazard severity zones and other portions are within 800 feet of a CPUC Tier 2 Fire Threat District. The primary fire hazards from Project construction would involve the use of vehicles and equipment. Heat or sparks from construction vehicles and equipment could ignite dry vegetation and cause a fire, particularly during the drier, warmer conditions from June to October. Additionally, construction activities that could result in sparks, such as welding or grinding, have a greater likelihood of creating a source of ignition. For example, the Ranch Fire in 2018 was determined by CAL FIRE to have been caused by an individual hammering a metal stake into concrete (Sacramento Bee, 2019). Therefore, depending on the time of year (as seasonality may affect climate conditions, prevailing winds, and vegetation/fuels) and the location of construction activities, the increase in sources of potential ignition associated with Project construction could exacerbate the risk of wildfire in the area. As discussed in Section 3.20.1, wildfires release large amounts of air pollutants, which can lead to harmful exposure for first responders, nearby communities, as well as populations that are located farther away. Therefore, due to the increase in potential sources of ignition, Project construction could increase the risk of surrounding communities' exposure to pollutant concentrations from wildfire and the uncontrolled spread of wildfire, which would result in a potentially significant impact.

APMs WF-1, WF-2, WF-3, and HAZ-3 would require PG&E crews to implement smoking rules and carry fire suppression equipment during construction, prepare a Construction Fire Prevention Plan to be submitted to the CPUC for review at least 30 days prior to construction, and follow PG&E standard fire risk management procedures and work practices. The implementation of APM WF-1, WF-2, WF-3, and HAZ-3 would reduce potential sources of ignition during construction and would require that construction activities are altered in response to the changes in fire risk associated with Red Flag Warnings. Additionally, these APMs would prepare work crews with emergency suppression equipment, training, and plans in order to respond quickly to any onsite incidents caused by construction activities. Collectively, these APMs would reduce the risk of exposing surrounding communities to exacerbated risk of the uncontrolled spread of a wildfire during Project construction to a less-than-significant level.

Mitigation: None required.

Operation

The proposed Project would include the replacement of existing conductor along 7.8 miles of the HB-H #1 line and 0.6 mile of the HB-E line. Along the first 0.6 mile of the Project alignment, some wood poles would be removed, some wood poles would be shortened, and the HB-H#1 line and the HB-E line would be co-located on new Lattice Steel Towers. After this portion of the Project, modifications on the remaining 7.2 miles of the Project alignment would include pole replacements and removal and reframing or replacement of insulators on ten existing poles. Therefore, the entirety of the Project would involve work and equipment upgrades on existing power lines. The Project would not involve building or establishing new power lines in previously undisturbed wildland areas or the addition of conductors. Additionally, the Project would replace 90 existing wood poles with approximately 35 new light duty steel (LDS) poles and 55 new wood poles. LDS poles are designed to withstand higher wind speeds than wood poles and have a greater level of fire resiliency. Therefore, this component of the Project combined with upgrades to the conductor and other equipment would reduce existing ignition risk along the Project alignment. As a result, once operational, the Project would not introduce a new source of wildfire risk associated with operation and maintenance activities.

The Project also would replace eight existing LDS poles with five new wood poles and three new LDS poles. PG&E is switching five existing LDS poles to wood poles due to the presence of either underground metal pipelines or other conductive objects on the pole or within 8 feet of the pole which could affect the structure. Although the replacement of five LDS poles with wood poles would result in an increase in fire risk in the specific locations where the poles would be located, the increase in risk would not be significant because overall, the Project would result in more steel poles than wood poles compared to existing conditions; therefore, the overall fire risk due to pole material would be reduced.

Electrical lines can start a fire if an object such as a tree limb, kite, or mylar balloon simultaneously contacts the power line conductors and a second object, such as the ground or a portion of the supporting pole. System component failures and accidents during maintenance activities can also cause line faults that result in arcing (sparks) on power lines. Power lines are also subject to conductor-to-conductor contact, which can occur when extremely high winds force two conductors on a single pole to oscillate so excessively that they contact one another. This contact can result in arcing that could ignite nearby vegetation. Therefore, although the proposed Project would not increase existing wildfire risk, ongoing operation of the proposed Project would continue to be an ignition risk in the Project vicinity.

In accordance with applicable firebreak clearance requirements (Pub. Res. Code §4292; 14 Cal. Code Regs. §1254), PG&E would trim or remove flammable vegetation in the area surrounding power line poles to reduce potential fire and other safety hazards. Also, in accordance with tree and power line clearance requirements (Pub. Res. Code §4293; 14 Cal. Code Regs. §1256; CPUC GO 95), PG&E would regularly inspect and trim trees and vegetation to manage fire and safety hazards and ensure electrical reliability. The overall inspection, maintenance, risk management, emergency suppression, and response programs required by CPUC General Orders 95, 195, 165, 166, CPUC Decision 12-01-032, and California Public Utilities Code Section 702 would be incorporated into operation and maintenance protocols for the proposed Project. Access

improvements that require clearing of vegetation would be completed according to PG&E's vegetation management practices to ensure access is safe and to minimize impacts to biological and cultural resources, if any.

Additionally, data in PG&E's Wildfire Safety Plan regarding ignitions caused by transmission and distribution lines in HFTD indicates that distribution lines cause approximately 94 percent of these ignitions, while transmission lines account for the remaining 6 percent of ignitions, and that from 2015 to 2017, 28 percent of ignitions from transmission lines were caused by equipment failures (PG&E, 2019). The proposed Project would replace aging equipment with the Project alignment, reducing the risk of an ignition caused by equipment failure, and would not affect the other variables relating to ignition risk (e.g., transmission vs. distribution, contact with animals or objects).

The Project would consist primarily of reconductoring existing power lines, and replacing existing equipment such as conductor, poles, and insulators along an existing transmission line. Therefore, once operational, the Project would not significantly increase exposure to wildfire risk for surrounding communities. Due to the replacement of existing infrastructure, and replacement of wooden poles with steel poles, this Project would reduce the ignition risk of the existing transmission line. However, given the inherent potential for ignition risk associated with power lines, PG&E's Fire Prevention Plan would be incorporated into the Project's daily operation, as required by CPUC GO 166. The implementation of operational risk management programs identified in PG&E's Fire Prevention Plan and Wildfire Safety Plan would reduce the risk of an ignition during operation. Relevant programs include enhanced weather monitoring, Utility Standard S1464, the Wood Pole Test and Treat Program, Pro-Active Responses to Fire Incidents, enhancements to PG&E's Storm Outage Prediction Model, the Wildfire Reclosing Disable Program, and the implementation of the PSPS program (PG&E, 2018). Compliance with these operational requirements would reduce the risk of exposing surrounding communities to exacerbated risk of the uncontrolled spread of a wildfire during Project operation to a less-than-significant level.

Mitigation: None required.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment: *LESS THAN SIGNIFICANT IMPACT.*

As described in Section 2.7.1, temporary staging areas would be established at eleven locations during Project construction. Additionally, Section 2.7.9 describes vegetation clearance that would be implemented during construction and operation. Vegetation clearance measures would aid in reducing wildfire risk and facilitating emergency suppression of fires should they occur. These measures are considered part of the Project and the environmental impacts that may result from implementation are analyzed throughout this document on a resource-by-resource basis. In addition, construction and maintenance crews would have emergency water sources onsite in order to respond to fires. Therefore, the Project would not require the installation or maintenance

of infrastructure that has not been considered in the analysis of the proposed Project. As a result, impacts would be less than significant.

Mitigation: None required.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes: *LESS THAN SIGNIFICANT IMPACT.*

The Project does not include any housing; therefore, it would not expose people to increased risk associated with flooding, landslides, or post-fire slope instability as a result of locating housing near such existing risks.

As discussed under criterion b), Project construction has the potential to increase wildfire risk as a result of increased sources of ignition. APM WF-1, APM WF-2, APM WF-3, and APM HAZ-3 would reduce potential sources of ignition and would prepare work crews to respond to incidents caused by construction equipment. Incorporation of PG&E's Wildfire Safety Plan and Fire Prevention Plan and compliance with other vegetation clearance and maintenance requirements during operation would further ensure that the Project would not substantially increase the risk of wildfire.

As identified in Section 3.9, Hydrology and Water Quality, criterion c.iii), during construction the implementation of a stormwater pollution prevention plan (SWPPP) and best management practices (BMPs) related to erosion control would reduce potential impacts related to drainage patterns during construction to a less-than-significant level. Additionally, following construction, drainage patterns on-site would be relatively similar to existing conditions. Therefore, the proposed Project would not result in changes to runoff or drainage patterns which could exacerbate downslope or downstream flooding and thereby expose people or structures to associated risks.

Because the Project would have a low potential to exacerbate wildfire risk, it also would not pose a substantial risk of causing post-fire slope instability. Therefore, the potential for the Project to exacerbate the risk of flooding and mudslides as a result of post-fire slope instability would be less than significant.

Mitigation: None required.

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3.21 Mandatory Findings of Significance

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
21. MANDATORY FINDINGS OF SIGNIFICANCE —				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.21.1 Environmental Impacts

Discussion

- a) **Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.***

With the mitigation identified in this Draft IS/MND, the Project would not have the potential to substantially degrade the quality of the environment. As analyzed in Section 3.3, Air Quality, the Project would not conflict with or obstruct the implementation of the applicable air quality plan, and would result in less than significant impacts related to potential violation of air quality standards, the exposure of sensitive receptors to substantial pollutant concentrations, and the generation of other emissions (such as objectionable odors) adversely affecting a substantial number of people. Mitigation Measure AQ-1 would require haul trucks to be covered, a proactive paving schedule, and posting a public sign for dust complaints, among other items. Implementation of this mitigation measure would ensure that the proposed Project would not substantially degrade air quality. As analyzed in Section 3.10, Hydrology and Water Quality, the Project would have a less-than-significant impact relating to violation of water quality standards or waste discharge requirements, or substantial degradation of surface or ground water quality.

As analyzed in Section 3.4, Biological Resources, the Project would not conflict with any local policies or ordinances protecting biological resources. The Project would cause a less-than-significant impact related to interference with the movement of native resident or migratory fish or wildlife species and with established native resident or migratory wildlife corridors; it would not impede the use of native wildlife nursery sites, or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan. Mitigation Measure BIO-1 would provide for survey of trees providing potential bat habitat and a two-stage removal process, reducing impacts on roosting bats, including Townsend's big-eared bat and pallid bat, to a less-than-significant level. With the implementation of Mitigation Measure BIO-2 for restoration, impacts on special-status natural communities would be reduced to a less-than-significant level.

As analyzed in Section 3.5, Cultural Resources, the Project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines §15064.5 and a less-than-significant impact for the disturbance of human remains, including those interred outside of formal cemeteries. With the implementation of Mitigation Measure CUL-1, the Project would have a less-than-significant impact on archaeological resources pursuant to §15064.5. Additionally, as analyzed in Section 3.7, Geology and Soils, the Project would have a less-than-significant impact related to the destruction of a unique paleontological resource or site or unique geologic feature.

b) Does the project have impacts that are individually limited but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects): *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.*

CEQA Guidelines Section 15130 requires a discussion of the cumulative impacts of a project when the project's incremental contribution to a significant cumulative effect is “cumulatively considerable.” This means that the project's incremental effects are considerable when viewed in connection with the effects of past, current, and probable future projects. An incremental, project-specific contribution to a cumulative impact is less than cumulatively considerable and is not significant if, for example, the project is required to implement or fund its fair share of a mitigation measure(s) designed to alleviate the cumulative impact.

Consistent with CEQA Guidelines Section 15130(b), the CPUC has prepared a list of past, present, and reasonably foreseeable future projects that could result in related or cumulative impacts. This list includes projects outside the control of CPUC (the Lead Agency). The analysis of cumulative impacts also considers projections contained in planning documents designed to evaluate regional or area-wide conditions. Existing conditions within the cumulative impacts area of effect reflect a combination of the natural condition and the effects of past actions in the affected area. The following factors also were used to determine an appropriate list of projects to be considered in this cumulative analysis:

- **Similar Environmental Impacts** – The analysis considers “reasonably foreseeable” projects that would contribute to effects on resources also affected by the Project. These include, for example, other electric transmission or public utility-related projects.

- **Geographic Scope** – The appropriate geographic area of cumulative analysis is identified on a resource-by-resource basis as dictated by relevant physical and/or environmental boundaries (such as the extent of the groundwater basin or the roadways traveled by Project vehicles).
- **Timing and Temporal Scope** – Incremental impacts of the Project could combine with the incremental impacts of other projects to cause or contribute to cumulative effects if the Project's construction, operation, and maintenance periods coincide in terms of timing with the effects of the other projects.

The projects considered to be part of the potential cumulative scenario are presented in **Table 3.21-1**, which also describes the approximate geographic location of each project (see also **Figure 3.21-1**). The projects in the potential cumulative scenario include a range of project types. They primarily consist of recreational enhancement projects, restoration projects, infrastructure (i.e., energy) and capital improvement projects, and a couple of commercial and residential projects. These projects are considered reasonably likely to be constructed and/or operated in a similar timeframe as the proposed Project, and that could contribute incremental impacts that are similar to those of the proposed Project. Past projects are also evaluated for any incremental impacts in combination with present and foreseeable future project impacts.

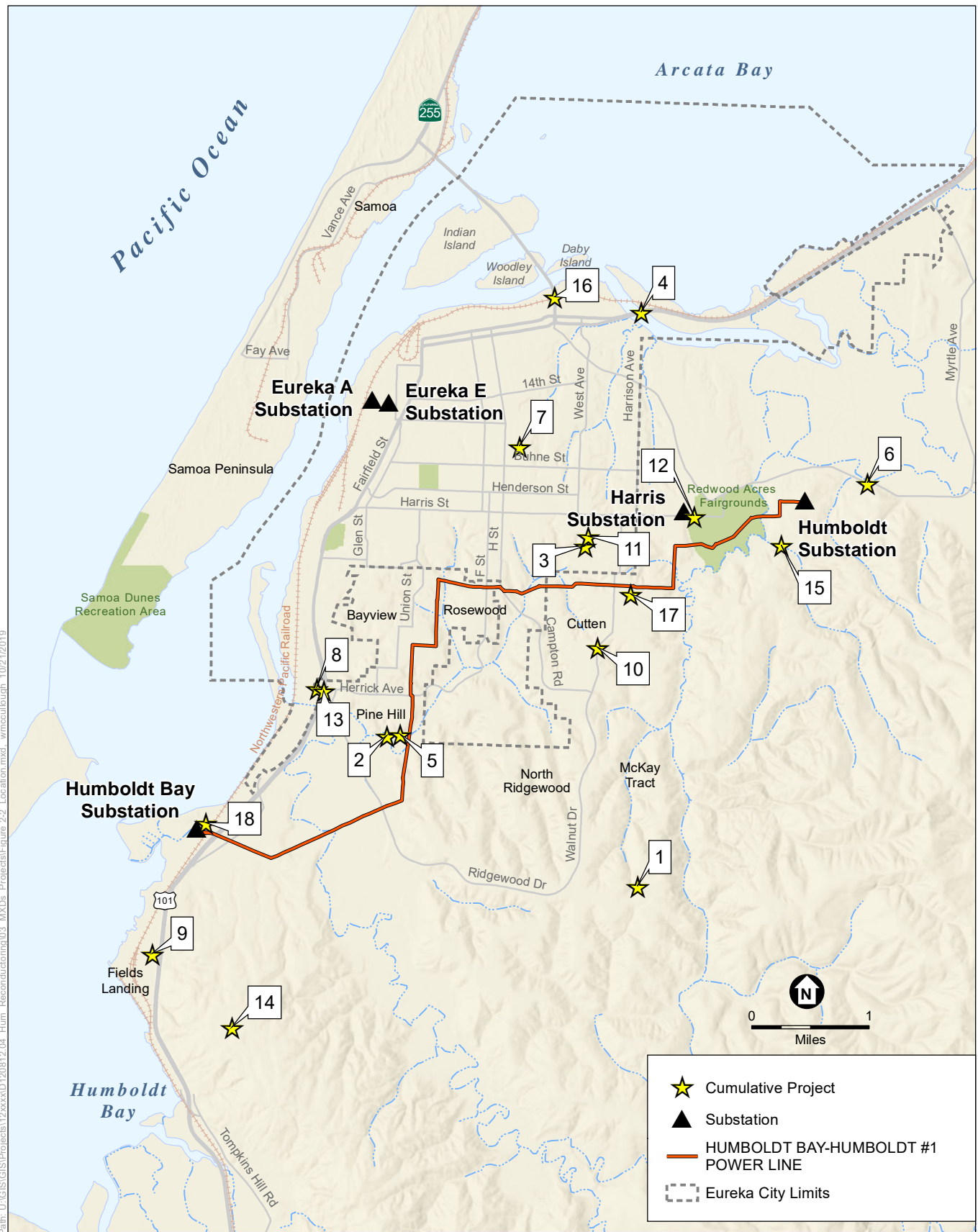
Aesthetics

As explained in Section 3.1, Aesthetics, the Project would have no impact pertaining to substantial damage to scenic resources. Therefore, the Project would not cause or contribute to any cumulative impact related to such resources. (No Impact)

The geographic scope for an assessment of cumulative impacts to aesthetic and visual resources includes the viewsheds that could be affected by the Project as observed from public roadways, open spaces, trails, or recreational areas. Within this area, construction, operation, and maintenance of the Project would cause a less-than-significant impact on scenic vistas, the existing visual character or quality of public views of the site and its surroundings, and from creating a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

As described in Section 3.1, Aesthetics, many of the impacts pertaining to aesthetics would occur during construction, as the presence of equipment, materials, and sanitation facilities would present temporary visual intrusions into an otherwise scenic area, affecting the quality of rural views for the 8-month duration of construction. The Project's reconductoring, pole removal, erection of lattice steel towers, installation of new poles, and alteration of existing structures would affect the visual landscape. APMs AE-1 and AE-4 would minimize temporary impacts pertaining to construction lighting and AE-3 would include design measures to reduce (potentially permanent) impacts associated with glare. Following construction, the new structures would be located within an existing utility corridor, in most cases within 5-10 feet of existing structures, and of comparable size and form to existing structures.

Soil disturbance, construction staging, and the presence of equipment and materials would presumably occur with most of the projects listed in Table 3.21-1, although most would not be visible from the Project alignment. All of the projects involving structures could generate new



SOURCE: PG&E; CEQAnet, 2019

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 3.21-1
Cumulative Projects

sources of light or glare, but many would not be visible from the Project. The proposed 81-acre North McKay Ranch Subdivision (no. 17 in Table 3.21-1) would be located near the proposed Project and would be constructed in a similar timeframe. This project would affect the visual character of the study area. However, the Project's contribution to the visual quality or character in the area would consist of the replacement of less than 10 wood poles. Therefore, the Project's contribution to the visual change would be minor and would not result in a significant cumulative impact. (Less than Significant Impact)

Agriculture and Forestry Resources

The Project would not conflict with existing zoning for agricultural use, forest land, timberland, Timberland Production, and/or a Williamson Act contract. Therefore, the Project would not cause or contribute to any cumulative impact related to these resources. (No impact)

The geographical context of cumulative impacts on agriculture and forestry resources include agricultural lands and forests in Eureka and in adjacent unincorporated Humboldt County. . The Project would be located within existing PG&E ROW and would not convert farmland to non-agricultural uses. The Project would be maintained in a manner consistent with current practices, which include tree trimming and removal or control of vegetation within the existing ROW, but the Project would not require new permanent ROWs or convert timberlands to non-forest uses. Therefore, the Project's incremental contribution to (less than significant) impacts on agricultural and forestry resources when considered in combination with the impacts associated with other projects in Table 3.21-1 would not be cumulatively considerable. (Less than Significant Impact)

Air Quality

The Project would not conflict with or obstruct implementation of the applicable air quality plan. Therefore, the Project would not cause or contribute to any cumulative impact in this respect. (No Impact)

Section 3.3 defines the regional study area for the air quality analysis as the North Coast Air Basin. For impacts related to exposing sensitive receptors to substantial pollutant concentrations and emissions of dust, odors, and other potential nuisance emissions, the local study area consists of areas surrounding Project work sites. Within these regional and local study areas, the Project would result in less-than-significant impacts related to potential violation of an air quality standard or cumulatively considerable net increases in existing or projected air quality; the exposure of sensitive receptors to substantial pollutant concentrations; and other emissions adversely affecting a substantial number of people. The Project would contribute to cumulative conditions in the form of short-term construction emissions; there are no additional emissions associated with operations.

The ongoing environmental effects of past projects are reflected in the baseline environmental conditions described in Section 3.3.1, Environmental Setting. As explained in that section, criteria pollutants of concern in the study area include ozone, respirable particulate matter (PM₁₀) and fine particulate matter (PM_{2.5}), carbon monoxide (CO), and sulfur dioxide (SO₂). The Air Basin is classified as a non-attainment area for the State PM₁₀ standard and is unclassified for the Federal PM₁₀ standard. For all other criteria pollutants, Humboldt County is classified as either

unclassified or as attainment with respect to State and federal standards (CARB, 2018). See Table 3.3-2 for the current attainment status of the study area.¹

The North Coast Unified Air Quality management district does not have published thresholds of significance for construction activities. As discussed in Section 3.3.4, Environmental Impacts, CPUC has elected to apply the significance thresholds developed by the Bay Area Air Quality Management District (BAAQMD) to gauge the significance of air pollutants that would be generated by the proposed Project.

BAAQMD's approach to thresholds of significance is relevant to whether a project's individual emissions would result in a cumulatively considerable adverse contribution to the Air Basin's existing air quality conditions. If a project's emissions would be less than these levels, then the project would not result in a cumulatively considerable contribution to the significant cumulative impact. Here, the Project's incremental contribution to nonattainment conditions would not be cumulatively considerable because the Project's emissions would not exceed the District's established thresholds. (Less than Significant Impact)

Other emissions that could adversely affect human health include toxic air containments (TAC): particulate matter from diesel fuel combustion (e.g., by construction activities) can contribute to incremental cancer risk and chronic non-cancer impacts. Unlike BAAQMD's approach to evaluating cumulative impacts of criteria pollutants, for human health risk, BAAQMD has cumulative thresholds of significance. The linear nature of the Project would produce emissions lasting between a few days and a few weeks at each construction site and would have negligible incremental health impacts on nearby sensitive receptors. However, as discussed in Section 3.3.4, construction work at staging areas may occur for durations that would require a Project level health risk analysis. In accordance with BAAQMD guidance, the Project would have a cumulative significant impact if the aggregate total of all past, present, and foreseeable future sources within a 1,000-foot radius from the location of a receptor, plus the contribution from the project, exceeds:

- An excess cancer risk levels of more than 100 in one million or a chronic hazard index greater than 10 for TACs; or
- 0.8 µg/m³ annual average PM_{2.5}.

The 7.8 miles of power line reconductoring has 18 construction projects within the area. Not all of these projects are nearby a staging area or occurring at the same time as the construction activities at a staging area. Other nearby sources of TAC/PM_{2.5} could be Highway 101 or the Northwestern Pacific Railroad, both of which follow the western edge of Humboldt County. Risk from this major roadway and railroad would dissipate at distances further inland and would be negligible for the majority of the Project site. As discussed in Section 3.3.4, a very conservative approach was taken when calculating potential risk from construction activities at staging areas. It was determined that the maximum exposed receptor would be located 25 meters from any one

¹ "Attainment" and "non-attainment status is assigned to geographic areas, such as air basins, based on the area's ability to meet the National or State Ambient Air Quality Standards for certain criterion pollutant, such as carbon monoxide, ozone, etc. This is explained in detail in Section 3.3.2, Air Quality, Regulatory Setting.

staging area. All staging areas are more than 25 meters from major roadways or railroads; therefore, these sources would not cumulatively contribute to the Project's maximum exposed receptor. All construction projects are farther than 25 meters from the staging areas. The staging area nearest to a project is the parking lot west of Humboldt Bay Substation, which is close to the Humboldt Bay Power Plant (HBPP) Final Site Restoration Plan Implementation. The HBPP MND had less than significant findings for the exposure of sensitive receptors to substantial pollutant concentrations (CH2M, 2015). Because the staging areas have negligible impacts from nearby sources, the cumulative cancer risk, chronic hazard index, and annual average PM_{2.5} from construction activities would be equal to the Project level impacts. (Less than Significant Impact)

Biological Resources

The Project would not conflict with any local policies or ordinances protecting biological resources and would not conflict with the provisions of a conservation plan. Therefore, the Project could not cause or contribute to potential cumulative impacts associated with ordinances or plans. (No Impact)

The geographic scope for the analysis of cumulative impacts associated with biological resources is the Project area as described in Section 3.4, Biological Resources with a 100-foot buffer. In addition, cumulative impacts could occur to the extent of each of the biological features traversed by this route, including wetlands, riparian zones, and forests. The Project would avoid in-water impacts; thus, cumulative impacts to waterways would not occur.

Resources affected by construction of the Project include a special-status plant species (Lyngbye's sedge), special-status mammals, including bats, amphibians and reptiles, and special-status and nesting bird species, as well as sensitive natural communities, including wetlands and riparian habitat. The Project would traverse both urban areas and forest lands and wetlands that provide habitat for special-status plants and birds, nesting birds, and other wildlife. Current projects in the vicinity (shown in Table 3.21-1) that also could have adverse effects on biological resources include McKay Community Forest, Sequoia Park Zoo Expansion, Martin Slough Interceptor, Humboldt Wind Energy Project, Mid-McKay Reclassification and Subdivision, Garden Apartments Multifamily Rezone, and North McKay Ranch Subdivision and General Plan Amendment. Additional planned or current habitat restoration projects would provide long-term benefit to biological resources, but may cause disturbance to existing resources during construction. These projects would be located in similar areas and, in combination with impacts from the Project, could cause a cumulatively significant impact on species-status plants, nesting birds, amphibians, reptiles, and mammal species.

With respect to special-status plants, impacts from the Project would be avoided or minimized with the implementation of APM BIO-7, which includes relocation of any impacted plants, and Mitigation Measure BIO-2, Habitat Restoration Plan, which would restore and monitor sensitive natural communities, including riparian habitat and wetlands that provide habitat for Lyngbye's sedge.

Impacts to special-status wildlife would be reduced to less than significant with implementation of APM BIO-1 through APM BIO-6 (which provide for worker environmental awareness; site

protection and restoration of temporary impacts; preconstruction surveys; avoidance of sensitive areas; and biological monitoring), APM BIO-6 and APM BIO-8 (which provide for protection of nesting birds, special-status plants, reptile and amphibians), APM BIO-12 (restricting helicopter flights to protect marbled murrelets), and Mitigation Measure BIO-1, which protects roosting bats.

Like this Project, the cumulative projects considered in this analysis are required to comply with federal and State regulations protecting special-status plant and animal species through implementation of mitigation measures during construction, which would avoid a significant cumulative impact on special-status plants and animals to which the Project could contribute. In this context, the Project's incremental less-than-significant impact would not cause or have a cumulatively considerable contribution to any significant cumulative effect relating to special-status species. (Less than Significant Impact)

During construction, the Project would temporarily impact approximately 16 acres of wetlands and 4 acres of sensitive natural communities. Other projects may also impact these communities include wetland and habitat restoration projects. However, habitat restoration projects typically cover small areas and are not geographically contiguous with the Project. In addition, the Project incorporates APM BIO-9 through APM BIO-11 for delineation and restoration of temporarily impacted areas, and mitigation for small amounts of permanently impacted habitat. Mitigation Measure BIO-2 provides for a Habitat Restoration Plan to ensure temporary impacts are restored to functioning wetlands and riparian areas. (Less than Significant Impact)

Spread of invasive plants from construction activity is minimized by actions under APM BIO-2, as well as Mitigation Measure BIO-2. Together, these measures would ensure a less-than significant impact attributable to the Project. The implementation of these mitigation actions, which include avoidance, restoration, enhancement, and monitoring would ensure that the Project would minimize its effect on jurisdictional wetlands and sensitive natural communities. Similar mitigation actions would be required of other current projects with potential impacts to wetlands and sensitive natural communities. With implementation of these APMs and mitigation measures, incremental Project-specific impacts on sensitive natural communities would not be considerable when considered with other cumulative projects identified in this analysis. (Less than Significant Impact)

The Project has a less than significant impact on wildlife corridors, with no mitigation required, due to the limited duration of construction and the lack of permanent impacts to existing wildlife corridors and nursery sites from installation of the Project. The Project would not contribute to a significant cumulative impact with regard to wildlife movement or corridors or use of nursery sites. (Less than Significant Impact)

Cultural Resources

The Project would have no impact regarding an adverse change in the significance of a historical resource. Therefore, the Project would not cause or contribute to any cumulative impact related to such resources. (No Impact)

The geographic scope for cumulative impacts on cultural resources consists of a three-mile radius around the Project alignment. While the study area for the Project-specific analysis was limited to

the Project area, the geographic scope of analysis for cumulative impacts is appropriate because the cultural resources within this area are expected to be similar to those in the Project area because their proximity, similar environments, landforms, and hydrology would result in similar land-use types and, thus, site types.

The Project area and vicinity contains a significant archaeological and historical record that, in many cases, has not been well documented or recorded. Thus, there is the potential for ongoing and future development projects in the vicinity, such as those identified in Table 3.21-1 and Figure 3.21-1, to disturb landscapes that may contain known or unknown cultural resources. Environmental analysis is either underway or completed for many of these projects. Most of the potentially cumulative projects would result in ground disturbance and development within the geographic scope of this analysis.

The Project-specific analysis determined that the Project would not significantly impact any known cultural resources, but that it has the potential to impact unknown cultural resources, including human remains and those that may qualify as historical and/or archaeological resources, as a result of inadvertent discovery. Although such impacts would be limited to areas within the study area, when combined with the potential impacts of other projects proposed within the cumulative geographic scope, cumulative impacts on cultural resources could be cumulatively significant if multiple projects were to adversely affect the significance of similar types of resources (i.e., architectural resources, archaeological sites, human remains, etc.). Implementation of Mitigation Measure CUL-1 would ensure that excavation would cease if a cultural resource (including human remains) is uncovered during Project construction or operation-related ground disturbance, thereby reducing the potential impact to a less-than-significant level. Because the mitigation is designed to avoid a change in the significance of archaeological resources, the residual Project impact after mitigation would not result in a cumulatively considerable contribution to potential cumulative impacts. (Less than Significant Impact)

Energy

The Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Therefore, the Project would not cause or contribute to any cumulative impact related to this consideration. (No Impact)

As explained in Section 3.6, the Project would cause a less-than-significant impact related to the consumption of transportation fuel during construction because it would not result in inefficient, wasteful, or unnecessary energy use compared with the energy use for other construction projects in the region.

The ongoing environmental effects of past projects are reflected in the baseline environmental conditions described in Section 3.6. As noted there, the State Board of Equalization reports that approximately 15.6 billion gallons of gasoline, including aviation gasoline, and 3.1 billion gallons of diesel, including off-road diesel, were sold in California in 2018 (BOE, 2019c). In Humboldt County, an estimated 58 million gallons of gasoline and 8 million gallons of diesel were sold in 2018 (CEC, 2019c).

Conservatively assuming that all of the cumulative projects that could generate a demand for transportation fuel (whether for construction, operation, maintenance, or decommissioning, and whether for cars, trucks, or helicopters) would require fuel at the same time as the construction of the Project, there is no evidence that the resulting fuel consumption would be wasteful, inefficient, or unnecessary. No significant cumulative effect related to wasteful, inefficient, and unnecessary consumption of energy would result. (Less than Significant Impact)

Geology and Soils, (including Paleontological Resources)

The Project would have no impact regarding rupture of a known earthquake fault, or soils incapable of supporting septic tanks or alternative wastewater disposal systems. Therefore, the Project would not cause or contribute to any cumulative impact related to these topics. (No Impact)

The geographical extent for cumulative geologic impacts includes areas in and immediately adjacent to the Project site and alignment because impacts relative to geologic hazards are generally site-specific. The Project could contribute to a cumulative impact on geology, soils, and seismicity if the effects of the Project overlapped in time and space with those of other projects in the area, producing similar effects.

Seismically-induced ground shaking, liquefaction and lateral spreading, and expansive or corrosive soils could cause structural damage or pipeline leaks or ruptures during construction and operation phases. However, state and local building regulations and standards have been established to address and reduce the potential for such impacts to occur. The Project and cumulative projects would be required to comply with applicable provisions of these laws and regulations. Through compliance with these requirements, the potential for impacts would be reduced. The purpose of the California Building Code (and local ordinances) is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction; by design, it is intended to reduce the cumulative risks from buildings and structures. Based on compliance with these requirements, the incremental impacts of the Project combined with impacts of other projects in the area would not combine to cause a significant cumulative impact related to seismically induced ground shaking, liquefaction and lateral spreading, or expansive or corrosive soils. (Less than Significant Impact)

A Construction General Permit would require that most cumulative projects prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) with Best Management Practices (BMPs) to control run-off and prevent erosion. Through compliance with this requirement, the potential for erosion impacts would be controlled. The Construction General Permit has been developed to address cumulative conditions arising from construction throughout the state, and is intended to maintain cumulative effects of projects subject to this requirement below levels that would be considered significant. In this context, the Project's incremental less-than-significant contribution would not cause or contribute to any significant cumulative effect relating to soil erosion or the loss of topsoil. (Less than Significant Impact)

Regarding paleontological resources, the Centerville and Price Creek Formations have a moderate paleontological potential, and construction associated with the Project may disturb those formations. While the likelihood of fossil recovery is low, APMs PALEO-1 (resource recovery)

and PALEO-2 (worker awareness training) would further reduce any potential impacts to paleontological resources. Compliance with regulations for the protection and recovery of paleontological resources (Public Resources Code Section 5097.5 and 30244, as described in Section 3.7), in combination with APMs PALEO-1 and PALEO-2 would ensure that the Project's contribution toward cumulative effects on paleontological resources would not be cumulatively considerable. (Less than Significant Impact)

Greenhouse Gas Emissions

As noted in Section 3.8, Greenhouse Gas Emissions, the California Air Pollution Control Officers Association (CAPCOA) considers greenhouse gas (GHG) impacts to be exclusively cumulative impacts (CAPCOA, 2008); therefore, assessment of significance is based on a determination of whether the GHG emissions from a project represent a cumulatively considerable contribution to the global atmosphere. Although the geographic scope of cumulative impacts related to GHG emissions is global, this analysis focuses on impacts associated with potential conflicts with California's reduction goals set forth in Executive Order S-3-05, Executive Order B-30-15, Assembly Bill (AB) 32 and the Project's direct and/or indirect generation of GHG emissions. The Project would result in less-than-significant emissions of GHGs and would not conflict with the state's GHG reduction goals. Therefore, the Project-specific incremental impact associated with GHG emissions would not contribute to a significant cumulative impact, and the incremental impact would not be cumulatively considerable. (Less than Significant Impact)

Hazards and Hazardous Materials

The Project would not be located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, the Project would not cause or contribute to any cumulative impact related to this topic. (No Impact)

The geographic scope of the analysis for cumulative hazards and hazardous materials impacts is limited to the Project site and its immediately adjacent area that would experience construction activity by cumulative projects at the same time as the Project. Impacts relative to hazards and hazardous materials are generally site-specific and depend on the nature and extent of the hazards and hazardous materials released, and existing and future soil and groundwater conditions. For example, hazardous materials incidents tend to be limited to small, localized areas surrounding the immediate spill location and extent of the release, and could only be cumulative if two or more hazardous materials releases overlapped spatially and temporally.

The cumulative projects listed in Table 3.21-1 would be subject to the same regulatory requirements, including the implementation of health and safety plans and soil and groundwater management plans, as needed. Cumulative projects involving releases of, or encountering, hazardous materials all would be required to remediate their respective sites to the same established regulatory standards. This would be the case regardless of the number, frequency, or size of the release(s), or the residual amount of chemicals present in the soil from previous spills. While it is possible that the Project and cumulative projects could result in releases of hazardous materials at the same location and time, the responsible party associated with each spill would be required to remediate site conditions to the same established regulatory standards. The potential residual effects of the Project that would remain after compliance with regulatory requirements

would not combine with the potential residual effects of cumulative projects to cause a significant cumulative impact because residual impacts would be highly site-specific and would have been cleaned up to the same regulatory standard. In addition to the federal and state regulations, the Project would be required to comply with APM HAZ-1 (Hazardous Substance Control and Emergency Response), which would minimize any potential impacts. Accordingly, no substantial cumulative impact with respect to the use of hazardous materials would result. (Less than Significant Impact)

Cumulative projects may also require temporary lane closures that could interfere with emergency plans or routes, which would be a significant cumulative impact. However, similar to the Project, cumulative projects that require temporary lane closures also would be required by the local agency with jurisdiction to implement traffic control plans to enable flow around construction zones. In addition, the Project would adhere to APM TT-1 (Temporary Traffic Controls) and APM TT-3 (Air Traffic Control), which would minimize traffic related impacts. (Less than Significant Impact)

Hydrology and Water Quality

The geographic scope of cumulative impacts related to hydrology and water quality encompasses the watersheds, flood hazard areas, and groundwater basins affected by the Project. The Project and cumulative projects are located in the Eureka Plain Watershed (specifically, the Elk River and Freshwater Creek watersheds) and the Eureka Plain Groundwater Basin.

The Project would cause less-than-significant impacts regarding: substantial degradation of surface or ground water quality; substantial depletion of groundwater supplies or substantial interference with groundwater recharge; substantial alteration of existing drainage patterns in a manner which would result in substantial erosion or siltation, increase surface runoff resulting in on- or off-site flooding, create runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect flood flows; the risk of release of pollutants due to project inundation (for projects in flood hazard, tsunami, or seiche zones); or conflict with or obstruction of implementation of a water quality control plan or sustainable groundwater management plan.

Implementation of APM BIO-2 would ensure any hazardous materials spills are reported within 24 hours and that construction crews are trained on how to properly handle hazardous materials spills. Implementation of APM WQ-1 would ensure that PG&E prepare a SWPPP to reduce erosion, prevent hazardous materials spills and sediment discharge, and identify appropriate BMPs to minimize impacts on surface water and groundwater.

Adherence to APMs BIO-2 and WQ-1 would reduce impacts regarding degradation of water quality, groundwater recharge, alteration of existing drainage patterns, or conflicts with water plans to less than significant. Considering the small size and fragmented distribution of new impervious surfaces, along with the required erosion and siltation controls and return to pre-project conditions, the Project would not cause or contribute to any cumulative impact related to alteration of drainage patterns, groundwater recharge, or degradation of water quality. (Less than Significant Impact)

Water utilized during Project construction for dust control and other construction activities would be obtained from hydrants, and therefore would not affect or decrease groundwater supplies. The amount of impervious surface added by the Project would be negligible, and these new surfaces would be designed to meet the post-construction requirements of the Construction General Permit. Additionally, APM WQ-1 would further reduce any potential impacts to groundwater supplies by adhering to the requirements of the SWPPP.

While parts of the Project alignment would be within 100-year flood, tsunami, and seiche zones, the Project would not place substantial new pollutant sources within these zones. Additionally, adherence to APMs BIO-2 and WQ-1 would further reduce the risk of release of hazardous materials by required training and reporting of spills, as well as implementation of SWPPP requirements.

There is no groundwater management plan in place for the Eureka Plain Groundwater Basin. However, as stated above, APMs BIO-2 and WQ-1 would be implemented to minimize impacts to groundwater resources.

Like this Project, the cumulative projects would be required to comply with federal, State, and local regulations and other mitigations associated with the cumulative projects protecting water quality. With the implementation of similar protective measures by the cumulative projects, together with the Project's less-than-significant impacts, it is not considered likely that there would be a significant adverse cumulative condition with water quality to which the Project would contribute. Therefore, the incremental contributions of Project-related impacts would not be cumulatively considerable. (Less than Significant Impact)

Land Use and Planning

The Project would have no impact pertaining to the physical division of an established community or to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, the Project would not cause or contribute to any cumulative impact related to Land Use and Planning. (No Impact)

Mineral Resources

The Project is not located in a mineral resource area or within a locally-important mineral resource recovery site delineated on any local land use plans. Therefore, the Project would not cause or contribute to any cumulative impact related to Mineral Resources. (No Impact)

Noise

The geographic scope for the evaluation of cumulative changes in construction noise and vibration environment attributable to the Project would be localized in urban areas of Humboldt County and the City of Eureka. The Project-specific study area for noise is the area surrounding the Project where Project construction and operational noise may be heard. Generally, noise and vibration impacts from a project, especially from construction activities are not felt beyond 0.5-mile from the source as they attenuate with distance, and depending on the presence of intervening topography and structures. Cumulative projects located within 0.5-mile of the Project include the Martin Slough Enhancement Conditional Use Permit, Sequoia Park Zoo Expansion and Renovation, Martin Slough Interceptor Project, Wood Creek Estuary, Tidal Marsh, and Fish

Access Enhancement Project, Mid-McKay Tract Zone Reclassification and Parcel Map Subdivision, Garden Apartments Multifamily Rezone & Coastal Dev. Permit, Gordon Parcel Map Subdivision, North McKay Ranch Subdivision, General Plan Amendment (GPA-15-005), Zoning Ordinance Amendment (ZR-15-008), Major Subdivision (FMS-15-004), Planned Development, and Humboldt Bay Power Plant (HBPP) Final Site Restoration Plan Implementation. The Project would contribute to a cumulative noise impact along with these projects only if their construction schedules coincide or overlap.

As discussed in Section 3.13, Noise, the Project would have a less than significant impact pertaining to the exposure of people residing or working in the Project area to excessive noise levels associated with an airport or airstrip. Though the easternmost portions of the Project alignment are located within 2 miles of Murray Field Airport, a public airport operated by Humboldt County, it would be located outside noise impact areas (60 dBA CNEL) associated with the airport. The Project would not introduce any permanent receptors who could be exposed to airport noise. The presence of other cumulative projects in the vicinity would not affect the extent to which project construction workers would be affected by airport noise. Therefore, the Project would not cause or contribute to any cumulative impact related to these considerations.

Additionally, operation and maintenance of the Project would not introduce any new permanent sources of noise or groundborne vibration to the study area. Operation and maintenance activities along the alignment will continue to be conducted with the same frequency as current activities. The Project would not contribute to any significant cumulative noise and vibration impacts along the Project alignment once construction is completed.

Therefore, the potential for the Project to contribute to a cumulative noise impact exists only if the Project's construction schedule coincides or overlaps with other projects taking place in the immediate vicinity of the Project alignment. Cumulative projects located within 0.5-mile from the Project alignment are listed earlier. A significant cumulative impact could result if the incremental impacts of the Project and at least one other of the cumulative projects leads to an exceedance of noise or vibration criteria used for analysis at the same receptor.

The Project's construction impacts, with the implementation of mitigation measures NOI-1a, NOI-1b, and NOI-1c, would be less than significant related to substantial temporary increases in ambient noise levels in excess of standards and the generation of excessive groundborne vibration or groundborne noise levels during construction. Given that construction of the Project would proceed along the alignment, the impacts to any receptors would be short-term. Many of the cumulative projects listed would not occur during the same construction period, or are currently without an estimated construction date. Therefore, given that the noise sources associated with the Project and that cumulative projects would be distributed spatially and temporally, the chances of noise impacts from multiple projects adding up and affecting the same set of receptors is very low. Therefore, with the implementation of identified mitigation measures, considering the locations and schedules for the cumulative projects, the Project's incremental less-than-significant contribution would not cause or contribute to any significant cumulative effect relating to noise or vibration. (Less than Significant Impact)

Population and Housing

As analyzed in Section 3.14, Population and Housing, the Project would have no impact pertaining to the displacement of substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere, or related to the direct inducement of substantial unplanned population growth. Therefore, the Project would not cause or contribute to any cumulative impact related to these considerations. (No Impact)

Section 3.14 defines the study area for Population and Housing as including the communities within which the Project would be constructed and operated. The geographic scope of analysis for cumulative impacts includes these same communities.

Operation of the Project would not provide access to previously inaccessible areas, extend public services to previously unserved areas, or cause new development elsewhere. The Project is intended to address curtailment and reliability issues and is not intended to extend power lines to areas that are not already served. Therefore, the Project is not proposed to advance growth in the area, but rather to address existing service issues.

The Project would result in a less than significant, temporary impact from potential in-migration of construction workers. The projects listed in Table 3.21-1 and shown on Figure 3.21-1 include residential development and commercial developments that also would require construction labor. As the Project is not expected to induce substantial in-migration of construction workers, the Project's contribution to demand for temporary construction worker housing would not be considerable. (Less than Significant Impact)

Public Services

The Project would have no impact associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools, parks, or other public facilities. Therefore, the Project would not cause or contribute to any cumulative impact related to these considerations. (No Impact)

As analyzed in Section 3.15, the Project could result in a less-than-significant impact associated with the provision of or need for new or physically altered governmental facilities for fire and/or police protection. The Project-specific study area and geographic scope for the analysis of cumulative impacts related to police and fire protection facilities includes the service territories of the police and fire emergency service providers that serve the City of Eureka and unincorporated Humboldt County. See Section 3.15.1, Environmental Setting, which describes the service providers and their service areas.

The ongoing environmental effects of construction needed to provide acceptable service ratios, response times, or other performance objectives to meet the demands of past projects are reflected in the baseline environmental conditions described in Section 3.15.1. Any development that would occur in the cumulative scenario could incrementally increase the demand on police services. However, there is no evidence that these incremental increases in demand collectively would result in substantial adverse physical impacts associated with the provision of or need for

new or physically altered governmental facilities. There is no existing significant adverse condition relating to response capabilities that necessitates new or modified facilities, and the development and operation of projects in the cumulative scenario, together with construction and operation of the Project, would not cause or contribute to a significant cumulative effect in this regard. Even if a significant cumulative effect were to occur to police services, the Project's incremental contribution would not be cumulatively considerable because the proposed improvements would not substantially increase existing demands on emergency services. (Less than Significant Impact)

As with fire services, any development that would occur in the cumulative scenario could incrementally increase the demand on fire protection services. However, there is no evidence that these incremental increases in demand collectively would result in substantial adverse physical impacts associated with the provision of or need for new or physically altered fire protection services. (Less than Significant Impact)

Recreation

The Project would have no impact pertaining to the proposed construction or expansion of recreational facilities because the Project does not include recreational components, the construction of which might have an adverse physical effect on the environment. Therefore, the Project would not cause or contribute to any cumulative impact related to this consideration. (No Impact)

Section 3.16 defines the study area for that analysis as the footprint of all components of the Project including the neighboring parks, open spaces, and other lands used for recreational purposes within 1 mile of the Project alignment. The Project would cause a less-than-significant impact related to the potential for a temporary shift in park and recreational facility use from facilities near Project-related construction activities to other facilities. This possible short-term use could lead to temporary indirect impacts on those parks and trails during the few months of construction along each segment, thereby resulting in physical deterioration of those other facilities.

The ongoing environmental effects of park use resulting from past projects are reflected in the baseline environmental conditions. Projects can increase the use of area parks and other recreational facilities by increasing demand and by displacing use from one facility to another. Several present and future recreational projects such as the Sequoia Park Zoo Expansion and Renovation, Jay Willard Gymnasium Replacement Project, McKay Community Forest, and/or Waterfront Development Project would be analyzed cumulatively with impacts of the proposed Project. The Project is anticipated to cross through McKay Community Forest and is discussed in Section 3.16. The Project's incremental contribution to a cumulative impact would not be cumulatively considerable because of the limited duration of any potential shift due to pole replacement and reconductoring work that would occur over the course of approximately 6 to 8 months. (Less than Significant)

Transportation

Section 3.17 defines the study area for this analysis as the local and regional transportation system, including roads maintained by the City of Eureka and Humboldt County; Highway 101, State Route (SR) 36, and SR 299. Within this area, and as analyzed in Section 3.17, the Project

would have less-than-significant impacts related to: a conflict with a program plan, ordinance or policy addressing the circulation system; a conflict or inconsistency with CEQA Guidelines section 15064.3(b); a substantial increase in hazards due to a geometric design feature or incompatible uses; and inadequate emergency access.

The ongoing environmental effects of past projects are reflected in the baseline environmental conditions, including on-road congestion levels and hazards, flight patterns, and emergency access ways described in Section 3.17.1, Environmental Setting. For example, the ongoing impacts of past projects include LOS A, LOS B, and LOS C conditions on the study roadway segments along Highway 101, SR 36, and SR 299, which are considered to be acceptable operating conditions according to City and/or County standards (see Table 3.17-3, Existing Peak-Hour Levels of Service on Regional Study Area Roadways).

Projects in the cumulative scenario that could contribute increases in average daily traffic (ADT) along road segments where the Project's construction personnel, equipment, and other construction-related trips would access work areas and staging yards would include, but not be limited to, Martin Slough Enhancement Conditional Use Permit, Martin Slough Interceptor Project, and Humboldt Bay Power Plant Final Site Restoration Plan Implementation. These same projects also would contribute to an incremental increase in construction-related roadway hazards that could be offset by the use of guard structures, proper signage, safety cones, flaggers, and other traffic control measures. One additional cumulative project that could require lane closures or otherwise affect operation of the bus stop at Redwood Street/Walnut Street served by the ETS Red Route, that may be affected by construction of the Project, is North McKay Ranch Subdivision, General Plan Amendment (GPA-15-005), Zoning Ordinance Amendment (ZR-15-008), Major Subdivision (FMS-15-004), and Planned Development.

Implementation of APM TT-1 (Temporary Traffic Controls) would require PG&E to obtain all necessary transportation and encroachment permits from Caltrans, the City of Eureka, and Humboldt County, which would include required road and lane closures or width reduction or traffic diversion plans. Implementation of APM TT-1 would ensure the safe and efficient transit of vehicles, trains, bicyclists, and pedestrians adjacent to staging and work areas. The other construction projects identified in Table 3.21-1 would also be required to prepare and implement temporary traffic control plans. Therefore, it is reasonably expected that these jurisdictions, as part of their review of temporary traffic control plans, would ensure coordination of traffic management measures for concurrent construction projects. Implementation of APM TT-3 (Coordinate Road Closures with Emergency Service Providers and School Districts) would ensure that PG&E coordinates with the applicable emergency service providers and school districts in the Project vicinity to ensure minimal disruption to school access and to allow emergency service providers to alter their travel routes in advance of any lane or roadway closures. With implementation of the APMs, cumulative impacts during construction would not be cumulatively considerable. (Less than Significant Impact)

Tribal Cultural Resources

The geographic scope for cumulative impacts on tribal cultural resources consists of a three-mile buffer around the Project area. While the study area for the Project-specific analysis was limited

to the Project area, as described in Section 3.18, Tribal Cultural Resources, this geographic scope of analysis for cumulative impacts is appropriate because the tribal cultural resources within this area are expected to be similar to those in the Project area due to their similar environments, landforms, hydrology, and association with California Native American Tribes.

The Project area and vicinity contains important sites, features, places, cultural landscapes, sacred places, and objects with cultural value to California Native American Tribes that, in many cases, have not been well documented or recorded. Thus, there is the potential for ongoing and future development projects in the vicinity, such as those identified in Table 3.21-1 and Figure 3.21-1, to disturb landscapes that may contain known or unknown tribal cultural resources.

Environmental analysis is either underway or completed for many of these projects. Most of the potentially cumulative projects would result in ground disturbance and development within the geographic scope of this analysis.

The Project-specific analysis determined that the Project would not significantly impact any known tribal cultural resources, but that it has the potential to impact unknown tribal cultural resources as a result of inadvertent discovery. Although such impacts would be limited to areas within the study area, when combined with the potential impacts of other projects proposed within the cumulative geographic scope, cumulative impacts on tribal cultural resources could be cumulatively significant if multiple projects were to adversely affect the significance of similar types of resources (i.e., sites, features, places, cultural landscapes, sacred places, and objects). Implementation of Mitigation Measure CUL-1 would ensure that excavation would cease and consultation with appropriate California Native American Tribes would occur if a potential tribal cultural resource is uncovered during Project construction or operation-related ground disturbance, thereby reducing the potential impact to a less-than-significant level. Because the mitigation is designed to avoid a change in the significance of tribal cultural resources, the residual Project impact after mitigation would not result in a cumulatively considerable contribution to potential cumulative impacts. (Less than Significant Impact)

Utilities and Service Systems

The Project would have no impact pertaining to exceedance of wastewater treatment requirements of the Northcoast RWQCB; the construction of new water or wastewater treatment facilities or expansion of existing facilities; the construction of new storm water drainage facilities or expansion of existing facilities; the sufficiency of water supplies available to serve the Project from existing entitlements and resources; or the adequacy of capacity to serve the Project's projected demand in addition to the provider's existing commitments. Therefore, the Project would not cause or contribute to any cumulative impact related to these considerations. (No Impact)

With respect to existing permitted landfill capacity, the geographic scope of analysis for cumulative impacts is defined as the area served by the Dry Creek Landfill and the Kettleman Hills Landfill, which is approved to accept treated wood waste and PG&E has identified as a destination landfill for treated wood waste from the Project. As described in Section 3.19.4, the Project would have a less than significant impact related to the sufficiency of landfill capacity to accommodate the Project's solid waste disposal needs. Additionally, the Project would have a

less-than-significant impact related to compliance with federal, state, and local statutes and regulations related to solid waste.

The ongoing environmental effects of past projects are reflected in the baseline environmental conditions described in Section 3.19.1. As of 2017, the Dry Creek Landfill had a remaining capacity of approximately 69.8 million tons, or approximately 91 percent of the landfill's maximum permitted capacity. Many of the residential, commercial, and industrial projects included in the cumulative scenario would contribute nonhazardous solid waste to the Dry Creek Landfill. However, given the remaining capacity at the Dry Creek Landfill, it is expected that there is sufficient capacity to accommodate the landfill needs of the Project and other projects in the cumulative scenario. (Less than Significant Impact)

As described in Section 3.19.1, Kettleman Hills Landfill has approximately 17,468,595 cubic yards of remaining capacity (CalRecycle, 2019). Given the remaining capacity at the landfill, there is sufficient capacity at the landfill to accept the typical amount of treated wood that is generated by the area served by the Kettleman Hills Landfill. Therefore, the existing cumulative impact is less than significant. (Less than Significant Impact)

Wildfire

As analyzed in Section 3.20, Wildfire, depending on the pathway of migration, the geographic scope for cumulative effects relating to wildfires would be the air basin, watershed boundary, or extent of adjacent wildlands. Cumulative wildfire hazards could arise at any point during Project construction or operation and maintenance-related activities. Potential cumulative projects (including those identified in Table 3.21-1 and on Figure 3.21-1) could involve fire ignition causes (such as smoking, vehicle or equipment use, campfires, or electrical power) that could contribute to a cumulative risk of wildfire in the Project area.

The Project would result in a less-than-significant impact regarding the interference with adopted emergency response or evacuation plans. As noted in Section 3.20.4, the Project would not conflict with or impair the implementation of the 2018 Strategic Fire Plan for California or the goals or objectives listed in the 2018 Humboldt Del Norte Unit Strategic Fire Plan. Additionally, the implementation of APM TT-3 would require that PG&E communicate and coordinate lane closures with local fire prevention and emergency response agencies. APM TT-1 would require that traffic controls and other traffic safety measures be in place to maintain traffic flow on local and regional roadways during temporary construction activities. With the implementation of these APMs, the Project would not cause or contribute to any cumulative impact related to interference with adopted emergency response or evacuation plans. (Less than Significant Impact)

Although the Project would not accommodate occupants, it passes through existing communities. Therefore, the Project has the potential to expose these communities to wildfire risks. As noted in Section 3.20.4, parts of the Project would be located in moderate-to-high fire hazard severity zones. APMs WF-1, WF-2, WF-3, and HAZ-3 require PG&E to implement construction fire prevention measures including the preparation of a Construction Fire Prevention Plan. The implementation of these APMs would reduce potential impacts to a less than significant level by

reducing potential sources of ignition and implementing response protocols in the event that a fire is ignited.

Although the majority of fire activity is generally in the eastern portion of the County, destructive fires have occurred along the coastal areas. However, as noted in Section 3.20.1, electric utilities accounted for only 3 percent of wildfires in the CAL FIRE Humboldt Del Norte Unit in 2017. Section 2.7.9, Vegetation Clearance, notes that the Project includes vegetation clearance provisions. Section 2.7.6, Access/Spur Roads describes that the Project includes access roads. Additionally, the proposed Project involve the replacement of 90 existing wood poles with approximately 35 light duty steel poles (LDS), which are designed to withstand higher wind speeds and have a greater level of fire resiliency. Therefore, this component of the Project combined with upgrades to the conductor and other equipment would reduce existing ignition risk along the Project alignment. As a result, once operational, the Project would not introduce a new source of wildfire risk associated with operation and maintenance activities. These features would aid in reducing wildfire risk and facilitating emergency suppression of fires.

PG&E has developed operating protocols and safety standards that minimize the risk of wildland fires during PG&E operation and maintenance activities, including the 2017 Fire Prevention Plan, prepared in compliance with CPUC Decision 12-01-032 (Fire Safety Order) and Standard 1.E of General Order 166, which requires PG&E to prepare and submit plans to minimize the risk of catastrophic wildfire posed by all of PG&E's overhead electric lines and equipment during extreme fire-weather events. The Project would be included in this plan. Additionally, PG&E has prepared a 2018 Company Emergency Response Plan and a 2019 Wildfire Safety Plan. In addition to fire prevention plans and procedures, during the operation of the line, the overall inspection, maintenance, risk management, emergency suppression, and response programs required by CPUC General Orders 95, 195, 165, 166, CPUC Decision 12-01-032, and California Public Utilities Code Section 702 would be utilized. Given Project features such as access roads, vegetation clearance provisions, emergency suppression equipment, regulatory requirements, and the fact that the Project would replace existing aging infrastructure and wood poles, the addition of the incremental impact of the Project to the existing cumulative impact would not be cumulatively considerable. (Less than Significant Impact)

As noted in Section 3.20.4, the Project would not include any housing or structures; therefore, it would not expose people or structures to any increased level or risk associated with flooding, landslides, or post-fire slope instability. The analysis also notes that the Project would not result in changes to drainage patterns that could exacerbate downslope or downstream flooding, or exacerbate existing risks associated with landslides or mudslides. These less-than-significant findings are attributable to the Project's adherence to the Construction Stormwater General Permit and associated SWPPP as well as APMs WF-1, WF-2, WF-3, and HAZ-3 and the fire prevention plans and practices discussed in Section 3.20.4. Based on these factors, the Project's incremental less-than-significant impact would not be cumulatively considerable. (Less than Significant Impact)

**TABLE 3.21-1
CUMULATIVE SCENARIO**

ID	Project Name	Project Location	Approximate Distance from Project	Jurisdiction	Project Description	Status/ Construction Start Date	Status/ Construction End Date
1	McKay Community Forest Phase II	McKay Community Forest	1.2 miles	Natural Resources Agency	The project is the acquisition of approximately 190 acres of timberland to expand the existing 1000-acre McKay Community Forest located within a portion of the McKay Tract. The Phase II property will be managed for multiple objectives including public access and recreation, sustainable timber harvest and resource protection.	NOE Submitted in 2017	
2	Martin Slough Enhancement Conditional Use Permit	Pine Hill Rd and Meyers Ave	Adjacent to the Project	Humboldt County	Project will construct estuary enhancements to approx. 8,000 linear feet of Martin Slough and its tributaries in Humboldt County.	NOD issued in 2018	
3	Sequoia Park Zoo Expansion and Renovation	Glatt and Madrone	0.2 miles	City of Eureka	The Sequoia Park Zoo Expansion and Renovation consists of several renovations and enhancements within the existing footprint of the zoo, including: the development of new exhibits and facilities within the current footprint of the zoo; enhanced animal welfare facilities; increased visitor amenities including new recreational areas; new food service and retail facilities; expanded areas for special events and educational activities. In addition to the renovations within the existing footprint of the zoo, the project also consists of an expansion to the west of the current zoo to accommodate the development of the Native Predators exhibits, a redwood canopy walk, trails, and an educational facility.	MND published in 2017	
4	Eureka-Arcata Route 101 Corridor Improvement Project	Highway 101 near Arcata	1.4 miles	Caltrans 1(Eureka)	Construct roadway improvements on a portion of US 101 in and near the town of Arcata.	NOD published in 2017	
5	Martin Slough Interceptor Project	Martin Slough	Adjacent to proposed Project	City of Eureka	The project is limited to one encroachment. The encroachment is for horizontal directional drilling (HDD) underneath a wetland and unnamed tributary to Martin Slough. The Humboldt Community Services District (HCSD) proposes to construct a new wastewater transmission line (force main) for a distance of approx. 1600 feet between the existing Sea Avenue sewer lift station and the newly installed Martin Slough Interceptor (MSI) "2.0 Line" force main. The proposed new section of forced main would modify the route the waste water follows on its way to City of Eureka's wastewater treatment facility.	NOD issued in 2019	

**TABLE 3.21-1
CUMULATIVE SCENARIO**

ID	Project Name	Project Location	Approximate Distance from Project	Jurisdiction	Project Description	Status/ Construction Start Date	Status/ Construction End Date
6	Wood Creek Estuary, Tidal Marsh, and Fish Access Enhancement Project	Myrtle Avenue and Pigeon Point Road	0.5 miles	Humboldt County	The project is limited to one encroachment that includes element of the project divided between Phase I and Phase II. Phase II is focused on creation of off-channel winter rearing habitat specific to coho salmon. The Phase II project will create approx. 3.5 acres of slough channels, pools, and seasonably available off-channel habitat. To complete this project, approx. 8,230 cubic yards of material will be excavated to create the 3.5 acres of pond and slough habitat. In addition, approx. 6450 cubic yards of fill will be placed in the Phase I project areas at depths from 0.2 to 1.6 feet to improve topography and drainage with the intent to transform existing mud flat to salt marsh.	NOD issued in 2016	
7	Jay Willard Gymnasium Replacement Project	J St and Humboldt St	1.4 miles	Eureka City Schools	The proposed project would replace and modernize an existing school gym. It would involve the demolition of the existing gym and construction of a replacement gym to the west of the existing gym. To accommodate the siting of the new gym and facilitate safe student access, new concrete walkways would also be constructed, and the existing bus lane and parking areas on the project site would be reconfigured. The replacement gym would serve the same student population and accommodate the same uses as the existing gym (i.e. physical education classes, sports events), but would be smaller in size than the existing facility and would not provide an indoor pool.	NOD issued in 2017	
8	City of Eureka Elk River Estuary/Inter-Tidal Wetlands Enhancement and Coastal Access Project	Pound Rd and Tooby Rd	0.8 miles	City of Eureka	The city of Eureka proposes to restore and enhance estuary and inter-tidal wetland habitats on approx. 114 acres adjacent to Elk River. The project would enhance and restore approx.: 78 acres of salt marsh, 13 acres of riparian habitat, and 13 acres of inter-tidal channels, which may provide nearly ten acres of valuable Eelgrass (<i>Zostera marina</i>) habitat. The city also proposes to enhance public access to Elk River and Humboldt Bay with an approx. 1 mile extension of its Class 1 ADA Waterfront Trail, and the construction of a non-motorized boat launch, several causeways and viewing platforms, and a trail head parking area off Tooby Rd.	NOD issued in 2018	

**TABLE 3.21-1
CUMULATIVE SCENARIO**

ID	Project Name	Project Location	Approximate Distance from Project	Jurisdiction	Project Description	Status/ Construction Start Date	Status/ Construction End Date
9	Humboldt Wind Energy Project	US 101, Hwy 36, Multiple other local streets	Wind turbines (20 miles southeast), staging area 1 mile from Project	Humboldt County	Project includes: a) 60 turbines ranging between 2.2 and 4.5 MW, erected on tubular steel towers set on concrete foundations, and associated turbine pads, temporary staging areas, and transformers; b) Roads, consisting of existing and new roads, and including both temporary access roads required for construction and permanent service roads for O&M, as well as minor public road improvements to facilitate turbine delivery; c) 115 kV Gen-Tie providing project Interconnection with the existing PG&E transmission system; d) substation to connect to the Gen-Tie; e) electrical collection system linking turbines to each other and to the substation; f) communication system (fiber optic cable) adjacent to the collection system; g) O&M facility including an operations building and outdoor storage area; h) meteorological towers (METs); i) temporary construction staging areas.	EIR published April, 2019	
10	Mid-McKay Tract Zone Reclassification and Parcel Map Subdivision	Walnut Dr and Holly St	0.50 mile	Humboldt County	The applicant proposes a minor subdivision, zone reclassification, immediate TPZ rollout and HCSD annexation of an 88-acre parcel. The parcel is proposed to be subdivided into four parcels for future residential and neighborhood commercial development, with areas reserved for recreational and open space opportunities. A zone reclassification is proposed to reflect the site's natural topographic limitations, protect existing riparian and stream habitat, encourage logical future development, and for consistency with the site's current LUD.	MND issued in 2018	
11	City of Eureka Bay to Zoo Trail	Sequoia Zoo to Coastal Trail		California Coastal Conservancy	Conduct preliminary design and environmental review of the Bay to Zoo trail, which will connect the eastern half of the City of Eureka with the California Coastal Trail.	NOE issued 2018	

**TABLE 3.21-1
CUMULATIVE SCENARIO**

ID	Project Name	Project Location	Approximate Distance from Project	Jurisdiction	Project Description	Status/ Construction Start Date	Status/ Construction End Date
12	Garden Apartments Multifamily Rezone & Coastal Dev. Permit	Harris Ave & Hubbard Lane	0.2 miles	Humboldt County	This project proposes to rezone four adjacent parcels in the Myrtle town area, northeast of the city of Eureka, just inside the coastal zone boundary, in order to accommodate a multi-family housing development called the Garden Apts. The project involves: (1) a GPA to change the designation of approx 2.2 acres from CG to RM with a density range of 8 to 30 dwelling units per acre; (2) a rezone of said lands from CG to RM; and (3) A Coastal Development Permit to construct the proposed 66 multifamily units and (4) a merger of the four properties together. The project is served by a paved County Road (Hubbard Lane), and public water and wastewater systems. The rezone in part implements Phase II of a program from the 2014 Housing Element (H-IM37), which calls for the rezoning of selected properties to encourage multifamily uses, and to meet regional housing needs for lower income people.	Nod issued 2018	
13	Broadway ADA Project	US Route 101 from just north of Herrick Interchange to just north of Cedar St	0.8 miles	Caltrans 1 (Eureka)	Caltrans proposes to construct improvements on US Route 101 between PM 75.3 and 77.6 in Humboldt County in the city of Eureka for compliance with the ADA. Work would include replacing or installing curb ramps, sidewalks, driveways, and splitter islands. The project would also improve drainage and the install audible pedestrian systems at all existing signalized intersections.	NOD issued 2019	
14	Humboldt Hill Land and Cattle Minor Subdivision	Humboldt Hill Rd and Donna Dr	1.5 miles	Humboldt County	The project consists of two parts: a Lot Line Adjustment and Minor Subdivision. The Lot Line Adjustment will adjust the boundaries between three parcels resulting in three parcels (Parcel A, Parcel B and Parcel C). Proposed Parcel A will be approx. 91 acres in size and utilized for agricultural purposes. Proposed Parcel B will be divided into four parcels and a Remainder ranging in size between 16 acres and 22 acres. The parcels will be served with community water and sewer provided by the Humboldt Community Services District. A Fault Evaluation Report has been prepared and approved by the County's consulting geologist. An exception	MND issued 2018	

**TABLE 3.21-1
CUMULATIVE SCENARIO**

ID	Project Name	Project Location	Approximate Distance from Project	Jurisdiction	Project Description	Status/ Construction Start Date	Status/ Construction End Date
14 cont.					request to the maximum length of a Dead End Road has been submitted to and approved by Cal fire. Proposed Parcel C will be approx. 40 acres in size.		
15	Gordon Parcel Map Subdivision	Cummings Rd and Mitchell Rd	0.4 miles	Humboldt County	A minor subdivision to divide an approx. 20-acre parcel into two parcels of approx. 6 acres and 14 acres in size. The parcel is developed with a single family residence which will remain on proposed parcel 1. Proposed parcel 2 will be vacant and suitable for residential development. A special permit is required for minor road improvements within the Streamside Management Area (SMA). The parcels will be served by community water provided by Humboldt Community Services District and on-site wastewater treatment systems. An exceptions request to allow the parcels to be served by a road that exceeds the dead end road length has been approved by Cal fire.	MND issued 2019	
16	Waterfront Development; Public Restroom, Recreational Facility and Commercial Hospitality	W. Waterfront Drive and R Street	2.3 miles	City of Eureka	The City of Eureka Community Services Department and Travis Schneider and Stephanie Bode (collectively, "Applicants") propose to construct public restroom, recreational, and commercial hospitality facilities on a number of previously developed waterfront parcels owned by the City of Eureka and by Mr. Schneider and Ms. Bode. The project will involve the removal of two existing structures, the construction of a 6,000 sf building housing a public, restroom and commercial recreation hospitality and office facility.	MD issued 2019	
17	North McKay Ranch Subdivision, General Plan Amendment (GPA-15-005), Zoning Ordinance Amendment (ZR-15-008), Major Subdivision (FMS-15-004), Planned Development	Cutten, near Sequoia Park	0.4 miles	Humboldt County	Kramer Properties, Inc. proposes to subdivide 7 parcels of land, approximately 81 acres total in size, into 154 mixed-use lots (Figures 3A-3E). Uses for the lots are intended to include single-family dwellings, multifamily dwellings, and neighborhood commercial. A total of 320 residential units are proposed which, based on market conditions, may include 110 single-family houses and 210 multifamily units. Two commercial parcels are also proposed as part of the project, which will contain approximately 22,000 square feet of commercial space. The project would occur as a nine-phase subdivision; other on-site	NOP issued 2019	

**TABLE 3.21-1
CUMULATIVE SCENARIO**

ID	Project Name	Project Location	Approximate Distance from Project	Jurisdiction	Project Description	Status/ Construction Start Date	Status/ Construction End Date
17 cont.					improvements would include open space, access roads, utilities, landscaping, stormwater infrastructure, etc. Consistent with Humboldt County Zoning Regulations Section 313-31.1.6.5.4, all utilities shall be placed underground. Lots are to be served by community water, wastewater, and street lighting services which are to be extended from Humboldt Community Services District (HCSD). The project includes annexation into HCSD. The project includes a General Plan Amendment and Rezoning. A Planned Development is proposed to allow for lots smaller than the minimum parcel size for this zone. Redwood and Arbutus Streets are proposed to be extended east, with Arbutus Street curving north and eventually intersecting with Redwood Street; Additional side streets will be constructed southeast and northeast of Redwood and Arbutus Streets. All development is proposed to occur on the flat upper terrace portion of the property. Development will have an approximate 100-foot buffer from the 30% break in slope to protect steep slopes from erosion, thereby protecting Ryan Creek and accompanying wetlands. Steep slopes and drainages will remain in protected open space area, in addition to stands of trees to protect adjacent viewsheds and provide habitat. The project is located in the unincorporated area of Humboldt County, California (Township 5 North, Range 1 West, in the Northwest quarter of Section 36) and is within the United States Geological Survey (USGS) 7.5-minute Eureka topographic quadrangle. Elevations at the site occur between 150 and 200 feet above mean sea level.		
18	Humboldt Bay Power Plant (HBPP) Final Site Restoration Plan Implementation	King Salmon Avenue and US 101	Adjacent	Humboldt Bay Harbor	Decommissioning and site restoration activities at the PG&E Humboldt Bay Power Plant (nuclear generating unit).	NOD issued in 2015	

Source: Ceqanet, PG&E, 2019

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

The Project would not have environmental effects that would cause substantial direct or indirect adverse effects on human beings with implementation of the identified mitigation measures. Implementation of the mitigation measures identified in the respective sections of this IS/MND would reduce or avoid such impacts on human beings to a less-than-significant level.

3.21.2 References

- California Department of Resources Recycling and Recovery (CalRecycle), 2019. SWIS Facility Detail: Chemical Waste Management, Inc. Unit B-17 (16-AA-0027). Available online: <https://www2.calrecycle.ca.gov/swfacilities/Directory/16-AA-0027/>
- CH2M, 2015. Humboldt Bay Power Plant Decommissioning Program Final Site Restoration Plan Implementation. Final Initial Study/Mitigated Negative Declaration. June 2015. <http://humbolddbay.org/sites/humbolddbay2.org/files/HBPP%20Final%20Site%20Restoration%20-%20Initial%20Study.pdf>

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CHAPTER 4

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CHAPTER 5

Mitigation Monitoring, Compliance, and Reporting Program

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PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM

Pacific Gas and Electric's Humboldt Bay - Humboldt #1 60kV Reconductoring Project (APPLICATION NO. A.19-02-004)

Introduction

This document describes the mitigation monitoring, compliance, and reporting program (MMCRP) for ensuring the effective implementation of the mitigation measures required for the California Public Utilities Commission (CPUC) approval of the Pacific Gas and Electric's (PG&E) application to construct, operate and maintain the Humboldt Bay-Humboldt #1 60kV Reconductoring Project (Project). The MMCRP includes all measures proposed by PG&E (APMs), and all mitigation measures identified by the CPUC to reduce potentially significant impacts to less than significant. All APMs and mitigation measures are presented in **Table 5-1** provided at the end of this MMCRP.

If the Project is approved, this MMCRP would serve as a self-contained general reference for the Mitigation Monitoring, Compliance, and Reporting Program adopted by the CPUC for the Project. If and when the Project is approved by the Commission, the CPUC will compile the Final Plan from the Mitigation Monitoring Program in the Final Mitigated Negative Declaration (MND), as adopted.

California Public Utilities Commission – MMCRP Authority

The California Public Utilities Code in numerous places confers authority upon the CPUC to regulate the terms of service and the safety, practices, and equipment of utilities subject to its jurisdiction. It is the standard practice of the CPUC, pursuant to its statutory responsibility to protect the environment, to require that mitigation measures stipulated as conditions of approval are implemented properly, monitored, and reported on. In 1989, this requirement was codified statewide as Section 21081.6 of the Public Resources Code. Section 21081.6 requires a public agency to adopt a reporting or monitoring program when it adopts a mitigated negative declaration for a project that could have potentially significant environmental effects. California Environmental Quality Act (CEQA) Guidelines Section 15097 was added in 1999 to further clarify agency requirements for mitigation monitoring and reporting.

The purpose of a MMCRP is to ensure that measures adopted to mitigate or avoid significant impacts of a project are implemented. The CPUC views the MMCRP as a working guide to facilitate not only the implementation of mitigation measures by the project proponent, but also the monitoring, compliance, and reporting activities of the CPUC and any monitors it may designate.

The CPUC will address its responsibility under Public Resources Code Section 21081.6 when it takes action on PG&E's application. If the CPUC approves the application, it also will adopt a MMCRP that includes the mitigation measures ultimately made conditions of approval by the CPUC. Because the CPUC must decide whether or not to approve the PG&E application and because the application may cause either direct or reasonably foreseeable indirect effects on the environment, CEQA requires the CPUC to consider the potential environmental impacts that could occur as the result of its decision and to consider mitigation for any identified significant environmental impacts.

If the CPUC approves PG&E's application for authority to reinforce the electric transmission and distribution system, PG&E would be responsible for implementation of all of the Applicant Proposed Measures (APM) and all mitigation measures governing the construction, operation, and maintenance of the Project. Though other federal, State, and local agencies would have permit and approval authority over some aspects of the Project, the CPUC would continue to act as the lead agency for monitoring compliance with all mitigation measures required by the adopted IS/MND. All approvals and permits obtained by PG&E would be submitted to the CPUC prior to commencing the activity for which the permits and approvals were obtained.

In accordance with CEQA, the CPUC reviewed the impacts that would result from approval of the application. The activities considered include replacement of 7.8 miles of existing bare single circuit conductors and insulators on the Humboldt Bay to Humboldt #1 (HB-H#1) 60kV Power Line (reconductoring) between the existing Humboldt Bay and Humboldt Substations. The Project would also include relocation of 0.6 miles of Humboldt Bay to Eureka (HB-E) 60kV Power Line to a new tubular steel pole (collocated with HB-H#1), and relocation of Humboldt Bay to Humboldt #2 Power Line (including pole removal and relocation) onto the new tubular steel pole on the HB-E Power Line. Reconductoring would involve removal and/or replacement of power poles, placement of new poles and lattice steel towers, shortening of poles, insulators, and other infrastructure upgrades.

The CPUC review concluded that implementation of the Project would not result in any significant unmitigable impacts. All potential impacts would be mitigated to less-than-significant levels or would be less than significant. PG&E has agreed to incorporate all the CPUC-recommended mitigation measures into the Project. The CPUC has included the stipulated mitigation measures as conditions of approval of the application and has circulated an IS/proposed MND for public review.

Because the CPUC must decide whether or not to approve the PG&E application and because the application may cause either direct or reasonably foreseeable indirect effects on the environment, CEQA requires the CPUC to consider the potential environmental impacts that could occur as the

result of its decisions and to consider mitigation for any identified significant environmental impacts.

The attached IS/MND presents and analyzes potential environmental impacts that would result from construction, operation, and maintenance of the Project, and recommends mitigation measures as appropriate. Based on the IS/MND, approval of the application would have no impact or less than significant impacts in the following areas:

- Aesthetics
- Agriculture and Forestry Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Transportation
- Utilities and Service Systems
- Wildfire

The IS/MND indicates that approval of the application would result in potentially significant impacts in the areas listed below, and so identifies APMs and mitigation measures that have been accepted by PG&E to reduce the significance below established thresholds.

- Air Quality
- Biological Resources
- Cultural Resources
- Noise
- Tribal Cultural Resources

Roles and Responsibilities

As the lead agency under CEQA, the CPUC is required to monitor the Project to ensure that the required mitigation measures and all APMs are implemented, as described in the IS/MND. The CPUC will be responsible for ensuring full compliance with the provisions of this MMCRP and has primary responsibility for implementation of the monitoring program. The purpose of the monitoring program is to document that the mitigation measures and APMs required and relied upon by the CPUC are implemented and that mitigated environmental impacts are reduced to a less-than-significant level. The CPUC has the authority to halt any activity associated with the Project if the activity is determined to be a deviation from the approved Project or the adopted APMs and mitigation measures.

The CPUC may delegate duties and responsibilities for monitoring to other mitigation monitors or consultants as deemed necessary. The CPUC will ensure that the person(s) delegated any duties or responsibilities are qualified to monitor compliance.

The CPUC, along with its mitigation monitor, will ensure that any variance process, which will be designed specifically for the Project, or deviation from the procedures identified under the monitoring program is consistent with CEQA requirements; no Project variance will be approved by the CPUC if it creates new significant environmental impacts. As defined in this MMCRP, a variance should be strictly limited to minor Project changes that will not trigger other permit

requirements, that does not increase the severity of an impact or create a new impact, and that clearly and strictly complies with the intent of the mitigation measure. A change to the Project that has the potential for creating significant environmental effects will be evaluated to determine whether supplemental CEQA review is required. Any proposed deviation from the approved Project and adopted mitigation measures, including correction of such deviation, shall be reported immediately to the CPUC and the mitigation monitor assigned to the construction for their review and CPUC approval. In some cases, a variance also may require approval by a CEQA responsible agency.

Enforcement and Responsibility

The CPUC is responsible for enforcing the procedures for monitoring through the environmental monitor. The environmental monitor shall note problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the CPUC. The CPUC has the authority to halt any construction, operation, or maintenance activity associated with the Project if the activity is determined to be a deviation from the approved Project or adopted APMs or mitigation measures. The CPUC may assign its authority to its environmental monitor.

Mitigation Compliance Responsibility

PG&E is responsible for successfully implementing all of the adopted APMs and mitigation measures in this MMCRP. The MMCRP contains criteria that define whether mitigation is successful. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Additional mitigation success thresholds will be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

PG&E shall inform the CPUC and its mitigation monitor in writing of any mitigation measures that are not or cannot be successfully implemented. The CPUC in coordination with its mitigation monitor will assess whether alternative mitigation is appropriate and specify to PG&E the subsequent actions required.

Dispute Resolution Process

The MMCRP is expected to reduce or eliminate potential disputes between CPUC staff and the applicant concerning implementation of the adopted mitigation measures. Issues should first be addressed informally at the field level between the CPUC Environmental Monitoring Team and the PG&E Environmental Compliance Team with questions that may be raised to the PG&E Project Manager or Construction Manager, as necessary. Should the issue not be resolved at the field level, the following procedure will be observed for dispute resolution between CPUC staff and the applicant:

- Disputes and complaints should be directed first to the CPUC's designated Project Manager for resolution. The Project Manager will attempt to resolve the dispute.
- Should this informal process fail, the CPUC Project Manager may initiate enforcement or compliance action to address deviations from the approved Project or MMCRP.

General Monitoring Procedures

Mitigation Monitor

Many of the monitoring procedures will be conducted during the construction phase of the Project. The CPUC and the mitigation monitor are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with PG&E. To oversee the monitoring procedures and to ensure success, the mitigation monitor assigned to the construction must be on site during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The mitigation monitor is responsible for ensuring that all procedures specified in this MMCRP are followed.

Construction Personnel

A key feature contributing to the success of mitigation monitoring will be obtaining the full cooperation of construction personnel and supervisors. Many of the mitigation measures and APMs require action on the part of the construction supervisors or crews for successful implementation. To ensure success, the following actions, detailed in specific mitigation measures included in this MMCRP, will be taken:

- PG&E shall require all contractors to comply with the conditions of Project approval, including all applicable APMs and mitigation measures.
- One or more pre-construction meetings will be held to inform all and train construction personnel about the requirements of the MMCRP.
- A written summary of mitigation monitoring procedures will be provided to construction supervisors for all APMs and mitigation measures requiring their attention.

General Reporting Procedures

Site visits and specified monitoring procedures performed by other individuals will be reported to the mitigation monitor assigned to the construction. A monitoring record form will be submitted to the mitigation monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the mitigation monitor. A checklist will be developed and maintained by the mitigation monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The mitigation monitor will note any problems that may occur and take appropriate action to rectify the problems. PG&E shall provide the CPUC with written quarterly reports of the Project, which shall include progress of construction, resulting impacts, mitigation implemented, and all other noteworthy elements of the Project. Quarterly reports shall be required as long as mitigation measures are applicable.

Public Access to Records

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available for public inspection by the CPUC on request. The CPUC and PG&E will develop a filing and tracking system.

Condition Effectiveness Review

In order to fulfill its statutory mandates to mitigate or avoid significant effects on the environment and to design a MMCRP to ensure compliance during project implementation (Pub. Res. Code §21081.6):

- The CPUC may conduct a comprehensive review of conditions which are not effectively mitigating impacts at any time it deems appropriate, including as a result of the Dispute Resolution procedure outlined above; and
- If in either review, the CPUC determines that any conditions are not adequately mitigating significant environmental impacts caused by the project, or that recent proven technological advances could provide more effective mitigation, then the CPUC may impose additional reasonable conditions to effectively mitigate these impacts.

These reviews will be conducted in a manner consistent with the CPUC's rules and practices.

Mitigation Monitoring, Compliance, and Reporting Program

The table attached to this MMCRP presents a compilation of the adopted APMs and mitigation measures in the IS/MND. The purpose of the table is to provide a single comprehensive list of impacts, mitigation measures, adopted APMs, monitoring and reporting requirements, and timing. PG&E proposed APMs to minimize environmental impacts associated with implementation of the Project. In some instances, those APMs have been superseded by CPUC-recommended mitigation measures, as described in the IS/MND. The table below identifies only those APMs that have not been superseded and will be implemented as part of the Project.

TABLE 5-1
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Aesthetics				
Impact 3.1.a: Have a substantial adverse effect on a scenic vista.	<p>APM AE-1: Nighttime lighting to minimize potential visual impacts of construction activity. In the unlikely event that nighttime construction activities are necessary, measures such as use of non-glare or hooded fixtures and directional lighting will be used to reduce spillover into areas outside the construction site and minimize the visibility of lighting from off-site locations wherever feasible.</p> <p>APM AE-2: Construction Cleanup. Construction debris will be picked up regularly from construction areas. The appearance of disturbed land areas will be restored through implementation of re-contouring and/or re-vegetation.</p> <p>APM AE-4: Design and operation of staging areas to minimize potential visual impacts. Security lighting may be installed at staging areas including helicopter sites. If nighttime security lighting is required in close proximity to sensitive locations such as existing residences, it will be directional and focused to minimize potential spillover or glare with respect to areas outside the staging area, and non-glare or hooded fixtures may be utilized.</p>	PG&E and its contractors to implement measure as defined	CPUC monitor to inspect compliance.	During construction of the project.
Impact 3.1.c: Substantially degrade the existing visual character or quality of public views of the site and its surroundings, or since the project is in an urbanized area, whether it would conflict with applicable zoning and other regulations governing scenic quality	Implement APMs AE-2 and AE-4 (listed under Impact 3.1.a).	PG&E and its contractors to implement measure as defined	CPUC monitor to inspect compliance.	During construction of the project.
Impact 3.1.d: Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area	<p>Implement APMs AE-1, AE-2, and AE-4 (listed under Impact 3.1.a) and APM AE-3</p> <p>APM AE-3: Use of Galvanized Finish on LDSs, TSPs, and LSTs. Use of a galvanized finish that will weather to a dull, non-reflective patina on new steel poles and lattice towers will reduce potential for a new source of glare resulting from introduction of project elements.</p>	PG&E and its contractors to implement measure as defined	CPUC monitor to inspect compliance.	During construction of the project.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Agriculture and Forestry Resources				
Impact 3.2.e: Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use	Implement APM AE-2 (listed under Impact 3.1.a).	PG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance.	During construction of the project.
Air Quality				
Impact 3.3.a: Conflict with or obstruct implementation of the applicable air quality plan	APM AQ-1: Minimize Fugitive Dust. PG&E will minimize fugitive dust during construction by implementing the following measures: <ul style="list-style-type: none"> • Reduce the amount of the disturbed area where possible. • Use water trucks or sprinkler systems in dry weather in sufficient quantity to prevent airborne dust from leaving the site. • Implement dust control measures as soon as possible following completion of any soil-disturbing activities. • Establish a policy that vehicle speed for all construction vehicles is not to exceed 15 miles per hour on any unpaved surface. • Water all active construction areas (including storage piles) as needed to suppress dust. Base the frequency on the type of operation and the soil and wind exposure. • Cover or maintain at least 2 feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. • Sweep adjacent public roads if visible soil material is carried out from a work site. 	PG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.
Impact 3.3.b: Violate any air quality standard or result in a cumulatively considerable net increase in an existing or projected air quality violation	Implement APM AQ-1 (listed under Impact 3.3.a) and Mitigation Measure AQ-1 Mitigation Measure AQ-1: Supplemental Best Management Practices. The following measures shall be implemented during the construction phase by PG&E and/or its construction contractors: <ul style="list-style-type: none"> • All exposed surfaces that could cause dust (e.g., undeveloped parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered one to two times per day during dry conditions. 	PG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Air Quality (cont.)				
	<ul style="list-style-type: none"> All haul trucks transporting soil, sand, or other loose material off-site shall be covered. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Construction workers will be trained on this requirement during tailboard construction trainings. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. Post a publicly visible sign with the telephone number and person to contact at PG&E regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations. 	PG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.
Impact 3.3.c: Expose sensitive receptors to substantial pollutant concentrations	<p>Implement APM AQ-1 (listed under Impact 3.3.a) and APM GHG-1</p> <p>APM GHG-1: Minimize GHG Emissions.</p> <ul style="list-style-type: none"> Maintain construction equipment in proper working conditions in accordance with PG&E standards. Minimize unnecessary construction vehicle idling time. The project will apply a "common sense" approach to vehicle use, so that idling is reduced as far as possible below the maximum of 5 consecutive minutes allowed by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Maintain construction equipment in proper working condition in accordance with PG&E standards. Minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible. Portable diesel-fueled construction equipment with engines of 50 horsepower or larger and manufactured in 2000 or later will be registered under the CARB Statewide Portable Equipment Registration Program. Minimize welding and cutting by using compression of mechanical applications where practical and within standards. Encourage the recycling of construction waste where feasible 	PG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources				
Impact 3.4.a: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service	APM BIO-1: Development and implementation of a Worker Environmental Awareness Program. A qualified biologist will conduct an environmental awareness program for all on-site construction personnel before they begin work on the project. Training will include a discussion of the avoidance and minimization measures that are being implemented to protect biological resources as well as the terms and conditions of project permits. Training will include information about the federal and state Endangered Species Acts and the consequences of noncompliance with these acts. Under this program, workers shall be informed of the presence, life history, and habitat requirements of all special-status species that may be affected in the project area, and about state and federal laws protecting nesting birds, wetlands, and other water resources. An educational brochure will be produced for construction crews working on the project. Color photos of special-status species will be included, as well as a discussion of relevant APMs and specific avoidance or minimization measures for special-status species and habitats.	PG&E and its contractors to implement measure as defined	CPUC biological monitor to inspect compliance.	Prior to construction and during all phases of construction activities.
	APM BIO-2: General Resource Protection Measures. This APM consists of the following components: <ul style="list-style-type: none"> • <i>Litter and trash management.</i> All food scraps, wrappers, food containers, cans, bottles, and other trash will be removed from the site daily. • <i>Parking.</i> Vehicles and equipment will be parked on pavement, existing roads, developed areas, or approved construction work areas. • <i>Route and speed limitations.</i> Vehicles will be confined to established roadways or previously disturbed roadways and pre-approved access roads, overland routes, and construction work areas. Access routes and temporary construction work areas will be limited to the minimum necessary to achieve the project goals. Vehicular speeds will be limited to 15 miles per hour on unpaved roads • <i>Maintenance and refueling.</i> All equipment will be maintained to avoid leaks of automotive fluids such as fuels, solvents, or oils. All refueling and maintenance of vehicles and other construction equipment will be restricted to designated staging areas located at least 100 feet from any down-gradient aquatic habitat, unless otherwise isolated from habitat by secondary containment. Proper spill prevention and cleanup equipment will be maintained in all refueling areas. • <i>Hazardous materials spills.</i> Emergency spill response and cleanup kits will be readily available for immediate containment and cleanup of an accidental spill. Construction crews will be trained in safe handling of hazardous materials and cleanup responsibilities. Any spills into aquatic habitat will be reported to the CPUC, USACE, State Water Resources Control Board, and the California Coastal Commission (if within the coastal zone) within 24 hours. 	PG&E and its contractors to implement measure as defined	CPUC biological monitor to inspect compliance	Prior to onset of construction and during all phases of construction activities.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources (cont.)				
Impact 3.4.a (cont.)	<ul style="list-style-type: none"> <i>Pets and firearms.</i> No pets, hunting, open fires (such as barbecues), or firearms will be permitted at the project site. <i>Reporting and communication.</i> The PG&E project biologist will be responsible for immediately reporting any capture and relocation, or inadvertent harm, entrapment, or death of a federally or state listed species under ESA or CESA, respectively to the USFWS and CDFW, respectively. <i>Restore temporarily disturbed habitats.</i> All habitat areas for special-status species that are temporarily disturbed as a result of project activities will be restored upon completion of construction. Disturbed areas will be restored to pre-project conditions in coordination with land owners and in compliance with resource agency permit conditions. Tidal marsh areas will be allowed to passively restore or as otherwise required by resource agency permit requirements. <i>Erosion control materials.</i> Only tightly woven netting or similar material will be used for all geo-synthetic erosion control materials such as coir rolls and geo-textiles. No plastic monofilament matting will be used. <i>Minimize grading and vegetation removal along access roads and construction work areas, to the extent feasible.</i> PG&E will only trim, clear, or remove vegetation as necessary to establish the access routes and allow equipment use. Trees will be directionally felled away from sensitive biological resource areas, and if that is not possible, removed in sections. Damage to adjacent trees will be avoided to the extent possible. <i>Weed management.</i> Vehicles and construction equipment will be cleaned of mud and dirt on site at a PG&E wash facility or otherwise approved wash-down location as needed to minimize transport of weed plant parts or seed. Vehicles will also be cleaned at the completion of the project or when off-road use for that vehicle has been completed. 			
	<p>APM BIO-3: Conduct Preconstruction Survey(s) for Special-Status Species and Sensitive Biological Resource Areas. A qualified biologist will conduct pre-construction survey(s) in areas identified in the BRTR as having habitat for special-status species and sensitive biological resource areas, either during the appropriate phenological period for plants or within 7 days prior to construction activities for wildlife. If any special-status species is encountered during the pre-construction survey(s), the PG&E project biologist will be contacted immediately. If any special-status species are found nearby but outside the construction work area, they will not be disturbed. If recommended by the biologist, a temporary silt-fence barrier may be installed to prevent special-status species from entering the construction work area(s) during project activities.</p>	PG&E and its contractors to implement measure as defined.	CPUC biological monitor to inspect compliance.	Within 7 days prior to construction and during all phases of construction activities.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources (cont.)				
Impact 3.4.a (cont.)	APM BIO-4: Identification and Marking of Sensitive Biological Resource Areas. Sensitive biological resources (e.g., special-status plants, wetlands) in or adjacent to construction work areas identified during the pre-construction surveys, will be clearly marked in the field and on project maps. Such areas will be avoided during construction to the extent practicable.	PG&E and its contractors to implement measure as defined.	CPUC biological monitor to inspect compliance.	Within 30 days prior to construction.
	APM BIO-5: Biological Monitor On-Site during Construction Activities in Sensitive Biological Resource Areas. A qualified biologist will be onsite during ground-disturbing construction activities in sensitive biological resource areas identified in APM BIO-4 above unless the area has been protected by barrier fencing to protect sensitive biological resources and previously cleared by the qualified biologist. The qualified biologist will ensure implementation and compliance with all avoidance and mitigation measures and have the authority to stop or redirect work if construction activities are likely to affect sensitive biological resources.	PG&E and its contractors to implement measure as defined	CPUC biological monitor to inspect compliance.	During all phases of construction activities.
	APM BIO-6: Nesting Bird Impact Avoidance and Protection. If construction work is scheduled during the nesting season (February 1 through August 31), nest detection surveys will correspond with a standard buffer for individual species in accordance with the species-specific buffers set forth in Appendix C of the PEA and will occur within 7 days prior to the start of construction to determine nesting status by a qualified biologist. Nest surveys will be accomplished by ground surveys and will support phased construction, with surveys scheduled to be repeated if construction lapses in a construction work area for 7 days between March and July. Access for ground surveys will be subject to property owner permission. If active nests containing eggs or young are found, the biologist will establish a species-specific nest buffer, as defined in Appendix C of the PEA. Where feasible, standard buffers will apply, although the biologist may increase or decrease the standard buffers in accordance with the factors set forth in Appendix C. Nesting pair acclimation to disturbance in areas with regularly occurring human activities will be considered when establishing nest buffers. The established buffers will remain in effect until the young have fledged or the nest is no longer active as confirmed by the biologist. Active nests will be periodically monitored until the biologist has determined that the young have fledged or once construction ends. At the discretion of the biologist, vegetation removal by hand may be allowed within nest buffers or in areas of potential nesting activity. Inactive nests may be removed in accordance with PG&E's approved avian permits. The biologist will have authority to order the cessation of nearby project activities if nesting pairs exhibit signs of disturbance.	PG&E and its contractors to implement measure as defined.	PG&E biologist to coordinate with CDFW regarding establishment of nesting buffers and allowable construction activities within nesting bird exclusion zones. CPUC biological monitor to inspect compliance.	Up to 30 days prior to construction and during construction.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources (cont.)				
Impact 3.4.a (cont.)	<p>APM BIO-7: Prior to the start of construction and in conjunction with APM-BIO 3, a qualified botanist will resurvey mapped populations of Lyngbye's sedge and flag or otherwise mark (e.g., stake, fence) all special-status plant populations documented adjacent to construction work areas for avoidance as feasible. After project activities have been completed at a given worksite, all staking, fencing, or flagging will be removed.</p> <p>If complete avoidance of special-status plant populations is not possible, PG&E will implement the following:</p> <ul style="list-style-type: none"> PG&E will limit driving across special-status plant populations to the greatest extent feasible. Where direct disturbance to topsoil (except excavation) is unavoidable, matting and other protection measures (e.g., rig mats, timber roads, plating, or tracked vehicles) will be used to minimize soil compaction or destruction of underground plant structures. Matting and other protection measures will be approved by a qualified biologist before work begins at that location. For any unavoidable excavation required within Lyngbye's sedge populations, the upper 6 inches of topsoil containing the plant's rhizomes will be stockpiled. PG&E will use the stockpiled topsoil to restore the area after temporary construction has been completed. 	PG&E and its contractors to implement measure as defined.	CPUC biological monitor to inspect compliance.	Immediately prior to and during construction.
	<p>APM BIO-8: Special-Status Amphibian and Reptile Impact Avoidance and Protection. During wet weather or the rainy season, all open holes, pits, and trenches will be protected to ensure that frogs, salamanders, and/or turtles do not become entrapped. Protective fencing, coverings, or ramps will be installed to either prevent wildlife from falling into excavations or to allow for escape. At the end of each work day, steep-walled holes or trenches more than six inches deep will be covered or provided with one or more escape ramps and/or fenced. Open excavations will be inspected each morning, prior to the start of construction activities, to ensure that no wildlife are trapped. Construction personnel will also check underneath vehicles and within materials to be moved (i.e., tires, tracks, pipes, etc.) for the presence of frogs, salamanders, and/or turtles when parked or placed near suitable aquatic or upland dispersal habitat. Any species found will be captured and relocated to an approved location as approved by the resource agencies, if required, and in compliance with any regulatory permits issued for the project</p>	PG&E and its contractors to implement measure as defined.	CPUC biological Monitor to inspect compliance.	During construction.
	<p>APM BIO-9: Implement General Protection Measures for Wetlands and Other Waters. PG&E will implement the following general measures to minimize or avoid impacts on wetlands and other waters:</p> <ul style="list-style-type: none"> Avoid wetlands and other waters to the extent feasible. Construction activities in wetlands will generally occur during the dry season (May 1 to October 15) to the extent feasible. 	PG&E and its contractors to implement measure as defined.	CPUC biological monitor to inspect compliance.	Prior to and during ground disturbing construction activities.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources (cont.)				
Impact 3.4.a (cont.)	<ul style="list-style-type: none"> Ground-based construction activities in tidally influenced wetlands near Buhne Slough will not occur during extreme high tide events that would flood the construction work areas. Where travel across seasonal wetlands is necessary, it will occur during dry conditions, when feasible, to avoid soil compaction or mixing. If travel is required during wet or moist conditions, temporary matting or other protection measure (e.g., rig mats, timber roads, plating, or tracked vehicles [preferably rubber tracked]) will be used to avoid soil compaction or mixing. Matting and other protection measures will be approved by a qualified biologist before construction work at that location begins. Conduct all fueling of vehicles at least 100 feet from wetlands and other water bodies unless approved by a qualified biologist. Set construction work areas back at least 50 feet from streams, creeks, or other water bodies unless approved by a qualified biologist. Implement a Storm Water Pollution Prevention Plan (SWPPP) to minimize construction-related erosion and sediments from entering nearby waterways (see APM WQ-1). 			
	<p>MM BIO-1: Pre-construction Bat Survey. A pre-construction survey for special-status bat (i.e., Townsend's big-eared bat [<i>Corynorhinus townsendii</i>] and pallid bat [<i>Antrozous pallidus</i>]) habitat shall be conducted by a qualified biologist (i.e., who is experienced in the identification of special-status bat habitat) in advance of any tree removal, to identify signs of potential bat habitat and use (e.g., basal hollows in large trees or snags, large cavities or crevices, spaces under loose/exfoliating tree bark, or deep bark fissures). Bat maternity colonies will be avoided during construction. Should potential roosting habitat, or active bat roosts be found in trees to be removed, the following measures shall be implemented</p> <ul style="list-style-type: none"> Tree removal shall occur outside of months of maternity roosting (approximately April 15 to August 15) and winter torpor (approximately October 31 to March 31), to the extent feasible. Trees with maternity roosts shall be avoided during the roosting period (April 15 to August 15). If pre-construction surveys identify suitable bat roosting habitat in a tree planned for removal, a qualified biologist shall be present during tree removal. Trees shall be disturbed only when no rain is occurring or is not forecast to occur for three days and when daytime temperatures are at least 50 degrees Fahrenheit (°F). Trimming and removal of trees containing or suspected to contain roost sites shall be done under supervision of a qualified biologist and implemented over two days. On day one, branches and limbs not containing cavities or fissures in which bats could roost shall be cut using chainsaws. The following day, the remainder of the tree, including branches or limbs containing roost sites shall be removed under the supervision of the biologist, also using chainsaws. 	PG&E and its contractors to implement measure as defined.	CPUC biological monitor to inspect compliance.	Prior to final design and construction.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources (cont.)				
Impact 3.4.b: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service	Implement APMs BIO-1 through BIO-5 (listed under Impact 3.4.a).	PG&E and its contractors to implement measure as defined.	CPUC biological monitor to inspect compliance.	As part of final design and prior to construction.
	MM BIO-2: Habitat Restoration Plan. A qualified ecologist shall prepare and implement a restoration plan with detailed specifications for restoring all temporarily disturbed sensitive natural communities. The plan shall provide for the following: <ul style="list-style-type: none"> • Pre-construction surveys by a qualified biologist of representative impact areas to characterize vegetation present. • Use of locally native, ecologically suitable species for revegetation. • Sanitation measures (e.g., locally sourced cuttings, elimination of container stock, or exclusive use of container plants grown according to plant pathogen best management practices) to prevent the introduction and/or spread of sudden oak death, other plant pathogens, and invasive plants during revegetation. • Monitoring by a qualified biologist up to a period of five years unless performance standards are met earlier, or as specified by state and federal permitting agencies. • Include minimum performance criteria for combined native and naturalized plant cover (50 percent, or equal to or greater than baseline within the monitoring period, or as specified by state and federal permitting agencies); and for maximum invasive plant cover (to return the project back to baseline conditions, or as specified by state and federal permitting agencies). • 			At the conclusion of construction.
Impact 3.4.c: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means	Implement APMs BIO-1 through BIO-5, BIO-9, WQ-1, WQ-2, HAZ-1, and HAZ-2	PG&E and its contractors to implement measure as defined.	CPUC biological monitor to inspect compliance.	As part of final design and prior to construction.
	APM BIO-10: Restore Temporarily Impacted Wetlands and Other Waters. All wetlands and other waters that are temporarily disturbed as a result of project activities will be restored following completion of construction in accordance with any applicable resource agency permits.			At the conclusion of construction.
	APM BIO-11: Compensate for Permanent Impacts on Wetlands and Other Waters in Accordance with Project Permits. PG&E will compensate for permanent impacts on wetlands by providing at least 1:1 mitigation for any unavoidable permanent impacts to wetlands and waters within the coastal zone and in compliance with resource agency			To be completed as part of permitting.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources (cont.)				
Impact 3.4.c (cont.)	permit requirements. Final compensation ratios for impacts to wetlands and waters throughout the project alignment will be based on site-specific information and finalized through discussions with the U.S. Army Corps of Engineers and the North Coast Regional Water Quality Control Board as part of the permitting processes for the project.			
Cultural Resources				
Impact 3.5.b: Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5.	APM CUL-1: Workers Environmental Awareness Training. PG&E will provide environmental awareness training on archaeological resources protection. This training may be administered by the principal cultural resource specialist (CRS) as a stand-alone training or included as part of the overall environmental awareness training as required by the project and will at minimum include: types of cultural resources or fossils that could occur at the project site; types of soils or lithologies in which the cultural resources could be preserved; procedures that should be followed in the event of a cultural resource or human remain discovery; and penalties for disturbing cultural resources.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to any ground-disturbance.
	APM CUL-2: Flag and Avoid Resources (Spiegelberg Homestead Archaeological Deposit). The archaeological deposit at the Spiegelberg Homestead is not in the PAL, but adjacent to it. There are no roadway or land improvements proposed in this location as use of this area is limited to access to a landing zone. Additionally, no pole replacements or installations are proposed at this location. However, to ensure no inadvertent impacts occur to this resource, a qualified archaeologist will establish exclusion flagging or safety fencing around the archaeological site.			
	Mitigation Measure CUL-1: This measure supersedes APM CUL-3(a) and CUL-4. If indigenous or historic-era archaeological resources are encountered during proposed Project development or operation, PG&E and/or its contractors shall immediately cease all construction activity within 100 feet of the find and flag off the area for avoidance. The CPUC and a qualified archaeologist, defined as one meeting the U.S. Secretary of the Interior's Professional Qualifications Standards for Archeology and with expertise in California archaeology, shall be immediately informed of the discovery. The qualified archaeologist shall inspect the discovery and notify the CPUC of their initial assessment. Indigenous archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (midden) containing heat-affected rocks, artifacts, or shellfish remains; stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include building or structure footings and walls, and deposits of metal, glass, and/or ceramic refuse. If the qualified archaeologist determines that the resource is or is potentially indigenous in origin, culturally affiliated California Native American Tribes shall be contacted to assess the find and determine whether it is potentially a tribal cultural resource	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction involving ground-disturbance.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Cultural Resources (cont.)				
Impact 3.5.b (cont.)	<p>If the CPUC determines, based on formal evaluations of California Register-eligibility (at Public Resources Code Section 5024.1[c]) documented by the qualified archaeologist and the culturally affiliated California Native American Tribes (if the resource is indigenous), that the resource is either an historical resource or unique archaeological resource (as defined in CEQA Guidelines Section 15064.5 and Public Resources Code Section 21083.2), or that the resource may qualify as a tribal cultural resource (as defined in Public Resources Code Section 21074), then the resource shall be avoided if feasible. Avoidance means that no activities associated with the proposed Project that may impact cultural resources shall occur within the boundaries of the resource or any defined buffer zones. The CPUC shall determine whether avoidance is feasible considering factors such as the nature of the find, project design, costs, and other considerations. Formal significance evaluations under California Register Criterion 4 shall be guided by research designs developed by a qualified archaeologist .</p> <p>If avoidance of such a resource is not feasible, the CPUC shall consult with a qualified archaeologist, culturally affiliated California Native American Tribes (if the resource is indigenous), and other appropriate interested parties to determine treatment measures to minimize or mitigate any potential impacts to the resource pursuant to Public Resources Code Section 21083.2 and CEQA Guidelines Section 15126.4.</p> <p>If avoidance is not feasible, the CPUC shall prepare and implement an Archaeological (and/or Tribal Cultural) Resources Treatment Plan that outlines the treatment measures for the resource based on the resource's values/significance as detailed in the formal California Register-eligibility evaluation.</p> <p>Any treatment measures implemented shall be documented in a professional-level technical report (e.g., Archaeological Testing Results Report, Archaeological Data Recovery Report, Ethnographic Report, etc.), to be authored by a qualified archaeologist and filed with CHRIS. Construction work at the location of the find may commence upon completion of the approved treatment and authorization by the CPUC. Work may proceed in other parts of the C-APE while the mitigation is being carried out.</p> <p>If the CPUC determines during project implementation that portions of the C-APE may be sensitive for archaeological resources or tribal cultural resources, the CPUC may authorize construction monitoring of these locations by a qualified archaeologist and Native American monitor. Any monitoring by a Native American monitor shall be done under agreements between PG&E or their designated contractor and culturally affiliated California Native American Tribes.</p>			

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Geology, Soils, and Paleontological Resources				
Impact 3.5.c: Disturb any human remains, including those interred outside of formal cemeteries.	Implement APM CUL-1	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction involving ground-disturbance.
	<p>APM CUL-3: Manage Unanticipated Cultural Resources Discoveries.</p> <p>a) Cultural Resources</p> <p>If cultural resources 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 PG&E CRS/archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with PG&E and other appropriate agencies. Work may continue on other portions of the site with the CRS/archaeologist's approval. PG&E will implement the CRS/archaeologist's recommendations for treatment of discovered cultural resources.</p> <p>b) Human Remains</p> <p>In keeping with the provisions provided in 7050.5 CHSC and Public Resource Code 5097.98, in the unlikely event that human remains or suspected human remains are encountered during any project-related activity, PG&E will:</p> <ul style="list-style-type: none"> • Stop all work within 100 feet; • Immediately contact the CRS, who will then notify the county coroner and the CPUC; • Secure the location, but do not touch or remove remains and associated artifacts; • Do not remove associated spoils or pick through them; • Record the location and keep notes of all calls and events; and • Treat the find as confidential and do not publicly disclose the location. <p>If the coroner determines that the remains are Native American, California Health and Safety Code 7050.5 and PRC Section 5097.98 require that the PG&E CRS contact the NAHC within 24 hours. The NAHC, as required by PRC Section 5097.98, will determine and notify the Most Likely Descendant.</p>			

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Geology, Soils, and Paleontological Resources (cont.)				
Impact 3.7.a.iii: Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.	APM GEO-1: Minimization of Construction in Soft or Loose Soils. Where soft or loose soils are encountered during project construction, appropriate measures will be implemented to avoid, accommodate, replace, or improve such soils. Depending on site-specific conditions and permit requirements, these measures may include excavating soft or loose soils and replacing them with engineered backfill materials, or installing matting in temporary work areas.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction activities.
	APM GEO-2: Reduction of Slope Instability during Construction. Existing natural or temporarily constructed slopes affected by construction or operations will be evaluated for stability. Grading plans will be designed to limit the potential for slope instability and minimize the potential for erosion.			
Impact 3.7.a.iv: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.	Implement APM GEO-2 (listed under Impact 3.7.a.iii)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction activities.
Impact 3.7.b: Result in substantial soil erosion or the loss of topsoil.	Implement APM WQ-1	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.
Impact 3.7.c: Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse	Implement APM GEO-1 and GEO-2 (listed under Impact 3.7.a.iii)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction activities.
Impact 3.7.f: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	APM PALEO-1: Unanticipated Potential Paleontological Resource. If significant paleontological resources are discovered during construction activities, the following procedures will be followed: <ul style="list-style-type: none"> Stop work immediately within 100 feet. Contact the designated project inspector and PG&E CRS immediately; 	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction activities involving ground disturbance.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Geology, Soils, and Paleontological Resources (cont.)				
Impact 3.7.f (cont.)	<ul style="list-style-type: none">Protect the site from further impacts, including looting, erosion or other human or natural damage;The PG&E CRS in tandem with CPUC will arrange for a qualified paleontologist to evaluate the discovery. The paleontologist will be responsible for developing the recovery strategy in tandem with PG&E and will lead the recovery effort, which will include establishing recovery standards, preparing specimens for identification and preservation, documentation and reporting, and securing a curation agreement from the approved agency; and,Work may not resume within 100 feet of the find until approval by the paleontologist and PG&E CRS.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Training shall take place prior to and during construction for new staff.
	<p>APM PALEO-2: Worker's Environmental Awareness Training. Moderate and potentially high sensitivity formations are identified within the PAL; therefore, PG&E will provide environmental awareness training on paleontological resources protection. This training may be administered as a stand- alone training or included as part of the overall environmental awareness training as required by the project. The training will include, at minimum, the following:</p> <ul style="list-style-type: none">The types of fossils that could occur at the project site.The types of lithologies in which the fossils could be preserved.The procedures that should be taken in the event of a fossil discovery.Penalties for disturbing paleontological resources.			
Greenhouse Gas Emissions				
Impact 3.8.a: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	<p>APM GHG-1: Minimize GHG Emissions.</p> <ul style="list-style-type: none">Maintain construction equipment in proper working conditions in accordance with PG&E standards.Minimize unnecessary construction vehicle idling time. The project will apply a “common sense” approach to vehicle use, so that idling is reduced as far as possible below the maximum of 5 consecutive minutes allowed by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off.Maintain construction equipment in proper working conditions in accordance with PG&E standards.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during all phases of construction.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Hazards and Hazardous Materials (cont.)				
Impact 3.8.a (cont.)	<ul style="list-style-type: none"> Minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible. Portable diesel-fueled construction equipment with engines of 50 horsepower or larger and manufactured in 2000 or later will be registered under the CARB Statewide Portable Equipment Registration Program. Minimize welding and cutting by using compression of mechanical applications where practical and within standards. Encourage the recycling of construction waste where feasible 			
Impact 3.9.a: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	<p>APM HAZ-1: Hazardous-Substance Control and Emergency Response. PG&E will implement its hazardous substance control and emergency response procedures to ensure the safety of the public and site workers during construction. The procedures identify methods and techniques to minimize the exposure of the public and site workers to potentially hazardous materials during all phases of project construction through operation. They address worker training appropriate to the site worker's role in hazardous substance control and emergency response. The procedures also require implementing appropriate control methods and approved containment and spill-control practices for construction and materials stored on site. If necessary to store chemicals on site, they will be managed in accordance with all applicable regulations. Material safety data sheets will be maintained and kept available.</p> <p>No known soil contamination was identified within the project site. In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are unearthed during site grading or excavation activities, the excavated soil will be tested, and if contaminated above hazardous waste levels, will be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil will require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations.</p> <p>All hazardous materials and hazardous wastes will be handled, stored, and disposed of in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. The hazardous substance control and emergency response procedures include, but are not limited to, the following:</p> <ul style="list-style-type: none"> Proper disposal of potentially contaminated soils. Establishing site-specific buffers for construction vehicles and equipment located near sensitive resources. Emergency response and reporting procedures to address hazardous material spills. 	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Hazards and Hazardous Materials (cont.)				
Impact 3.9.a (cont.)	<ul style="list-style-type: none"> Stopping work at that location and contacting the County Fire Department Hazardous Materials Unit immediately if visual contamination or chemical odors are detected. Work will be resumed at this location after any necessary consultation and approval by the Hazardous Materials Unit. <p>PG&E will complete a standard Emergency Action Plan Form as part of project tailboard meeting. The purpose of the form is to gather emergency contacts numbers, first aid location, work site location, and tailboard information.</p>	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.
	<p>APM HAZ-2: Worker Environmental Awareness Program (WEAP) for Health, Safety, and Environment. The WEAP will include the following components related to hazards and hazardous materials:</p> <ul style="list-style-type: none"> PG&E health, safety, and environmental expectations and management structure. Applicable regulations. Summary of hazardous substances and materials that may be handled and/or to which workers may be exposed. Summary of the primary workplace hazards to which workers may be exposed. Overview of the measures identified in APM HAZ-1. Overview of the controls identified in the Stormwater Pollution Prevention Plan under APM HYDRO-1. <p>This measure will be coordinated with worker training required under APM BIO-1 and APM WQ-2.</p>	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction and ongoing for new staff..
Impact 3.9.b: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Implement APMs HAZ-1 and HAZ-2 (listed under Impact 3.9.a)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction and ongoing for new staff..

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Hazards and Hazardous Materials (cont.)				
Impact 3.9.c: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.	Implement APMs HAZ-1 and HAZ-2 (listed under Impact 3.9.a)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction and ongoing for new staff..
Impact 3.9.e: Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area	APM TT-2: Air Traffic Control. PG&E will implement the following protocols related to helicopter use: <ul style="list-style-type: none"> PG&E will comply with all applicable FAA regulations regarding air traffic; PG&E will prepare a Helicopter Use Plan; Helicopter operators will coordinate all project helicopter operations with local airports before and during project construction; and PG&E will comply with FAA requirements for helicopter activities in residential areas that will reduce safety risks, an if necessary coordinate with residents that may need to temporarily evacuate their properties. 	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.
Impact 3.9.f: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Implement APMs TT-1 and APM TT-3 (see Impact 3.17a, and Impact 3.17.d) listed under Transportation.			
Impact 3.9.g: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.	Implement Mitigation Measure WF-1, WF-2, and WF-3, (see Impact 3.20.a and 3.20.b) listed under Wildfire. APM HAZ-3: Fire Risk Management. PG&E will follow its standard fire risk management procedures, including safe work practices, work permit programs, training, and fire response. Project personnel will be directed to park away from dry vegetation. During fire season, all motorized equipment driving off paved or maintained gravel/dirt roads will have federal- or state-approved spark arrestors. All off-road vehicles will be equipped with a shovel and backpack pump filled with water and all fuel trucks will carry a large fire extinguisher with minimum rating of B:C.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Hydrology and Water Quality				
Impact 3.10.a: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	<p>Implement APM HAZ-1 (see Impact 3.9.a) and APM BIO-2 (see Impact 3.4.a), listed under Hazards and Hazardous Materials and Biological Resources, respectively.</p> <p>APM WQ-1: Development and Implementation of a SWPPP. Following project approval, PG&E will prepare and implement a SWPPP to minimize construction impacts on surface water and groundwater quality. The SWPPP will be designed specifically for the hydrologic setting of the proposed project (e.g., surface topography, etc.). The SWPPP will include procedures and standards to stabilize graded areas, reduce erosion, avoid release of hazardous materials and sediment to surface waters, and manage dewatering effluents. The SWPPP will identify BMPs and erosion and sediment control measures, such as straw wattles, water bars, covers, silt fences, storm drain inlet protection, mud trackout controls, and sensitive area access restrictions (e.g., flagging) that will be installed before the onset of winter rains or anticipated storm events to minimize impacts on surface water and groundwater.</p>	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.
Impact 3.10.b: Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Implement APM WQ-1 (listed under Impact 3.10.a)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.
Impact 3.10.c.i: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site.	Implement APM WQ-1 (listed under Impact 3.10.a)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Hydrology and Water Quality (cont.)				
Impact 3.10.c.iii: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	Implement APM WQ-1 (listed under Impact 3.10.a)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.
Land Use and Planning				
No mitigation required.				
Mineral Resources				
No mitigation required.				
Noise and Vibration				
Impact 3.13.a: Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	APM NOI-3: Notify Sensitive Receptors of Helicopter Use. Sensitive receptors within 300 feet of areas where helicopters will be used for construction will be notified by mail, personal visit, door hanger, or email at least 7 days prior to beginning helicopter activities. Notification will include posting signs in appropriate locations with a contact number to call with questions and concerns.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	At least 7 days prior to helicopter activities.
	Mitigation Measure NOI-1a: Adherence to City of Eureka Construction Hour Restrictions. Construction activities within the City of Eureka shall be restricted to the daytime hours between 7:00 a.m. and 7:00 p.m., except as allowed pursuant to Mitigation Measure NOI-1b.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Noise and Vibration (cont.)				
Impact 3.13.a (cont.)	<p>Mitigation Measure NOI-1b: Nighttime Construction. In the event construction would be required to occur outside the hours specified in Mitigation Measure NOI-1a and within 500 feet of sensitive receptors, PG&E and/or its contractors shall implement the following measures to reduce any potential nighttime noise impacts.</p> <ul style="list-style-type: none"> Plan construction activities to minimize the amount of nighttime construction. When nighttime construction activities take place within 200 feet of noise sensitive receptors, use portable construction noise barriers, such as paneled noise shields, barriers, enclosures, or sound curtains adjacent to or around loud stationary equipment. Noise control shields shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield. Offer temporary relocation of residents within 200 feet of nighttime construction activities that would occur after 10:00 p.m. The notification requirements in APM NOI-2 shall be extended to include residences within 500 feet of planned nighttime construction activities. All residents within 500 feet of the proposed nighttime construction site(s) shall be notified at least 7 days in advance by mail, personal visit, door hanger, or e-mail and informed of the expected work schedule. 	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.
	<p>Mitigation Measure NOI-1c: Construction Noise Management Plan. PG&E and/or its contractors shall implement the measures identified below to ensure that construction noise levels are reduced to 90 dBA Leq or less at sensitive receptors located within 100 feet.</p> <ol style="list-style-type: none"> Comply with manufacturer's muffler requirements on all construction equipment engines and ensure exhaust mufflers are in good condition; Turn off construction equipment when not in use, where applicable; Locate stationary equipment, construction staging areas, helicopter landing zones, and construction material areas as far as practical from sensitive receptors; Include noise control requirements for construction equipment and tools in specifications provided to construction contractors to the maximum extent practicable, including performing all work in a manner that minimizes noise; using equipment with effective mufflers; undertaking the noisiest activities during times of least disturbance to surrounding residents and occupants; and selecting haul routes that avoid residential areas; PG&E shall provide notice by mail at least 1 week prior to construction activities to all sensitive receptors and residences within 500 feet of construction sites, staging 	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
	yards, and access roads, and within 1,000 feet of helicopter landing zones and flight paths. PG&E shall also post notices in public areas, including recreational use areas,			
Noise and Vibration (cont.)				
Impact 3.13.a (cont.)	<p>6. within 500 feet of the Project alignment and construction work areas. The announcement shall state approximately where and when construction will occur in the area. For areas that would be exposed to helicopter noise, the announcement shall provide approximate details on the schedule of the dates, times, and duration of helicopter activities. Notices shall provide tips on reducing noise intrusion, for example, by closing windows facing the planned construction. PG&E shall identify and provide a public liaison before and during construction to respond to concerns of neighboring receptors, including residents, about construction noise disturbance. PG&E shall also establish a toll-free telephone number for receiving questions or complaints during construction and develop procedures for responding to callers. Procedures for reaching the public liaison officer via telephone or in person shall be included in the above notices and also posted conspicuously at the construction site(s). PG&E shall address all complaints within 1 week of when the complaint is filed. PG&E shall provide monthly reports with records of complaints and responses to the CPUC. These reports shall be provided to the CPUC within 15 days of the end of the month.</p> <p>7. When construction activities take place within 100 feet of noise sensitive areas, use portable construction noise barriers such as paneled noise shields, barriers, or enclosures, or sound curtains adjacent to or around loud stationary equipment. Noise control shields shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield. Noise control shields with a minimum performance rating of STC-25 and Noise Reduction Coefficient (NRC) of 0.75 are capable of attenuating noise levels by up to 15 dBA.</p> <p>8. Route all construction traffic via designated truck routes where possible and prohibit construction related heavy truck traffic in residential areas where feasible.</p>			
Public Services				
Impact 3.15.a.i: Fire protection.	Implement APM HAZ-3 (see Impact 3.9.g), APM WF-3 (see Impact 3.20.b), and APM TT-3 (see Impact 3.17.d).	PG&E and its contractors to implement measure as defined.	CPUC to inspect compliance.	At least 24 hours prior to implementing any road or lane closures.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Recreation				
Impact 3.16.a: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	APM REC-1: Coordination and Signage. PG&E will coordinate with the operators of the Redwood Fields Ballpark, Redwood Acres Fairgrounds, and McKay Community Forest during project construction activities to minimize any potential construction impacts from the project. Signage notifying of construction activities will be posted at these recreational facilities at least one week in advance of construction.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Signage to be posted at least one week prior to construction.
Transportation				
Impact 3.17.a: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.	APM TT-1: Temporary Traffic Controls. PG&E will obtain necessary transportation and encroachment permits from Caltrans and the local jurisdictions, as required, including those related to State Route crossings and the transport of oversized loads and certain materials, and will comply with permit requirements designed to prevent excessive congestion or traffic hazards during construction. PG&E will develop road and lane closures or width reduction or traffic diversion plans as required by the encroachment permits. Construction activities that are in, along, or cross local roadways will follow best management practices and local jurisdictional encroachment permit requirements, which may include traffic controls such as signs, cones, and flaggers to minimize impacts on traffic and transportation in the Project area. PG&E will coordinate with ETS regarding the schedule and scope of construction activities that could interfere with bus routes crossed by the Project alignment and will coordinate temporary relocation of bus stops if necessary.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to applicable phases of construction involving traffic control.
Impact 3.17.c: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	Implement APM TT-1 (see Impact 3.17.a)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to applicable phases of construction involving traffic control.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Transportation (cont.)				
Impact 3.17.d: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Implement APM TT-1 (see Impact 3.17.a)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to applicable phases of construction involving traffic control.
	APM TT-3: Coordination Road Closures with Emergency Service Providers and School Districts. At least 24 hours prior to implementing any road or lane closure, PG&E will coordinate with applicable emergency service providers and school districts in the Project vicinity. PG&E will provide information regarding the road or lanes to be closed, the anticipated date, time, and duration of closures, and a contact telephone number.			Construction. At least 24 hours prior to implementing any road or lane closures.
Tribal Cultural Resources				
Impact 3.18.a.i: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	Implement APM CUL-1and Mitigation Measure CUL-1 (see Impact 3.5.b and 3.5.c)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction involving ground-disturbance.
Impact 3.18.a.ii: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Implement APM CUL-1and Mitigation Measure CUL-1 (see Impact 3.5.b and 3.5.c)	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction involving ground-disturbance.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Utilities and Service Systems				
Impact 3.19.a: Require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	Implement APM GEO-2 (see Impact 3.7.a.iii) and APM WQ-1 (see Impact 3.10.a) which can be found under Geology and Soils, and Hydrology and Water Quality, respectively.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.
Wildfire				
Impact 3.20.a: Substantially impair an adopted emergency response plan or emergency evacuation plan	Implement APMs TT-1 (see impact 3.17.a) and TT-3 (see Impact 3.17.d), listed under Transportation.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction
	APM WF-1: Smoking and Fire Rules. Smoking will not be permitted on site, except in barren areas that measures a minimum of 20 feet in diameter and are cleared to mineral soil. Under no circumstances will smoking be permitted during the fire season (approximately July through October) while employees are operating equipment, or while walking or working in grass and woodlands.			During all phases of construction and operation of the project.
	APM WF-2: Carry Emergency Fire Suppression Equipment. PG&E construction crew trucks and large equipment shall have, at a minimum, a standard roundpoint shovel and a fire extinguisher. If construction activities likely to cause sparks (e.g., welding, grinding, or grading in rocky terrain) are conducted, emergency fire tool boxes shall be readily available to crews. The emergency fire tool boxes shall contain fire-fighting items such as shovels, axes, and water.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction and operation of the project.

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E HUMBOLDT BAY- HUMBOLDT #1 60 kV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Wildfire (cont.)				
Impact 3.20.b: Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	<p>APM WF-3: Construction Fire Prevention Plan. PG&E shall prepare a Construction Fire Prevention Plan consistent with the measures identified in APM HAZ-3, Fire Risk Management, that addresses procedures for fire prevention at active construction sites. The Construction Fire Prevention Plan shall include requirements for carrying emergency fire suppression equipment, conducting "tailgate meetings" that cover fire safety discussions, restricting smoking, idling vehicles, and restricting construction during red flag warnings. The Construction Fire Prevention Plan shall address the following fire risk reduction measures:</p> <ul style="list-style-type: none"> • Training and briefing all personnel working on the project in fire prevention and suppression methods. • Conducting a fire prevention discussion at each morning's safety meeting. • Storage of prescribed fire tools and backpack pumps with water within 50 feet of work activities. • Assigning personnel to conduct a "fire watch" or "fire patrol" to ensure that risk mitigation and fire preparedness measures are implemented, immediate detection of a fire, and to coordinate with emergency response personnel in the event of a fire. <p>The Construction Fire Prevention Plan will be submitted to the CPUC for review at least 30 days prior to construction</p>	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Plan shall be prepared and submitted to the CPUC for review at least 30-days prior to construction.
Impact 3.20.d: Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes	Implement APMs WF-1, WF-2, WF-3 (see Impact 3.20.a, 3.20.b) and HAZ-3 (see Impact 3.9.g).	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	

Appendix A

Mailing List



**TABLE A-1
PUBLIC LIBRARIES**

Name	Address
Humboldt County Library	1313 3rd St, Eureka, CA 95501

**TABLE A-2
AGENCIES AND APPLICANT**

Contact Name and Title	Agency/Organization	Address
Lead Agency		
John Edward Forsythe, Project Manager	California Public Utilities Commission	300 Capital Mall, Suite 518 Sacramento, CA 95814
Applicant		
Jillian Blanchard	Attorney at Law	1101 Marina Village Parkway, Suite #201 Alameda, CA 94501
Erin Rice, Project Manager	Pacific Gas & Electric	2730 Gateway Oaks Drive, Rm 220, #235B Sacramento, CA 95833
Janet Liver, Project Manager	ERM	114 Sansome Street, Suite 750 San Francisco, CA 94104
Federal Agencies		
San Francisco District, Eureka Field Office	U.S Army Corps of Engineers	601 Startare Drive, Box 14 Eureka, CA 95501
Jennifer L. Norris, Deputy Field Supervisor, U.S Fish and Wildlife Service, Arcata Fish and Wildlife Office	U.S Fish and Wildlife Service	1655 Heindon Drive Arcata CA 95521-4573
William G., Bell, Principal Operations Inspector	Federal Aviation Administration	1420 Harbor Bay Parkway Alameda, CA 94502
State Agencies		
Tina Bartlett, Regional Manager	California Department of Fish and Wildlife (Northern Region-Region 1)	601 Locust St. Redding, CA 96001
Julie East, Environmental Coordinator	California Department of Transportation (District 1)	1656 Union Street Eureka, CA 95501
Mike Tollstrup	California Air Resources Board	1001 I Street, PTSDAQTPB Sacramento, CA 95814
Bob Merrill, North Coast District Manager	California Coastal Commission	1385 8 th Street #130 Arcata, CA, 95521
Eric Knight, Environmental Office Manager	California Energy Commission	1516 9th Street MS-40 Sacramento, CA 95814
Frank Roddy	State Water Resources Control Board	P.O. Box 806 (1001 "I" Street) Sacramento, CA 95812-4025
	State Clearinghouse	State Clearinghouse P.O. Box 3044 Sacramento, CA 95812-3044

TABLE A-2 (CONTINUED)
AGENCIES AND APPLICANT

Contact Name and Title	Agency/Organization	Address
Local Agencies		
Kelly Sanders, Humboldt County Clerk	County of Humboldt	825 5 th Street, 5 th Floor Eureka, CA 95501
Kristen Goetz, Senior Planner	County of Humboldt	531 K Street Eureka, CA 95501
Steve Werner, Supervising Planner	City of Eureka	825 5 th Street, Eureka, CA 95501
Jason L. Davis, Division Manager & Deputy Air Pollution Control Officer	North Coast Unified Air Quality Management District	707 L Street Eureka, CA 95501
Matthias St. John, Executive Officer	North Coast Regional Water Quality Control Board	5550 Skylane Blvd Ste A Santa Rosa CA 95403
Fred Van Vleck, Superintendent	Eureka Unified School District	2100 J Street Eureka, CA 95501

TABLE A-3
300' NOTIFICATION LIST

1752 Eastwood Dr , Eureka, CA	1301 5th Ave #2700 , Seattle, WA
1752 Eastwood Dr , Eureka, CA	132 Forest View Ct , Crescent City, CA
1752 Eastwood Dr , Eureka, CA	1325 Grand Ave , San Rafael, CA
P.O. Box 214, Cutten, CA	139 Joscolo Vw , Clayton, CA
Po Box 43, Fields Landing, CA	1465 Stallion Ct , Mckinleyville, CA
10 Barscape Ln , Eureka, CA	149 Redmond Rd , Eureka, CA
101 Higgins St , Eureka, CA	1500 Glendale Dr , Mckinleyville, CA
1015 Vista Dr , Eureka, CA	1520 Golden West Ct , Eureka, CA
1015 Vista Dr , Eureka, CA	1565 Gates St , Eureka, CA
1035 Vista Dr , Eureka, CA	1580 Myrtle Ave , Eureka, CA
104 thoreau Ln , Folsom, CA	1589 Myrtle Ave, Eureka, CA
1050 Vista Dr , Eureka, CA	160 Archgate Ct , Clarksville, TN
1055 Vista Dr , Eureka, CA	1608 Hayes St , Eureka, CA
106 Higgins St , Eureka, CA	1650 Hemlock St , Eureka, CA
1085 Delaware St , Imperial Beach, CA	1653 Myrtle Ave, Eureka, CA
1091 Vista Dr , Eureka, CA	1653 Myrtle Ave, Eureka, CA
1091 Vista Dr , Eureka, CA	1653 Myrtle Ave , Eureka, CA
110 Higgins St , Eureka, CA	1720 Snow View Pl , Eureka, CA
1100 Vista Dr , Eureka, CA	1730 Monnon Rd , Grants Pass, OR
11000 W End Rd , Arcata, CA	17367 Meadow View Dr , Hidden Valley Lake, CA
1101 Vista Dr , Eureka, CA	17367 Meadow View Dr , Hidden Valley Lake, CA
1111 Vista Dr , Eureka, CA	180 Blue Spruce Dr , Eureka, CA
1121 Vista Dr , Eureka, CA	1805 Sunset Dr , Eureka, CA
1123 Freshwater Rd , Eureka, CA	1812 Hodgson St , Eureka, CA
1123 Freshwater Rd , Eureka, CA	1837 O St , Eureka, CA
1131 Vista Dr , Eureka, CA	1840 Myrtle Ave , Eureka, CA
1146 Vista Dr , Eureka, CA	1846 Broadway , Eureka, CA
115 Redmond Rd , Eureka, CA	18470 Wildridge Rd , Cottonwood, CA
115 Redmond Rd , Eureka, CA	1900 Roth Ct , Eureka, CA
1154 Vista Dr , Eureka, CA	1909 Roth Ct , Eureka, CA
1164 Vista Dr , Eureka, CA	1919 Roth Ct , Eureka, CA
11902 Sandy River Ct , Bakersfield, CA	1919 Roth Ct , Eureka, CA
1200 Douglas Way , South San Francisco, CA	1919 Roth Ct , Eureka, CA
125 Higgins St , Eureka, CA	1922 Roth Ct , Eureka, CA
129 Higgins St , Eureka, CA	1939 Roth Ct , Eureka, CA

TABLE A-3 (CONTINUED)
300' NOTIFICATION LIST

195 Kluck Ln , Eureka, CA	2071 Mckeown Ln , Eureka, CA
195 Kluck Ln , Eureka, CA	2072 Redwood St , Eureka, CA
195 Kluck Ln , Eureka, CA	2072 Redwood St , Eureka, CA
195 Kluck Ln , Eureka, CA	2085 Mckeown Ln , Eureka, CA
1950 Roth Ct , Eureka, CA	2100 J Street, Eureka, CA
1955 Roth Ct , Eureka, CA	2104 Redwood St , Eureka, CA
196 Higgins St , Eureka, CA	2107 Harrison Ave , Eureka, CA
1966 Roth Ct , Eureka, CA	2112 Hemlock St , Eureka, CA
1972 Zehndner Ave , Arcata, CA	2121 Meadowwood Ln , Eureka, CA
1979 Roth Ct , Eureka, CA	214 Martin Dr , Aptos, CA
19880 Holstein Ln , Redding, CA	2150 Hemlock St , Eureka, CA
1990 11th St , Arcata, CA	217 Escott St , Big Rapids, MI
1991 Roth Ct , Eureka, CA	2170 Hemlock St , Eureka, CA
1994 Roth Ct , Eureka, CA	2177 Meadowwood Ln , Eureka, CA
1997 Roth Ct , Eureka, CA	2192 Hemlock St , Eureka, CA
20 Silver Tip Ln , Eureka, CA	2196 Wrigley Rd , Eureka, CA
200 Higgins St , Eureka, CA	2202 Redwood St , Eureka, CA
2005 I St , Eureka, CA	2207 Redwood St , Eureka, CA
2015 Redwood St , Eureka, CA	2207 Redwood St , Eureka, CA
2021 Mckeown Ln , Eureka, CA	2207 Redwood St , Eureka, CA
2024 Mckeown Ln , Eureka, CA	2207 Redwood St , Eureka, CA
2025 Adkins Ln , Eureka, CA	2212 Redwood St , Eureka, CA
2025 Redwood St , Eureka, CA	2218 Hemlock St , Eureka, CA
2031 Eich Rd , Eureka, CA	222 Fredricson Ln , Eureka, CA
2035 Mckeown Ln , Eureka, CA	2221 Wrigley Rd , Eureka, CA
2035 Redwood St , Eureka, CA	2224 Redwood St , Eureka, CA
2044 Mckeown Ln , Eureka, CA	2231 Redwood St , Eureka, CA
2045 Redwood St , Eureka, CA	2245 Redwood St , Eureka, CA
2047 Mckeown Ln , Eureka, CA	2246 Redwood St , Eureka, CA
2050 Redwood St , Eureka, CA	226 Buhne St A , Eureka, CA
2050 Redwood St , Eureka, CA	2266 Redwood St , Eureka, CA
2050 Redwood St , Eureka, CA	2292 Parkwood Blvd , Eureka, CA
2054 Mckeown Ln , Eureka, CA	2304 H St , Eureka, CA
2057 Mckeown Ln , Eureka, CA	2348 Redwood St , Eureka, CA
207 Fredricson Ln , Eureka, CA	2357 Redwood St , Eureka, CA

TABLE A-3
300' NOTIFICATION LIST

2359 Redwood St , Eureka, CA	265 Higgins St , Eureka, CA
236 Higgins St , Eureka, CA	266 Bacchetti Dr , Eureka, CA
2360 Redwood St , Eureka, CA	267 Bacchetti Dr , Eureka, CA
2362 Redwood St , Eureka, CA	27 Se Benaiah Cir , Bend, OR
2369 Redwood St , Eureka, CA	2703 Dias Ln , Eureka, CA
2402 Myrtle Ave , Eureka, CA	271 Bacchetti Dr , Eureka, CA
2409 Redwood St , Eureka, CA	272 Bacchetti Dr , Eureka, CA
241 Higgins St , Eureka, CA	2720 M St , Eureka, CA
2414 D St , Eureka, CA	2720 M St , Eureka, CA
242 Higgins St , Eureka, CA	2720 M St , Eureka, CA
2429 Redwood St , Eureka, CA	2720 M St , Eureka, CA
2437 Russ St , Eureka, CA	2735 Pleasant Ave , Eureka, CA
2440 I St , Eureka, CA	276 Artino St , Eureka, CA
2440 Redwood St , Eureka, CA	276 River Rock Rd , Lewiston, CA
2442 Emerald Ct , Eureka, CA	2765 Rancho Vista Dr , Eureka, CA
2445 Redwood St , Eureka, CA	2769 Dias Ln , Eureka, CA
245 Higgins St , Eureka, CA	2769 Dias Ln , Eureka, CA
2460 Redwood St , Eureka, CA	277 Bacchetti Dr , Eureka, CA
2465 Redwood St , Eureka, CA	277 Higgins St , Eureka, CA
247 Higgins St C , Eureka, CA	2775 Pleasant Ave, Eureka, CA
2475 Redwood St , Eureka, CA	2775 Pleasant Ave , Eureka, CA
248 Huntoon St , Eureka, CA	280 Higgins St , Eureka, CA
2480 Redwood St , Eureka, CA	2800 Rancho Vista Dr , Eureka, CA
2484 Freshwater Rd , Eureka, CA	2807 Mitchell Heights Dr , Eureka, CA
2485 Redwood St , Eureka, CA	281 Bacchetti Dr , Eureka, CA
249 Higgins St , Eureka, CA	2832 Broadway , Eureka, CA
250 Higgins St , Eureka, CA	2839 F St , Eureka, CA
2501 Union St , Eureka, CA	2851 Main St , Eureka, CA
2508 Fern St , Eureka, CA	2855 Rancho Vista Dr , Eureka, CA
2532 Fern St , Eureka, CA	2890 Main St , Eureka, CA
255 Bacchetti Dr , Eureka, CA	2910 Mitchell Heights Dr , Eureka, CA
255 Higgins St , Eureka, CA	2930 Main St , Eureka, CA
257 Spruce St , Eureka, CA	2930 Main St , Eureka, CA
260 Bacchetti Dr , Eureka, CA	2949 Main St , Eureka, CA
2620 Greenwood Heights Dr , Kneeland, CA	295 Bacchetti Ct , Eureka, CA

TABLE A-3 (CONTINUED)
300' NOTIFICATION LIST

2950 E St C , Eureka, CA	3124 Mitchell Heights Dr , Eureka, CA
2950 E St C , Eureka, CA	3127 Mitchell Heights Dr , Eureka, CA
2950 E St C , Eureka, CA	3127 Mitchell Heights Dr , Eureka, CA
2950 E St C , Eureka, CA	315 P St , Eureka, CA
2950 E St C , Eureka, CA	3150 Harris St , Eureka, CA
2950 E St C , Eureka, CA	3150 Mitchell Heights Dr , Eureka, CA
2950 E St C , Eureka, CA	317 W Cedar St , Eureka, CA
2950 E St C , Eureka, CA	3173 Alora Ln , Eureka, CA
2950 E St C , Eureka, CA	319 Higgins St , Eureka, CA
2950 E St C , Eureka, CA	320 Higgins St , Eureka, CA
2950 E St C , Eureka, CA	321 Bacchetti Ct , Eureka, CA
2955 Anita St , Redding, CA	322 Oak St , Eureka, CA
296 Artino St , Eureka, CA	3225 Longfellow Blvd , Saint Louis, MO
2969 Main St , Eureka, CA	3241 Mitchell Heights Dr , Eureka, CA
297 Higgins St , Eureka, CA	3253 Mitchell Heights Dr , Eureka, CA
297 Valley Ave , Fortuna, CA	3260 Mitchell Heights Dr , Eureka, CA
2974 Main St , Eureka, CA	3277 Mitchell Heights Dr , Eureka, CA
2990 Woodland Ct , Arcata, CA	3308 Mitchell Rd , Eureka, CA
300 Higgins St , Eureka, CA	3308 Mitchell Rd , Eureka, CA
3002 Main St , Eureka, CA	3316 Mitchell Heights Dr , Eureka, CA
3011 Main St , Eureka, CA	3327 Timber Falls Ct, Eureka, CA
3045 Main St , Eureka, CA	333 Bacchetti Ct , Eureka, CA
3045 Main St , Eureka, CA	3332 Summer St , Eureka, CA
305 Gatliff Ave , Eureka, CA	3333 Lucia Ave , Eureka, CA
3050 Main St , Eureka, CA	3342 K St , Eureka, CA
3065 Mitchell Heights Dr , Eureka, CA	3342 K St , Eureka, CA
3076 Main St , Eureka, CA	3342 K St , Eureka, CA
3088 Main St , Eureka, CA	3350 Lucia Ave , Eureka, CA
3088 Mitchell Heights Dr , Eureka, CA	337 Bacchetti Ct , Eureka, CA
310 Higgins St , Eureka, CA	3370 H St , Eureka, CA
3100 Main St , Eureka, CA	3385 Lucia Ave , Eureka, CA
3105 Elk St , Eureka, CA	3402 Rocky Ln , Hydesville, CA
311 Bacchetti Ct , Eureka, CA	3414 O St , Eureka, CA
311 Oak St , Eureka, CA	3437 L St , Eureka, CA
3115 Elk St , Eureka, CA	345 Bacchetti Ct , Eureka, CA

TABLE A-3
300' NOTIFICATION LIST

350 Bacchetti Ct , Eureka, CA	3845 G St , Eureka, CA
3575 Agate St , Eugene, OR	3846 F St , Eureka, CA
36055 Asquith Pl , Fremont, CA	3847 H St , Eureka, CA
3620 Williams St , Eureka, CA	3848 E St , Eureka, CA
366 Bacchetti Ct , Eureka, CA	3848 Lissa Dr , Eureka, CA
3660 O St , Eureka, CA	3849 Lissa Dr , Eureka, CA
3660 O St , Eureka, CA	3850 G St , Eureka, CA
3702 O St , Eureka, CA	3850 H St , Eureka, CA
3702 O St , Eureka, CA	3850 H St , Eureka, CA
3702 O St , Eureka, CA	3851 California St , Eureka, CA
374 Bacchetti Ct , Eureka, CA	3851 D St , Eureka, CA
3750 Harris St, Eureka, CA	3851 E St , Eureka, CA
3750 Harris St , Eureka, CA	3851 F St , Eureka, CA
3750 Harris St , Eureka, CA	3851 H St , Eureka, CA
3760 J St , Eureka, CA	3852 G St , Eureka, CA
3760 J St , Eureka, CA	3854 D St , Eureka, CA
377 Higgins St , Eureka, CA	3854 D St , Eureka, CA
380 Artino St , Eureka, CA	3854 D St , Eureka, CA
380 Higgins St , Eureka, CA	3856 G St , Eureka, CA
38181 Hastings Ct , Fremont, CA	3857 G St , Eureka, CA
3826 H St , Eureka, CA	3857 Walnut Dr , Eureka, CA
3828 E St , Eureka, CA	3857 Walnut Dr , Eureka, CA
3835 Lissa Dr , Eureka, CA	3860 E St , Eureka, CA
3836 Lissa Dr , Eureka, CA	3860 F St , Eureka, CA
3837 H St , Eureka, CA	3861 D St , Eureka, CA
3838 H St , Eureka, CA	3861 E St , Eureka, CA
3839 E St , Eureka, CA	3861 F St , Eureka, CA
3839 Walnut Dr , Eureka, CA	3863 D St , Eureka, CA
3840 F St , Eureka, CA	3864 D St , Eureka, CA
3841 D St , Eureka, CA	3864 D St , Eureka, CA
3841 Dolbeer St , Eureka, CA	3868 Walnut Dr , Eureka, CA
3841 F St , Eureka, CA	3870 E St , Eureka, CA
3841 G St , Eureka, CA	3870 F St , Eureka, CA
3841 Lissa Dr , Eureka, CA	3871 E St , Eureka, CA
3842 Lissa Dr , Eureka, CA	3871 F St , Eureka, CA

TABLE A-3 (CONTINUED)
300' NOTIFICATION LIST

3873 G St , Eureka, CA	3913 Bryeld Ct , Eureka, CA
3876 G St , Eureka, CA	3915 Brogan Way , Eureka, CA
3878 Walnut Dr , Eureka, CA	3915 Davis Ct , Eureka, CA
3879 H St , Eureka, CA	3916 Bryeld Ct , Eureka, CA
3880 E St , Eureka, CA	3917 F St , Eureka, CA
3880 F St , Eureka, CA	3918 G St , Eureka, CA
3880 G St , Eureka, CA	3919 Cedar St , Eureka, CA
3880 H St , Eureka, CA	3919 Walnut Dr , Eureka, CA
3881 D St , Eureka, CA	3920 Cedar St , Eureka, CA
3881 F St , Eureka, CA	3920 E St , Eureka, CA
3883 E St , Eureka, CA	3920 F St , Eureka, CA
3888 D St , Eureka, CA	3921 E St , Eureka, CA
3888 G St , Eureka, CA	3921 Walnut Dr , Eureka, CA
3889 F St , Eureka, CA	3922 Bryeld Ct , Eureka, CA
3890 D St , Eureka, CA	3922 Walnut Dr , Eureka, CA
3890 E St , Eureka, CA	3923 Bryeld Ct , Eureka, CA
3890 H St , Eureka, CA	3923 D St , Eureka, CA
3890 H St , Eureka, CA	3925 Brogan Way , Eureka, CA
3890 Walnut Dr , Eureka, CA	3925 Campton Rd , Eureka, CA
3894 F St , Eureka, CA	3925 Campton Rd , Eureka, CA
3895 Walnut Dr , Eureka, CA	3925 Campton Rd , Eureka, CA
3901 G Street, Eureka, CA	3925 Cedar St , Eureka, CA
3902 G St , Eureka, CA	3925 Cross Ln , Eureka, CA
3903 Bryeld Ct , Eureka, CA	3925 Davis Ct , Eureka, CA
3905 Brogan Way , Eureka, CA	3925 F St , Eureka, CA
3905 Davis Ct , Eureka, CA	3926 Bryeld Ct , Eureka, CA
3905 F St , Eureka, CA	3926 Bryeld Ct , Eureka, CA
3906 Bryeld Ct , Eureka, CA	3926 Cedar St , Eureka, CA
3907 Cedar St , Eureka, CA	3927 Cross Ln , Eureka, CA
3909 Walnut Dr , Eureka, CA	3928 T St , Eureka, CA
3910 E St , Eureka, CA	3930 Cedar St , Eureka, CA
3910 F St , Eureka, CA	3930 E St , Eureka, CA
3911 Campton Rd , Eureka, CA	3930 F St , Eureka, CA
3911 E St , Eureka, CA	3931 D St , Eureka, CA
3911 T St , Eureka, CA	3931 E St , Eureka, CA

TABLE A-3
300' NOTIFICATION LIST

3932 Walnut Dr , Eureka, CA	3955 Davis Ct , Eureka, CA
3933 Bryeld Ct , Eureka, CA	3955 V St , Eureka, CA
3933 Salem Pl , Eureka, CA	3956 Bryeld Ct , Eureka, CA
3933 Walnut Dr , Eureka, CA	3956 G St , Eureka, CA
3935 Brogan Way , Eureka, CA	3956 Jacobs Ave , Eureka, CA
3935 Davis Ct , Eureka, CA	3961 E St , Eureka, CA
3935 Tess Ct , Eureka, CA	3963 Bryeld Ct , Eureka, CA
3936 Bryeld Ct , Eureka, CA	3965 Campton Rd , Eureka, CA
3936 T St , Eureka, CA	3973 Brookwood Dr , Bayside, CA
3937 Campton Rd , Eureka, CA	3973 Brookwood Dr , Bayside, CA
3938 G St , Eureka, CA	399 Gatliff Ave , Eureka, CA
3939 Cedar St , Eureka, CA	3990 Ardview Ln , Eureka, CA
3939 D St , Eureka, CA	3990 Ardview Ln , Eureka, CA
3939 T St , Eureka, CA	3990 Ardview Ln , Eureka, CA
3940 Bryeld Ct , Eureka, CA	3990 Ardview Ln , Eureka, CA
3940 Cedar St , Eureka, CA	3990 Ardview Ln , Eureka, CA
3940 D St , Eureka, CA	3990 Ardview Ln , Eureka, CA
3940 E St , Eureka, CA	3990 Ardview Ln , Eureka, CA
3940 F St , Eureka, CA	3995 Davis Ct , Eureka, CA
3940 Walnut Dr , Eureka, CA	40 Spruce St , Eureka, CA
3941 Cedar St , Eureka, CA	4003 Campton Rd , Eureka, CA
3941 E St , Eureka, CA	4015 Campton Rd , Eureka, CA
3941 F St , Eureka, CA	4015 Campton Rd , Eureka, CA
3943 Bryeld Ct , Eureka, CA	4015 Campton Rd , Eureka, CA
3943 Walnut Dr , Eureka, CA	4016 Viale Ave , Eureka, CA
3944 Harrison Ave , Eureka, CA	4024 Jacoby Creek Rd , Bayside, CA
3945 Brogan Way , Eureka, CA	4029 Walnut Dr , Eureka, CA
3945 Davis Ct , Eureka, CA	4029 Walnut Dr , Eureka, CA
3945 Tess Ct , Eureka, CA	413 Oak St , Eureka, CA
3946 Harrison Ave , Eureka, CA	4145 Morgan Pl , Eureka, CA
3948 Bryeld Ct , Eureka, CA	417 Gatliff Ave , Eureka, CA
3950 Brogan Way , Eureka, CA	4205 Union St , Eureka, CA
3950 Walnut Dr , Eureka, CA	4255 Union St , Eureka, CA
3953 Bryeld Ct , Eureka, CA	4283 Central Ave , Mckinleyville, CA
3953 Campton Rd , Eureka, CA	4293 Horseman Ln , Eureka, CA

TABLE A-3 (CONTINUED)
300' NOTIFICATION LIST

431 Gatliff Ave , Eureka, CA	470 Higgins St , Eureka, CA
4331 Liberty Bell Ct , Eureka, CA	4704 Union St , Eureka, CA
440 Herrick Ave , Eureka, CA	4705 Crane St , Eureka, CA
445 Herrick Ave , Eureka, CA	4707 Union St , Eureka, CA
450 Herrick Ave , Eureka, CA	4712 Little California St , Eureka, CA
4500 Union St , Eureka, CA	4719 Union St , Eureka, CA
451 Gatliff Ave , Eureka, CA	4720 Briggs Ln , Eureka, CA
452 Herrick Ave , Eureka, CA	4721 Union St , Eureka, CA
4543 Union St , Eureka, CA	4725 Little California St , Eureka, CA
4589 Kincaid Ct , Eureka, CA	4728 Union St , Eureka, CA
4605 Kincaid Ct , Eureka, CA	473 Gatliff Ave , Eureka, CA
4615 Little California St , Eureka, CA	4730 Kincaid Ct , Eureka, CA
4617 Kincaid Ct , Eureka, CA	4731 Crane St , Eureka, CA
4617 Little California St , Eureka, CA	4731 Kincaid Ct , Eureka, CA
4621 Little California St , Eureka, CA	4733 Little California St , Eureka, CA
4629 Union St , Eureka, CA	4734 Union St , Eureka, CA
4639 Kincaid Ct , Eureka, CA	4737 Crane St , Eureka, CA
464 Herrick Ave , Eureka, CA	4740 Union St , Eureka, CA
4640 Little California St , Eureka, CA	4740 Union St , Eureka, CA
4643 Little California St , Eureka, CA	4742 Kincaid Ct , Eureka, CA
4651 Kincaid Ct , Eureka, CA	4743 Kincaid Ct , Eureka, CA
4662 Little California St , Eureka, CA	4746 Little California St , Eureka, CA
4663 Kincaid Ct , Eureka, CA	4747 Aster Ave , Mckinleyville, CA
4665 California St , Eureka, CA	4747 Union St , Eureka, CA
4665 Kincaid Ct , Eureka, CA	4754 Kincaid Ct , Eureka, CA
4670 Little California St , Eureka, CA	4755 Kincaid Ct , Eureka, CA
4670 Little California St , Eureka, CA	4755 Patricia Dr , Eureka, CA
4681 Little California St , Eureka, CA	4766 Kincaid Ct , Eureka, CA
4686 Kincaid Ct , Eureka, CA	4767 Kincaid Ct , Eureka, CA
4687 Kincaid Ct , Eureka, CA	4775 Little California St , Eureka, CA
4693 Union St , Eureka, CA	4778 Kincaid Ct , Eureka, CA
4698 Kincaid Ct , Eureka, CA	4779 Kincaid Ct , Eureka, CA
4699 Kincaid Ct , Eureka, CA	4779 Kincaid Ct , Eureka, CA
47 Spruce St , Eureka, CA	478 Herrick Ave , Eureka, CA
470 Gatliff Ave , Eureka, CA	4780 Union St , Eureka, CA

TABLE A-3
300' NOTIFICATION LIST

4800 Allen Ct , Eureka, CA	4868 Union St , Eureka, CA
4801 Village Ct , Eureka, CA	4869 Hidden Meadows Ln , Eureka, CA
4805 Allen Ct , Eureka, CA	4869 Union St , Eureka, CA
481 Higgins St , Eureka, CA	4871 Allen Ct , Eureka, CA
4811 Crane St , Eureka, CA	4881 Crane St , Eureka, CA
4812 Union St , Eureka, CA	4886 Starlund Ct , Eureka, CA
4826 Allen Ct , Eureka, CA	4887 Crane St , Eureka, CA
4831 Allen Ct , Eureka, CA	4887 Union St , Eureka, CA
4832 Union St , Eureka, CA	4888 Artino Ct , Eureka, CA
484 Gatliff Ave , Eureka, CA	4889 Crane St , Eureka, CA
4840 Union St , Eureka, CA	4889 Starlund Ct , Eureka, CA
4843 Crane St , Eureka, CA	4896 Union St , Eureka, CA
4845 Hidden Meadows Ln , Eureka, CA	4900 Starlund Ct , Eureka, CA
4846 Starlund Ct , Eureka, CA	4905 Starlund Ct , Eureka, CA
4846 Union St , Eureka, CA	4905 Union St , Eureka, CA
4849 Daisy Ln , Eureka, CA	4912 Union St , Eureka, CA
4849 Union St , Eureka, CA	4917 Union St , Eureka, CA
485 E California Ave , Arcata, CA	492 Gatliff Ave , Eureka, CA
485 Higgins St , Eureka, CA	4921 Crane St , Eureka, CA
4850 Allen Ct , Eureka, CA	4922 Union St , Eureka, CA
4855 Allen Ct , Eureka, CA	4926 Starlund Ct , Eureka, CA
4855 Daisy Ln , Eureka, CA	4927 Union St , Eureka, CA
4857 Crane St , Eureka, CA	4929 Starlund Ct , Eureka, CA
4858 Union St , Eureka, CA	4932 Union St , Eureka, CA
4859 Starlund Ct , Eureka, CA	4937 Lundblade Dr , Eureka, CA
4859 Union St , Eureka, CA	4940 Starlund Ct , Eureka, CA
4860 Starlund Ct , Eureka, CA	4941 Artino Ct , Eureka, CA
4862 Allen Ct , Eureka, CA	4941 Union St , Eureka, CA
4863 Allen Ct , Eureka, CA	4945 Starlund Ct , Eureka, CA
4863 Union St , Eureka, CA	4949 Crane St , Eureka, CA
4865 Daisy Ln , Eureka, CA	4965 Union St , Eureka, CA
4865 Hidden Meadows Ln , Eureka, CA	4966 Starlund Ct , Eureka, CA
4865 Starlund Ct , Eureka, CA	4969 Crane St , Eureka, CA
4865 Starlund Ct , Eureka, CA	4969 Starlund Ct , Eureka, CA
4867 Union St , Eureka, CA	4979 Crane St , Eureka, CA

TABLE A-3 (CONTINUED)
300' NOTIFICATION LIST

498 Gatliff Ave , Eureka, CA	5211 Leppek Ct , Eureka, CA
499 Gatliff Ave , Eureka, CA	525 Herrick Ave , Eureka, CA
50 C St , Eureka, CA	525 Herrick Ave #41 , Eureka, CA
50 Silver Tip Ln , Eureka, CA	5300 Pinecrest Ct , Eureka, CA
500 Hunts Dr , Mckinleyville, CA	532 Gatliff Ave , Eureka, CA
501 Ryan Ct , Eureka, CA	532 Herrick Ave , Eureka, CA
5021 Meyers Ave , Eureka, CA	5324 Pinecrest Ct , Eureka, CA
504 Ryan Ct , Eureka, CA	5329 Pinecrest Ct , Eureka, CA
505 Gatliff Ave , Eureka, CA	533 E St , Eureka, CA
505 Ryan Ct , Eureka, CA	533 E St , Eureka, CA
506 Gatliff Ave , Eureka, CA	533 F St , Eureka, CA
506 Herrick Ave , Eureka, CA	535 Valley View Dr , Eureka, CA
508 Ryan Ct , Eureka, CA	5355 Pinecrest Ct , Eureka, CA
510 Herrick Ave , Eureka, CA	536 Valley View Dr , Eureka, CA
510 Valley View Dr , Eureka, CA	5381 Pinecrest Ct , Eureka, CA
510 Valley View Dr , Eureka, CA	5400 Pinecrest Ct , Eureka, CA
5107 Jacoby Creek Rd , Bayside, CA	5415 Pinecrest Ct , Eureka, CA
511 Ryan Ct , Eureka, CA	5421 Pinecrest Ct , Eureka, CA
5115 Meyers Ave , Eureka, CA	5424 Pinecrest Ct , Eureka, CA
5127 Meyers Ave , Eureka, CA	543 Gatliff Ave , Eureka, CA
5137 Blackberry Ln , Eureka, CA	5431 Elk River Rd , Eureka, CA
514 Ryan Ct , Eureka, CA	5431 Pinecrest Ct , Eureka, CA
515 Gatliff Ave , Eureka, CA	5447 Pinecrest Ct , Eureka, CA
517 Everding St , Eureka, CA	5448 Pinecrest Ct , Eureka, CA
517 Everding St , Eureka, CA	5453 Pinecrest Ct , Eureka, CA
517 Ryan Ct , Eureka, CA	546 Gatliff Ave , Eureka, CA
517 Ryan Ct , Eureka, CA	546 Valley View Dr , Eureka, CA
518 Gatliff Ave , Eureka, CA	5460 Pinecrest Ct , Eureka, CA
518 W Clark St , Eureka, CA	5485 Zeck Ln , Eureka, CA
518 W Clark St , Eureka, CA	549 Gatliff Ave , Eureka, CA
518 W Clark St , Eureka, CA	5497 Elk River Rd , Eureka, CA
519 Valley View Dr , Eureka, CA	5497 Elk River Rd , Eureka, CA
520 Herrick Ave , Eureka, CA	5515 Zeck Ln , Eureka, CA
520 Ryan Ct , Eureka, CA	5553 Zeck Ln , Eureka, CA
521 Gatliff Ave , Eureka, CA	557 Valley View Dr , Eureka, CA

TABLE A-3
300' NOTIFICATION LIST

560 Gatliff Ave , Eureka, CA	6399 Purdue Dr , Eureka, CA
560 Valley View Dr , Eureka, CA	64 Sunshine Way , Eureka, CA
5619 Lakepointe Dr , Rocklin, CA	646 Rocking Horse Ct , San Jose, CA
5625 Elk River Rd , Eureka, CA	646 Rocking Horse Ct , San Jose, CA
5752 Elk River Rd , Eureka, CA	675 Martin Way , Eureka, CA
5752 Elk River Rd , Eureka, CA	677 Mariah Dr , Yuba City, CA
5780 S Broadway St , Eureka, CA	6820 Linda Rd , Eureka, CA
579 Valley View Dr , Eureka, CA	6820 Linda Rd , Eureka, CA
5819 S Broadway St , Eureka, CA	694 Pleasant Ave , Eureka, CA
5829 Humboldt Hill Rd , Eureka, CA	698 46th St , Oakland, CA
5837 Humboldt Hill Rd , Eureka, CA	7201 Shelley Rd , Montague, CA
5845 Humboldt Hill Rd , Eureka, CA	723 Maxwell St , Fortuna, CA
5862 Kneeland Rd , Kneeland, CA	742 Herrick Ave , Eureka, CA
5900 Humboldt Hill Rd , Eureka, CA	801 E Shadow Ridge Rd , Casa Grande, AZ
5949 Humboldt Hill Rd , Eureka, CA	806 Masterson Pl , Eureka, CA
5954 Humboldt Hill Rd , Eureka, CA	825 5th St #111 , Eureka, CA
5958 Humboldt Hill Rd , Eureka, CA	825 5th St #111 , Eureka, CA
5959 Humboldt Hill Rd , Eureka, CA	825 5th St #111 , Eureka, CA
5959 Humboldt Hill Rd , Eureka, CA	825 5th St #111 , Eureka, CA
60 E Ridge Ln , Mckinleyville, CA	825 5th St #111 , Eureka, CA
60 E Ridge Ln , Mckinleyville, CA	825 5th St #111 , Eureka, CA
60 E Ridge Ln , Mckinleyville, CA	825 5th St #111 , Eureka, CA
60 E Ridge Ln , Mckinleyville, CA	825 5th St #111 , Eureka, CA
60 Park Ridge Rd , San Rafael, CA	825 5th St #111 , Eureka, CA
605 Oak St , Eureka, CA	8881 Poplar Ave , Cotati, CA
6060 Humboldt Hill Rd , Eureka, CA	893 Nancy Ct , Eureka, CA
6060 Humboldt Hill Rd , Eureka, CA	916 S St , Eureka, CA
6088 Nelson Ln , Eureka, CA	9210 Red Baron Blvd , Reno, NV
611 L St D , Eureka, CA	927 Janie Rd , Mckinleyville, CA
6111 Myers Ave , Eureka, CA	928 H St , Arcata, CA
6135 Pryor St , Eureka, CA	Po Box 1082 , Ferndale, CA
617 Pacific Ave , Alameda, CA	Po Box 1089 , Arcata, CA
62 Sunshine Way , Eureka, CA	Po Box 1185 , Atwater, CA
63 Garibaldi Way , Henderson, NV	Po Box 1236 , Trinidad, CA
631 Oak St , Eureka, CA	Po Box 145 , Cutten, CA
	Po Box 149 , Fortuna, CA

TABLE A-3 (CONTINUED)
300' NOTIFICATION LIST

Po Box 149 , Fortuna, CA	Po Box 398 , Bayside, CA
Po Box 149 , Fortuna, CA	Po Box 401 , Eureka, CA
Po Box 158 , Cutten, CA	Po Box 408 , Cutten, CA
Po Box 161 , Loleta, CA	Po Box 459 , Miranda, CA
Po Box 188 , Cutten, CA	Po Box 4711 , Arcata, CA
Po Box 188 , Cutten, CA	Po Box 494 , Garberville, CA
Po Box 188 , Cutten, CA	Po Box 5276 , Eureka, CA
Po Box 188 , Cutten, CA	Po Box 5276 , Eureka, CA
Po Box 188 , Cutten, CA	Po Box 5388 , Eureka, CA
Po Box 188 , Cutten, CA	Po Box 5711 , Eureka, CA
Po Box 188 , Cutten, CA	Po Box 5711 , Eureka, CA
Po Box 188 , Cutten, CA	Po Box 5711 , Eureka, CA
Po Box 188 , Cutten, CA	Po Box 5711 , Eureka, CA
Po Box 188 , Cutten, CA	Po Box 5711 , Eureka, CA
Po Box 20223 , Riverside, CA	Po Box 5711 , Eureka, CA
Po Box 203 , Arcata, CA	Po Box 576 , Fortuna, CA
Po Box 23 , Eureka, CA	Po Box 6036 , Eureka, CA
Po Box 2413 , Mckinleyville, CA	Po Box 6068 , Eureka, CA
Po Box 2421 , Weaverville, CA	Po Box 6134 , Eureka, CA
Po Box 276 , Cutten, CA	Po Box 6159 , Eureka, CA
Po Box 276 , Cutten, CA	Po Box 6264 , Eureka, CA
Po Box 311 , Cutten, CA	Po Box 6329 , Eureka, CA
Po Box 319 , Cutten, CA	Po Box 6514 , Eureka, CA
Po Box 324 , Cutten, CA	Po Box 6514 , Eureka, CA
Po Box 327 , Cutten, CA	Po Box 6514 , Eureka, CA
Po Box 327 , Cutten, CA	Po Box 6514 , Eureka, CA
Po Box 339 , Loleta, CA	Po Box 6514 , Eureka, CA
Po Box 356 , Cutten, CA	Po Box 6514 , Eureka, CA
Po Box 356 , Cutten, CA	Po Box 66 , Cutten, CA
Po Box 3597 , Eureka, CA	Po Box 6610 , Eureka, CA
Po Box 368 , Blue Lake, CA	Po Box 6610 , Eureka, CA
Po Box 3687 , Eureka, CA	Po Box 6621 , Eureka, CA
Po Box 3716 , Eureka, CA	Po Box 672 , Fortuna, CA
Po Box 378 , Cutten, CA	Po Box 6859 , Eureka, CA
Po Box 384 , Cutten, CA	Po Box 6859 , Eureka, CA
Po Box 398 , Bayside, CA	Po Box 6859 , Eureka, CA

TABLE A-3
300' NOTIFICATION LIST

Po Box 6968 , Eureka, CA	5681 Country Ln , Eureka, CA
Po Box 6968 , Eureka, CA	67 Sunshine Way , Eureka, CA
Po Box 6968 , Eureka, CA	68 Sunshine Way , Eureka, CA
Po Box 7100 , Eureka, CA	33105 Santiago Rd #118 , Acton, CA
Po Box 714 , Bayside, CA	4009 Cedar St , Eureka, CA
Po Box 714 , Bayside, CA	2480 Redwood St , Eureka, CA
Po Box 7193 , Eureka, CA	Po Box 5388 , Eureka, CA
Po Box 722 , San Bruno, CA	2450 Fern St , Eureka, CA
Po Box 7222 , Eureka, CA	1812 Hodgson St , Eureka, CA
Po Box 7228 , Eureka, CA	602 Harvard Ct , Woodland, CA
Po Box 740 , Eureka, CA	Po Box 398 , Bayside, CA
Po Box 77 , Cutten, CA	1653 Myrtle Ave , Eureka, CA
Po Box 804 , Eureka, CA	1653 Myrtle Ave , Eureka, CA
Po Box 804 , Eureka, CA	3927 Cross Ln , Eureka, CA
Po Box 825 , Loyalton, CA	8 Sunshine Way , Eureka, CA
Po Box 8279 , Eureka, CA	5829 Humboldt Hill Rd , Eureka, CA
Po Box 9061 , Eureka, CA	Po Box 834 , Eureka, CA
Po Box 933 , Saint David, AZ	2240 Fern St , Eureka, CA
Po Box 996 , Ukiah, CA	4057 Cedar St , Eureka, CA
3956 Jacobs Ave , Eureka, CA	3973 Cedar St , Eureka, CA
1909 Roth Ct , Eureka, CA	Po Box 398 , Bayside, CA
895 Pine Hill Rd , Eureka, CA	1821 S Bascom Ave #105 , Campbell, CA
851 Pine Hill Rd , Eureka, CA	2950 E St C , Eureka, CA
1840 Myrtle Ave , Eureka, CA	Po Box 6433 , Eureka, CA
28420 Hunter Creek Hts , Gold Beach, OR	5497 Elk River Rd , Eureka, CA
5658 Country Ln , Eureka, CA	297 Valley Ave , Fortuna, CA
4255 Union St , Eureka, CA	510 Valley View Dr , Eureka, CA
510 Valley View Dr , Eureka, CA	510 Valley View Dr , Eureka, CA
5 Sunshine Way , Eureka, CA	16 Sunshine Way , Eureka, CA
63 Garibaldi Way , Henderson, NV	3975 Harrison Ave #1 , Eureka, CA
1260 Morningside Dr , Sunnyvale, CA	69 Sunshine Way , Eureka, CA
18 Sunshine Way , Eureka, CA	824 Pine Hill Rd , Eureka, CA
10 Sunshine Way , Eureka, CA	65 Sunshine Way , Eureka, CA
4283 Central Ave , Mckinleyville, CA	115 Redmond Rd , Eureka, CA
66 Sunshine Way , Eureka, CA	6820 Linda Rd , Eureka, CA

TABLE A-3 (CONTINUED)
300' NOTIFICATION LIST

1589 Myrtle Ave , Eureka, CA	Po Box 6514 , Eureka, CA
2453 Fern St , Eureka, CA	Po Box 6514 , Eureka, CA
2950 E St C , Eureka, CA	Po Box 23 , Eureka, CA
4045 Cedar St , Eureka, CA	1913 S Quarry Rd , Bayside, CA
14 Sunshine Way , Eureka, CA	Po Box 23 , Eureka, CA
2950 E St C , Eureka, CA	Po Box 996 , Ukiah, CA
Po Box 5388 , Eureka, CA	5959 Humboldt Hill Rd , Eureka, CA
64 Sunshine Way , Eureka, CA	Po Box 6264 , Eureka, CA
Po Box 740 , Eureka, CA	2950 E St C , Eureka, CA
Po Box 182 , Arcata, CA	Po Box 6514 , Eureka, CA
Po Box 6789 , Eureka, CA	824 Pine Hill Rd , Eureka, CA
60 Sunshine Way , Eureka, CA	3941 Cedar St , Eureka, CA
63 Sunshine Way , Eureka, CA	Po Box 276 , Cutten, CA
7 Sunshine Way , Eureka, CA	531 K St , Eureka, CA
Po Box 276 , Cutten, CA	913 Capri Dr , Campbell, CA
1653 Myrtle Ave , Eureka, CA	2031 Eich Rd , Eureka, CA
Po Box 344 , Cutten, CA	2031 Eich Rd , Eureka, CA
Po Box 714 , Bayside, CA	Po Box 6433 , Eureka, CA
Po Box 188 , Cutten, CA	3100 Main St , Eureka, CA
Po Box 825 , Loyalton, CA	485 E California Ave , Arcata, CA
69 Pamela Ln , Bayside, CA	Po Box 5388 , Eureka, CA
Po Box 5388 , Eureka, CA	1457 Marsh St #100 , San Luis Obispo, CA
Po Box 459 , Miranda, CA	Po Box 996 , Ukiah, CA
Po Box 996 , Ukiah, CA	2950 E St C , Eureka, CA
Po Box 398 , Bayside, CA	1589 Myrtle Ave , Eureka, CA
5555 Elk River Rd , Eureka, CA	1589 Myrtle Ave , Eureka, CA
Po Box 6514 , Eureka, CA	Po Box 6514 , Eureka, CA
2950 E St C , Eureka, CA	2950 E St C , Eureka, CA
Po Box 398 , Bayside, CA	6135 Pryor St , Eureka, CA
4255 Union St , Eureka, CA	4316 Union St , Eureka, CA
Po Box 6514 , Eureka, CA	Po Box 327 , Cutten, CA
2485 Redwood St , Eureka, CA	Po Box 327 , Cutten, CA
Po Box 6514 , Eureka, CA	301 L St , Eureka, CA
Po Box 6514 , Eureka, CA	510 Valley View Dr , Eureka, CA
Po Box 6514 , Eureka, CA	Po Box 394 , Loleta, CA

TABLE A-3
300' NOTIFICATION LIST

4255 Union St , Eureka, CA	358 E J St , Chula Vista, CA
3225 Longfellow Blvd , Saint Louis, MO	3076 Main St , Eureka, CA
Po Box 6610 , Eureka, CA	3950 Tess Ct , Eureka, CA
Po Box 6610 , Eureka, CA	3050 Main St , Eureka, CA
Po Box 394 , Loleta, CA	1330 Madrone Ave , Eureka, CA
1251 King Salmon Ave , Eureka, CA	3684 J St , Eureka, CA
611 S Palm Canyon Dr #7067 , Palm Springs, CA	1179 King Salmon Ave , Eureka, CA
677 Mariah Dr , Yuba City, CA	115 Redmond Rd , Eureka, CA
1251 King Salmon Ave , Eureka, CA	1179 King Salmon Ave , Eureka, CA
1131 Cedar Dr , Arcata, CA	11725 Wilder Rd , Red Bluff, CA
Po Box 394 , Loleta, CA	1251 King Salmon Ave , Eureka, CA
Po Box 517 , Fortuna, CA	3100 Main St , Eureka, CA
611 S Palm Canyon Dr #7067 , Palm Springs, CA	7625 Ford Ln , Eureka, CA
3225 Longfellow Blvd , Saint Louis, MO	3002 Main St , Eureka, CA
Po Box 6610 , Eureka, CA	253 Quail Valley Rd , Eureka, CA
3660 J St , Eureka, CA	3630 O St , Eureka, CA
4255 Union St , Eureka, CA	3956 Jacobs Ave , Eureka, CA
63 Garibaldi Way , Henderson, NV	1201 King Salmon Ave , Eureka, CA
3199 Mitchell Rd , Eureka, CA	2930 Main St , Eureka, CA
3088 Main St , Eureka, CA	2934 Ross Creek Ct , Redding, CA
Po Box 225 , Eureka, CA	2177 Meadowwood Ln , Eureka, CA
2831 S Carolina St , San Pedro, CA	Po Box 996 , Ukiah, CA
435 Blue Blossom Ln , Eureka, CA	Po Box 6514 , Eureka, CA
3225 Longfellow Blvd , Saint Louis, MO	Po Box 6514 , Eureka, CA
1316 Madrone Ave , Eureka, CA	Po Box 6514 , Eureka, CA
3641 O St , Eureka, CA	5497 Elk River Rd , Eureka, CA
3650 J St , Eureka, CA	5555 Elk River Rd , Eureka, CA
3678 J St , Eureka, CA	195 Kluck Ln , Eureka, CA
3760 J St , Eureka, CA	195 Kluck Ln , Eureka, CA
3945 Tess Ct , Eureka, CA	Po Box 6514 , Eureka, CA
3955 Tess Ct , Eureka, CA	Po Box 149 , Fortuna, CA
3660 J St , Eureka, CA	Po Box 724 , Eureka, CA
1055 Vista Dr , Eureka, CA	Po Box 724 , Eureka, CA
Po Box 4711 , Arcata, CA	Po Box 724 , Eureka, CA
1229 King Salmon Ave , Eureka, CA	Po Box 724 , Eureka, CA

TABLE A-3 (CONTINUED)
300' NOTIFICATION LIST

2950 E St C , Eureka, CA	1650 Hemlock St , Eureka, CA
825 5th St #111 , Eureka, CA	4360 Union St , Eureka, CA
Po Box 1030 , Eureka, CA	60 Sunshine Way , Eureka, CA
825 5th St #111 , Eureka, CA	2440 Redwood St , Eureka, CA
4569 Pacific Ln , Eureka, CA	4205 Union St #2 , Eureka, CA
Po Box 149 , Fortuna, CA	4205 Union St #4 , Eureka, CA
4569 Pacific Ln , Eureka, CA	4305 Union St , Eureka, CA
4569 Pacific Ln , Eureka, CA	40 Spruce St , Eureka, CA
Po Box 149 , Fortuna, CA	815 Pine Hill Rd , Eureka, CA
Po Box 517 , Fortuna, CA	4073 Cedar St , Eureka, CA
Po Box 149 , Fortuna, CA	2483 Fern St , Eureka, CA
Po Box 149 , Fortuna, CA	4205 Union St #1 , Eureka, CA
Po Box 28 , Cutten, CA	4205 Union St #3 , Eureka, CA
1336 4th St , Eureka, CA	62 Sunshine Way , Eureka, CA
Po Box 1030 , Eureka, CA	3944 Harrison Ave , Eureka, CA
Po Box 149 , Fortuna, CA	4280 Union St , Eureka, CA
Po Box 6859 , Eureka, CA	2467 Fern St , Eureka, CA
3225 Longfellow Blvd , Saint Louis, MO	2475 Redwood St , Eureka, CA
1213 King Salmon Ave , Eureka, CA	47 Spruce St , Eureka, CA
1229 King Salmon Ave , Eureka, CA	3963 Cedar St , Eureka, CA
1515 Buhne St , Eureka, CA	1495 Golden West Ct , Eureka, CA
3651 O St , Eureka, CA	3975 Cedar St , Eureka, CA
358 E J St , Chula Vista, CA	3925 Cross Ln , Eureka, CA
533 E St , Eureka, CA	4205 Union St , Eureka, CA
Po Box 6610 , Eureka, CA	2460 Fern St , Eureka, CA
1215 King Salmon Ave , Eureka, CA	5111 Meyers Ave , Eureka, CA
3684 J St , Eureka, CA	1485 Golden West Ct , Eureka, CA
Po Box 724 , Eureka, CA	2499 Fern St , Eureka, CA
1330 Madrone Ave , Eureka, CA	570 Sea Ave , Eureka, CA
611 S Palm Canyon Dr #7067 , Palm Springs, CA	5752 Elk River Rd , Eureka, CA
Po Box 6610 , Eureka, CA	1500 Golden West Ct , Eureka, CA
3760 J St , Eureka, CA	2460 Redwood St , Eureka, CA
149 Redmond Rd , Eureka, CA	2466 Fern St , Eureka, CA
2930 Main St , Eureka, CA	4015 Cedar St , Eureka, CA
Po Box 294 , Fields Landing, CA	5625 Elk River Rd , Eureka, CA

TABLE A-3
300' NOTIFICATION LIST

6111 Myers Ave , Eureka, CA	6558 3rd St , Fields Landing, CA
3925 Cedar St , Eureka, CA	47 Spruce St , Eureka, CA
3948 Harrison Ave , Eureka, CA	3879 H St , Eureka, CA
3950 Harrison Ave , Eureka, CA	2910 Mitchell Heights Dr , Eureka, CA
2010 Eich Rd , Eureka, CA	1173 King Salmon Ave , Eureka, CA
1505 Golden West Ct , Eureka, CA	1281 King Salmon Ave , Eureka, CA
2508 Fern St , Eureka, CA	255 C St , Fields Landing, CA
5260 Elk River Rd , Eureka, CA	3322 Mitchell Rd , Eureka, CA
1520 Golden West Ct , Eureka, CA	175 Railroad Ave , Fields Landing, CA
5752 Elk River Rd , Eureka, CA	6638 3rd St , Fields Landing, CA
5845 Humboldt Hill Rd , Eureka, CA	6608 3rd St , Fields Landing, CA
2035 Eich Rd , Eureka, CA	1245 King Salmon Ave , Eureka, CA
3946 Harrison Ave , Eureka, CA	1165 King Salmon Ave , Eureka, CA
5837 Humboldt Hill Rd , Eureka, CA	1361 Buhne Dr , Eureka, CA
4150 Union St , Eureka, CA	3308 Mitchell Rd , Eureka, CA
5959 Humboldt Hill Rd , Eureka, CA	50 C St , Eureka, CA
5376 Elk River Rd , Eureka, CA	1145 King Salmon Ave , Eureka, CA
2532 Fern St , Eureka, CA	3300 Mitchell Rd , Eureka, CA
4300 Union St , Eureka, CA	190 C St , Fields Landing, CA
5784 Humboldt Hill Rd , Eureka, CA	1111 King Salmon Ave , Eureka, CA
488 Sea Ave , Eureka, CA	2974 Main St , Eureka, CA
6580 3rd St , Fields Landing, CA	
1255 King Salmon Ave , Eureka, CA	
4305 Union St , Eureka, CA	
1149 King Salmon Ave , Eureka, CA	
3801 J St , Eureka, CA	
40 Spruce St , Eureka, CA	
240 C St , Fields Landing, CA	
3666 J St , Eureka, CA	
3702 O St , Eureka, CA	
3660 O St , Eureka, CA	
1207 King Salmon Ave , Eureka, CA	
1237 King Salmon Ave , Eureka, CA	
3708 J St , Eureka, CA	
3660 O St , Eureka, CA	

Appendix B

Field Management Plan



EXHIBIT D
PRELIMINARY EMF FIELD MANAGEMENT PLAN

**PRELIMINARY TRANSMISSION MAGNETIC FIELD MANAGEMENT PLAN
HUMBOLDT BAY-HUMBOLDT #1 60 KV LINE RECONDUCTORING PROJECT**

I. General Description of Project

Project Lead: Project Manager, Electric Transmission Maintenance and Construction

Transmission Lines: Humboldt Bay-Humboldt #1 60 kV Line

Distribution line Underbuild: 12 kV.

Scope of Work:

Current scope of work is to reductor Humboldt Bay-Humboldt #1 60 kV (Approximately 7.8 miles long) with 715 AAC "Violet" conductor. Within the same project alignment, the scope includes reductoring the first 0.6 miles of the Humboldt Bay-Eureka line and co-locating it on lattice steel towers with the Humboldt Bay-Humboldt #1 60 kV line. The rest of the line is on a Single Circuit Pole Line (SCPL) and the scope starts at Humboldt Bay Substation and ends at Humboldt #1 Substation. The tap (004/002-000/009) is NOT part of scope of work, which connects Humboldt #1 and Eureka.

The estimated total cost of the proposed project is approximately \$13,200,000. Four percent of this estimated total cost is \$528,000.

PRELIMINARY TRANSMISSION MAGNETIC FIELD MANAGEMENT PLAN HUMBOLDT BAY-HUMBOLDT #1 60 KV LINE RECONDUCTORING PROJECT

II. Background: CPUC Decision 93-11-013 and Decision D.06-01-042

On January 15, 1991, the CPUC initiated an investigation to consider its role in mitigating the health effects, if any, of electric and magnetic fields (EMF) from utility facilities and power lines. A working group of interested parties, called the California EMF Consensus Group, was created by the CPUC to advise it on this issue. It consisted of 17 stakeholders representing citizens groups, consumer groups, environmental groups, state agencies, unions, and utilities. The Consensus Group's fact-finding process was open to the public, and its report incorporated concerns expressed by the public. The Consensus Group's recommendations were filed with the Commission in March 1992.

In August 2004 the CPUC began a proceeding known as a "rulemaking" (R.04-08-020) to explore whether changes should be made to existing CPUC policies and rules concerning EMF from electric transmission lines and other utility facilities.

Through a series of hearings and conferences, the Commission evaluated the results of its existing EMF mitigation policies and addressed possible improvements in implementation of these policies. The CPUC also explored whether new policies were warranted in light of recent scientific findings on the possible health effects of EMF exposure.

The CPUC completed the EMF rulemaking in January 2006 and presented these conclusions in Decision D.06-01-042:

- The CPUC affirmed its existing policy of requiring no-cost and low-cost mitigation measures to reduce EMF levels from new utility transmission lines and substation projects.
- The CPUC adopted rules and policies to improve utility design guidelines for reducing EMF, and established a utility workshop to implement these policies and standardize design guidelines.
- Despite numerous studies, including one ordered by the Commission and conducted by the California Department of Health Services, the CPUC stated "we are unable to determine whether there is a significant scientifically verifiable relationship between EMF exposure and negative health consequences."
- The CPUC said it will "remain vigilant" regarding new scientific studies on EMF, and if these studies indicate negative EMF health impacts, the Commission will reconsider its EMF policies and open a new rulemaking if necessary.

In response to a situation of scientific uncertainty and public concern, the decision specifically requires utilities to consider "no-cost" and "low-cost" measures, where feasible, to reduce exposure from new or upgraded utility facilities. It directs that no-cost mitigation measures be undertaken, and that low-cost options, when they meet certain guidelines for field reduction and cost, be adopted through the project certification process. PG&E was directed to develop, submit and follow EMF guidelines to implement the CPUC decision. According to the guidelines, four percent of total project budgeted cost is the benchmark used to determine "low-cost" in

PRELIMINARY TRANSMISSION MAGNETIC FIELD MANAGEMENT PLAN HUMBOLDT BAY-HUMBOLDT #1 60 KV LINE RECONDUCTORING PROJECT

implementing EMF mitigation, and mitigation measures should achieve incremental magnetic field reductions of at least 15% at the edge of right-of-way (ROW).

III. No-Cost and Low-Cost Magnetic Field Mitigation

No Cost Field Reduction

Optimal phase configurations can be used as a field cancellation technique. The phases from one circuit of a multi-circuit line can be used to reduce the field from another circuit, thereby reducing the total magnetic field strength. For this reason, multi-circuit lines may have lower magnetic fields than single circuit lines. The Humboldt Bay-Humboldt #1 60 kV line is a single circuit and optimal phasing is not available.

IV. General Description of Surrounding Land Uses

Schools or Daycare: Two structures.

Residential: Fifty-one structures.

Commercial/Industrial: Seven structures.

Recreational: Two structures.

Agricultural, Rural, and Undeveloped Land: Sixty-two structures.

Priority Areas where Low Cost Measures Should Be Considered

Fifty-three structures in the school/daycare and residential land use areas are considered for magnetic field reduction.

Low Cost Magnetic Field Reduction Options

Reducing magnetic field strength by increasing the distance from the source can be accomplished either by increasing the height or depth of the conductor from ground level. Furthermore, locating the power lines as far away from the edge of the ROW or as close to centerline as possible will result in lower field levels at the edge of the ROW. Below are calculations showing magnetic field reductions from raising conductor heights an additional 10 feet more than needed to meet clearance requirements:

Segment	Base Case		Raise 10 Feet		Reduction	
	North ROW	South ROW	North ROW	South ROW	North ROW	South ROW
HUMBOLDT BAY-HUMBOLDT #1 60 KV LINE	31.6 mG	31.6 mG	20.9 mG	20.9 mG	33.9%	33.9%

The purpose of magnetic field modeling is to evaluate relative effectiveness of various magnetic field reduction measures, not to predict magnetic field levels

PRELIMINARY TRANSMISSION MAGNETIC FIELD MANAGEMENT PLAN HUMBOLDT BAY-HUMBOLDT #1 60 KV LINE RECONDUCTORING PROJECT

No Cost and Low Cost Magnetic Field Mitigation Measures

The following table identifies the no cost and low cost field mitigation measures for each line segment, including the reasoning for each, and the estimated cost to adopt the measure.

HUMBOLDT BAY-HUMBOLDT #1 60 KV LINE SEGMENT						
Project Segment (Pole/Tower ID #)	Location (Street, Area)	Adjacent Land Use	Reduction Measure Considered	Measure Adopted?	Reason(s) if not adopted	Estimated Cost to Adopt
TSP #1 - 2/1		Undeveloped, Agricultural, Rural				
2/2 & 2/3		Residential Undeveloped, Agricultural, Rural	Raise Conductor 10 Feet	Yes		\$2,400
2/4 - 2/7						
2/8 - 2/12		Residential	Raise Conductor 10 Feet	Yes		\$6,000
2/12 Stub - 2/13		Commercial/Industrial				
3/0		Residential Undeveloped, Agricultural, Rural	Raise Conductor 10 Feet	Yes		\$1,200
3/1 - 3/3						
3/4 - 3/11		Residential Undeveloped, Agricultural, Rural	Raise Conductor 10 Feet	Yes		\$14,400
3/12 - 4/0						
4/1 & 4/2		Residential Undeveloped, Agricultural, Rural	Raise Conductor 10 Feet	Yes		\$2,400
4/3 - 4/5						
4/6 & 4/9		Residential	Raise Conductor 10 Feet	Yes		\$4,800
4/10 & 4/11		School/Daycare	Raise Conductor 10 Feet	Yes		\$2,400
4/12 & 4/13		Residential Undeveloped, Agricultural, Rural	Raise Conductor 10 Feet	Yes		\$2,400
4/14 - 5/0						
5/1 - 5/4		Residential Undeveloped, Agricultural, Rural	Raise Conductor 10 Feet	Yes		\$4,800
5/5						
5/6 - 5/13 Stub		Residential Undeveloped, Agricultural, Rural	Raise Conductor 10 Feet	Yes		\$10,800
5/14 - 6/11						
6/12 - 7/0		Commercial/Industrial				
7/1 & 7/2		Recreational Undeveloped, Agricultural, Rural				
7/3 - 7/8						
7/9 - 7/15		Residential	Raise Conductor 10 Feet	Yes		\$12,000

This FMP proposes to raise the height of fifty-three structures in the school/daycare and residential land use areas by 10 feet taller than required for meeting clearance requirements. The estimated cost of this mitigation is \$63,600.

PRELIMINARY TRANSMISSION MAGNETIC FIELD MANAGEMENT PLAN HUMBOLDT BAY-HUMBOLDT #1 60 KV LINE RECONDUCTORING PROJECT

V. Conclusion - Field Reduction Options Selected

This FMP proposes to raise the height of fifty-three structures in the school/daycare and residential land use areas by 10 feet taller than required for meeting clearance requirements. The estimated cost of this mitigation is \$63,600.

VI. References

California Public Utilities Commission. 1993. Order instituting investigation on the Commission's own motion to develop policies and procedures for addressing the potential health effects of electric and magnetic fields of utility facilities. Decision 93-11-013. November 2.

California Public Utilities Commission. 2006. Order Instituting Rulemaking to update the Commission's policies and procedures related to electromagnetic fields emanating from regulated utility facilities. Decision 06-01-042 January 26.

Pacific Gas & Electric Company. 2006. EMF Design Guidelines for Electrical Facilities.

CERTIFICATE OF SERVICE BY HAND DELIVERY

I, the undersigned, state that I am a citizen of the United States and am employed in the City and County of San Francisco; that I am over the age of eighteen (18) years and not a party to the within cause; and that my business address is 77 Beale Street, B30A, San Francisco, California 94105

On February 7, 2019, I served a true copy of:

**APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY
FOR A PERMIT TO CONSTRUCT THE
HUMBOLDT BAY-HUMBOLDT 60 KV
RECONDUCTORING PROJECT**

by hand delivery, addressed to:

Chief Administrative Law Judge Anne Simon
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Executive Director
California Coastal Commission
45 Fremont Street, #1900
San Francisco, CA 94105

Elizabeth Echols
Public Advocates Office
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

John Forsythe
Energy Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

I certify and declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on this 7th day of February, 2019, at San Francisco, California.

/s/ Lynn Powell

LYNN POWELL

Appendix C

Air Quality, Greenhouse Gas Emissions, and Energy



Total Helicopter Emissions

Helicopter	Combustion Emissions (tons)					Fugitive Emissions (tons)		GHG Emissions (metric tons)			
	HC	CO	NOx	SOx	PM	PM10	PM2.5	CO ₂	N ₂ O	CH ₄	CO _{2e}
Blackhawk	0.26	0.32	0.89	0.09	0.02	0.26	0.03	246.30	0.01	0.01	248.92
Bell 214	0.02	0.02	0.08	0.01	0.00	0.02	0.00	19.44	0.00	0.00	19.65
MD 530F	0.03	0.03	0.04	0.01	0.00	0.02	0.00	14.56	0.00	0.00	14.72
Total	0.30	0.37	1.01	0.11	0.03	0.30	0.03	280.30	0.01	0.01	283.28

Helicopter	Combustion Emissions (lb/day)						Fugitive Emissions (tons)	
	HC	CO	NOx	SOx	PM10	PM2.5	PM10	PM2.5
Blackhawk	2.91	3.55	9.92	1.04	0.28	0.25	2.86	0.29
Bell 214	0.18	0.22	0.85	0.08	0.02	0.02	0.22	0.02
MD 530F	0.28	0.35	0.41	0.06	0.01	0.01	0.22	0.02
Total	3.37	4.11	11.18	1.18	0.311	0.280	3.30	0.330

Assumptions

Total Construction period 180 days
 Assume PM = PM10
 From AP 42 Table B.2-2 Category 1, PM2.5 is 90% of total PM

	HC	CO	NOx	SOx	PM10	PM2.5	Fugitive Emissions	
							PM10	PM2.5
CalEEMod OUT	0.49	4.43	3.38	0.01	0.15	0.14	0.189	0.0545
	5.481	49.241	37.500	0.092	1.694	1.598	2.100	0.606
Project Total	8.85	53.4	48.68	1.28	2.01	1.88	5.400	0.936

tons
 lb/day
 lb/day

HELICOPTER (SIKORSKY BLACKHAWK) EMISSION CALCULATIONS

Helicopter Model	Blackhawk
Engine Type	T700-GE-700
Fuel S Content by Weight	0.054 %
Fuel Burn Rate (flight)	166 gal/hr
Fuel Burn Rate (LTO)	24 gal/LTO
Jet Fuel Density	6.74 lbs/gal
CO ₂ Emission Factor	9.57 kg/gal fuel
CH ₄ Emission Factor	0.00027 kg/gal fuel
N ₂ O Emission Factor	0.00031 kg/gal fuel
CH ₄ Global Warming Potential	21
N ₂ O Global Warming Potential	310

Activity	Combustion Emission Factors					Fugitive Emission Factors		GHG Emission Factors		
	HC	CO	NOx	SOx	PM	PM10	PM2.5	CO ₂	N ₂ O	CH ₄
Flight (lbs/hr)	2.44	2.90	11.95	1.21	0.33	-	-	3488.34	0.11	0.10
LTO (lbs)	1.28	1.62	1.27	0.17	0.04	3.3	0.33	501.67	0.02	0.01

Activity	Quantity	Combustion Emissions (lbs/day)					Fugitive Emissions (lbs/day)		GHG Emissions (lbs/day)			
		HC	CO	NOx	SOx	PM	PM10	PM2.5	CO ₂	N ₂ O	CH ₄	CO2e
Tower and TSP Foundation Installation												
Flight	2.325 hrs/day	5.68	6.75	27.77	2.80	0.77	-	-	8110.39	0.26	0.23	8196.64
LTO	3 LTOs/day	3.83	4.86	3.80	0.52	0.11	9.90	0.99	1505.02	0.05	0.04	1521.02
Total		9.51	11.62	31.57	3.32	0.88	9.90	0.99	9615.41	0.31	0.27	9717.66
Tower Installation												
Flight	5.325 hrs/day	13.00	15.46	63.61	6.42	1.76	-	-	18575.42	0.60	0.52	18772.96
LTO	3 LTOs/day	3.83	4.86	3.80	0.52	0.11	9.90	0.99	1505.02	0.05	0.04	1521.02
Total		16.84	20.33	67.41	6.94	1.87	9.90	0.99	20080.44	0.65	0.57	20293.98

Activity	Working Days	Combustion Emissions (tons)					Fugitive Emissions (tons)		GHG Emissions (metric tons)			
		HC	CO	NOx	SOx	PM	PM10	PM2.5	CO ₂	N ₂ O	CH ₄	CO2e
Tower and TSP Foundation Installation	48	0.23	0.28	0.76	0.08	0.02	0.24	0.02	209.79	0.01	0.01	212.02
Tower Installation	4	0.03	0.04	0.13	0.01	0.00	0.02	0.00	36.51	0.00	0.00	36.90
Total		0.26	0.32	0.89	0.09	0.02	0.26	0.03	246.30	0.01	0.01	248.92

Notes:

Emission factors and fuel burn rates obtained from the FOCA Guidance on Determination of Helicopter Emissions, Edition 2, December 2015.

LTO = Landing and take-off cycle.

Each day of helicopter operations was assumed to contain 3 LTOs, each 13.5 minutes long. The helicopter was assumed to be in flight during the remainder of the day's operations.

Jet Fuel assumed to contain an average 0.054% wt. sulfur per the FAA's Aviation Emissions, Impacts & Mitigation: a Primer, dated January 2015.

Fugitive dust emission factor source: Dr. J. A. Gillies et. al. December 31, 2007, Particulate Matter Emissions for Dust from Unique Military Activities . Measurements indicated approximately 0.5 kg of PM10 during takeoff and 1 kg during landing. Measurements were conducted in dry, unpaved, desert in Arizona. The model used in testing was a UH-1H Huey, generally similar to the helicopter above. The 0.5 kg takeoff and 1 kg landing emission factor is conservatively assumed for all helicopters. The landing and takeoff surface is assumed to be watered, reducing fugitive dust emissions 55%.

PM2.5/PM10 Factor: Western Governors' Association. September 7, 2006. WRAP Fugitive Dust Handbook. The emission factor for PM2.5 for unpaved roads is 0.1 x PM10 emissions.

Greenhouse gas emission factors and global warming potentials (GWP) obtained from California Climate Action Registry General Reporting Protocol, Version 3.1, January 2009.

Density of fuel from ExxonMobil Aviation World Jet Fuel Specifications, 2005 Edition.

775-840 kg/m³ = 6.47 - 7.01 lb/gallon

Average Density = 6.74 lb/gallon

HELICOPTER (Bell 214) EMISSION CALCULATIONS

Helicopter Model	Bell 214
Engine Type	PT6B-3
Fuel S Content by Weight	0.054 %
Fuel Burn Rate (flight)	88 gal/hr
Fuel Burn Rate (LTO)	13 gal/LTO
Jet Fuel Density	6.74 lbs/gal
CO ₂ Emission Factor	9.57 lbs/gal fuel
CH ₄ Emission Factor	0.00027 lbs/gal fuel
N ₂ O Emission Factor	0.00031 lbs/gal fuel
CH ₄ Global Warming Potential	21
N ₂ O Global Warming Potential	310

Activity	Combustion Emission Factors					Fugitive Emission Factors		GHG Emission Factors		
	HC	CO	NOx	SOx	PM	PM10	PM2.5	CO ₂	N ₂ O	CH ₄
Flight (lbs/hr)	1.17	1.40	6.75	0.64	0.18	-	-	1858.94	0.06	0.05
LTO (lbs)	0.60	0.76	0.71	0.09	0.02	3.3	0.33	264.58	0.01	0.01

Activity	Quantity	Combustion Emissions (lbs/day)					Fugitive Emissions (lbs/day)		GHG Emissions (lbs/day)			
		HC	CO	NOx	SOx	PM	PM10	PM2.5	CO ₂	N ₂ O	CH ₄	CO2e
Pole Installation Aerial												
Flight	5.325 hrs/day	6.21	7.44	35.97	3.42	0.98	-	-	9898.84	0.32	0.28	10004.11
LTO	3 LTOs/day	1.80	2.27	2.13	0.27	0.06	9.90	0.99	793.74	0.03	0.02	802.18
Total		8.00	9.71	38.09	3.70	1.05	9.90	0.99	10692.58	0.35	0.30	10806.29

Activity	Working Days	Combustion Emissions (tons)					Fugitive Emissions (tons)		GHG Emissions (metric tons)			
		HC	CO	NOx	SOx	PM	PM10	PM2.5	CO ₂	N ₂ O	CH ₄	CO2e
Pole Installation Aerial	4	0.02	0.02	0.08	0.01	0.00	0.02	0.00	19.44	0.00	0.00	19.65
Total		0.02	0.02	0.08	0.01	0.00	0.02	0.00	19.44	0.00	0.00	19.65

Notes:

Emission factors and fuel burn rates obtained from the FOCA Guidance on Determination of Helicopter Emissions, Edition 2, December 2015.

LTO = Landing and take-off cycle.

Each day of helicopter operations was assumed to contain 3 LTOs, each 13.5 minutes long. The helicopter was assumed to be in flight during the remainder of the day's operations.

Exhaust emission factors for a Bell 214 (single engine, 1850 shp) were based on the exhaust emission factors for the Bell 412 (twin engine, 1800 shp each). Emission factors for the Bell 214 are 50% of the Bell 412 emission factors.

Jet Fuel assumed to contain an average 0.054% wt. sulfur per the FAA's Aviation Emissions, Impacts & Mitigation: a Primer, dated January 2015.

Fugitive dust emission factor source: Dr. J. A. Gillies et. al. December 31, 2007. Particulate Matter Emissions for Dust from Unique Military Activities. Measurements indicated approximately 0.5 kg of PM10 during takeoff and 1 kg during landing. Measurements were conducted in dry, unpaved, desert in Arizona. The model used in testing was a UH-1H Huey, generally similar to the helicopter above. The 0.5 kg takeoff and 1 kg landing emission factor is conservatively assumed for all helicopters. The landing and takeoff surface is assumed to be watered, reducing fugitive dust emissions 55%.

PM2.5/PM10 Factor: Western Governors' Association. September 7, 2006. WRAP Fugitive Dust Handbook. The emission factor for PM2.5 for unpaved roads is 0.1 x PM10 emissions.

Greenhouse gas emission factors and global warming potentials obtained from California Climate Action Registry General Reporting Protocol, Version 3.1, January 2009.

Density of fuel from ExxonMobil Aviation World Jet Fuel Specifications, 2005 Edition.

775-840 kg/m³ = 6.47 - 7.01 lb/gallon

Average Density = 6.74 lb/gallon

HELICOPTER (MD 530F) EMISSION CALCULATIONS

Helicopter Model	MD 530F
Engine Type	RR 250-C30
Fuel S Content by Weight	0.054 %
Fuel Burn Rate (flight)	49 gal/hr
Fuel Burn Rate (LTO)	8 gal/LTO
Jet Fuel Density	6.74 lbs/gal
CO ₂ Emission Factor	9.57 lbs/gal fuel
CH ₄ Emission Factor	0.00027 lbs/gal fuel
N ₂ O Emission Factor	0.00031 lbs/gal fuel
CH ₄ Global Warming Potential	21
N ₂ O Global Warming Potential	310

Activity	Combustion Emission Factors					Fugitive Emission Factors		GHG Emission Factors		
	HC	CO	NOx	SOx	PM	PM10	PM2.5	CO ₂	N ₂ O	CH ₄
Flight (lbs/hr)	1.45	1.80	2.42	0.35	0.07	-	-	1026.71	0.03	0.03
LTO (lbs)	0.64	0.82	0.29	0.06	0.01	3.3	0.33	162.87	0.01	0.00

Activity	Quantity	Combustion Emissions (lbs/day)					Fugitive Emissions (lbs/day)		GHG Emissions (lbs/day)			
		HC	CO	NOx	SOx	PM	PM10	PM2.5	CO ₂	N ₂ O	CH ₄	CO2e
Conductor Installation												
Flight	7.325 hrs/day	10.64	13.21	17.73	2.60	0.52	-	-	7520.65	0.24	0.21	7600.63
LTO	3 LTOs/day	1.92	2.46	0.86	0.17	0.03	9.90	0.99	488.62	0.02	0.01	493.81
Total		12.56	15.67	18.59	2.77	0.54	9.90	0.99	8009.27	0.26	0.23	8094.44

Activity	Working Days	Combustion Emissions (tons)					Fugitive Emissions (tons)		GHG Emissions (metric tons)			
		HC	CO	NOx	SOx	PM	PM10	PM2.5	CO ₂	N ₂ O	CH ₄	CO2e
Conductor Installation	4	0.03	0.03	0.04	0.01	0.00	0.02	0.00	14.56	0.00	0.00	14.72
Total		0.03	0.03	0.04	0.01	0.00	0.02	0.00	14.56	0.00	0.00	14.72

Notes:

Emission factors and fuel burn rates obtained from the FOCA Guidance on Determination of Helicopter Emissions, Edition 2, December 2015.

LTO = Landing and take-off cycle.

Each day of helicopter operations was assumed to contain 3 LTOs, each 13.5 minutes long. The helicopter was assumed to be in flight during the remainder of the day's operations.

Emission factors for a Bell 206L (650 hp) were used for the MD 530F (650 hp) due to their similar engine and horsepower.

Jet Fuel assumed to contain an average 0.054% wt. sulfur per the FAA's Aviation Emissions, Impacts & Mitigation: a Primer, dated January 2015.

Fugitive dust emission factor source: Dr. J. A. Gillies et. al. December 31, 2007. Particulate Matter Emissions for Dust from Unique Military Activities. Measurements indicated approximately 0.5 kg of PM10 during takeoff and 1 kg during landing. Measurements were conducted in dry, unpaved, desert in Arizona. The model used in testing was a UH-1H Huey, generally similar to the helicopter above. The 0.5 kg takeoff and 1 kg landing emission factor is conservatively assumed for all helicopters. The landing and takeoff surface is assumed to be watered, reducing fugitive dust emissions 55%.

PM2.5/PM10 Factor: Western Governors' Association. September 7, 2006. WRAP Fugitive Dust Handbook. The emission factor for PM2.5 for unpaved roads is 0.1 x PM10 emissions.

Greenhouse gas emission factors and global warming potentials obtained from California Climate Action Registry General Reporting Protocol, Version 3.1, January 2009.

Density of fuel from ExxonMobil Aviation World Jet Fuel Specifications, 2005 Edition.

775-840 kg/m³ = 6.47 - 7.01 lb/gallon

Average Density = 6.74 lb/gallon

Indirect Water Usage Emissions

Project Water Demand

Water Truck Capacity 4000 gal

Activity	Estimated Quantity of Equipment per day		Estimated Days per Week of Operation	Estimated Hours per Day of Operation	Estimated Duration of Use (weeks)	Anticipated Total Trucks	Total Water Usage (gal)
Access Road Improvements and Reestablishment	2	Water truck	5	4	5	50	200000
Staging Area	5	Water truck	5	3	5	125	500000

Short-term construction demand (million gallons)

0.7

Use and Emission Factors

Water energy use factor* (CEC, 2005)
10,200 kW-hr/million gallons

Electricity use emission factors (TCR, 2016)

Units	CO2	CH4	N2O
lbs/MW-hr	641.35	0.029	0.006

Project Indirect Electricity Usage

MW-hr 7.14

Indirect Emission Assoc. with Electricity Use (metric tons/year)

	CO2	CH4	N2O	CO2e
Emissions	2.077	0.000	0.000	2.085

Notes: Global Warming Potential for CH4 = 25; GWP for N2O = 298.

* Water energy use factor includes supply, conveyance, treatment, and distribution.

References:

California Energy Commission (CEC), 2005. California's Water - Energy Relationship Prepared in Support of the 2005. Integrated Energy Policy Report Proceeding (04-IEPR-01E), November 2005 (Table 1-3, page 11).

The Climate Registry (TCR), 2016, The Climate Registry Default Emission Factors, Table 14.1, released April 19, 2016.

Total Project Construction Emissions

Emissions Source	CO ₂ e metric tons
Construction Equipment	734.6676
Helicopter	283.28
Water Use Indirect Emissions	2.085267994
Total	1020.032868
Amortized over 30 Years	34.0010956

Humboldt -Bay Humboldt Reconductoring Project Fuel Use

8/20/2019

CO2 emissions from AQ Calculations: Conversion 1 MT = 1000kg

Diesel Sources	CO2 Emissions
Off road equipment	537.6225 MT
Vendor Trucks	47.5142 MT
Haul trucks	0.367 MT
TOTAL Diesel Sources =	585.5037 MT
Convert to kilograms	5.86E+05 kg
Diesel fuel combustion (Per CCAR GRP, 2009) =	10.21 kg CO2/gallon
Diesel Combustion Rate =	57346.10186 gallons

Gasoline Sources	CO2 Emissions
Construction workers	145.5721 MT
Convert to kilograms	1.46E+05 kg
Gasoline fuel combustion (Per CCAR GRP, 2009) =	8.78 kg CO2/gallon
Gasoline combustion rate =	16579.96583 gallons

Jet Fuel Sources	CO2 Emissions
Helicopter	280.3 MT
Convert to kilograms	280300 kg
Jet fuel combustion (Per CCAR GRP, 2009) =	9.75 kg CO2/gallon
Jet fuel combustion rate =	28748.71795 gallons

Notes: a Emissions factors per The Climate Registry 2017 Default Emission Factors (Table 13.1 - US Default CO2 Emission Factors for Transport Fuels)

Appendix D

Biological Resources

TABLE BIO-1
SPECIAL-STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Species	Status ¹	Habitat Description	Blooming Period	Potential to Occur
Coastal marsh milk-vetch <i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	1B.2	Mesic coastal dunes, coastal scrub, coastal salt marshes and swamps, wetlands and stream sides; 0–30 meters (0–98 feet)	April–October	Moderate Potential: Coastal scrub, coastal salt marsh, wetlands and stream sides are present in the project area. One reported occurrence (2003) is approximately 1 mile from the project area.
Lynngbye's sedge <i>Carex lynngbyei</i>	2B.2	Brackish or freshwater marshes and swamps; 0–10 meters (0–33 feet)	April–August	Present: Observed in the project area along banks of brackish waters in 2016, during 2012 surveys, as well as numerous contemporary records in and adjacent to the project area (CDFW, 2019).
Northern meadow sedge <i>Carex praticola</i>	2B.2	Moist to wet meadows and seeps, coastal prairie, and north coastal coniferous forest; 0–3,200 meters (0–10,499 feet)	May–July	Moderate Potential: North coast conifer forest and wet meadow present in the project area; however, the one reported occurrence located near Stephen Hill logging camp/near Ryan Slough is from a 1915 collection (CDFW, 2019).
Humboldt Bay owl's-clover <i>Castilleja ambigua</i> var. <i>humboldtiensis</i>	1B.2	Marshes and swamps; 0–10 feet	April–August	High Potential: Salt marsh habitat is present in the project area. Reported populations less than 1 mile from project area along banks of Ryan Slough near confluence of Freshwater Slough and along Elk River/Swain Slough banks (CDFW, 2019).
Oregon coast paintbrush <i>Castilleja litoralis</i>	2B.2	Coastal bluff scrub, coastal dunes, coastal scrub/sandy; 49–328 feet	June	Moderate Potential: Coastal scrub habitat is present in the project area. Two occurrences within 1 mile from the project area are based on 1918 and 1926 collections; however, one CNDDB record approximately 4 miles from the project area was recently observed (2014).
Point Reyes bird's-beak <i>Chloropyron maritimum</i> subsp. <i>palustre</i>	1B.2	Marshes and swamps; 0–33 feet	June–October	High Potential: Salt marsh habitat present in the project area. Two reported populations within one mile of the project area along saltmarsh habitat of Fisherman's Channel and Elk River Spit (CDFW, 2019).
Menzie's wallflower <i>Erysimum menziesii</i>	FE/CE/1B.1	Coastal dunes; 0-115 feet	March - September	Low Potential: Coastal dune habitat is located approximately one mile or more from the project area.
Minute pocket moss <i>Fissidens pauperculus</i>	1B.2	North coast coniferous forest with damp soil; 33–3,360 feet	n/a	Moderate Potential: North coast coniferous forest in the project area and the nearest occurrence is approximately 2 miles from the project area.
Beach layia <i>Layia carnosa</i>	FE/CE/1B.1	Coastal dunes and scrub, 0-200 feet	March - July	Moderate Potential: Coastal scrub habitat is present within and adjacent to the project area.
Marsh pea <i>Lathyrus palustris</i>	2B.2	Bogs and fens, marshes and swamps, coastal prairies, coastal scrub; 1–100 meters (3–328 feet)	March–August	High Potential: Marsh and coastal scrub habitats are present within the project area; nearest reported occurrence is within 1 mile from the project area near the Elk River Slough (CDFW, 2019).
Western lily <i>Lilium occidentale</i>	FE/CE/1B.1	Marshes and swamps, bogs and fens, coastal scrub, and coastal prairie; edges of sphagnum bogs and forest openings along margins of ephemeral ponds and stream channels; 7–600 feet	June–July	Moderate Potential: Marshes and coastal scrub habitats area present within the project area; several occurrences within 2 miles of project area. One reported population in Fields Landing.
Ghost-pipe <i>Monotropa uniflora</i>	2B.2	Broadleaf upland forest, north coast coniferous forest; 33–1,804 feet	June–September	Moderate Potential: North coast coniferous forest in the project area and reported occurrence is within 1 mile of the project area near Redwood Acres Fairgrounds.

TABLE BIO-1
SPECIAL-STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Species	Status ¹	Habitat Description	Blooming Period	Potential to Occur
Howell's montia <i>Montia howellii</i>	2B.2	Meadows and seeps, north coast coniferous forest, mesic vernal pools, and roadsides; 0–2,395 feet	March–May	Moderate Potential: North coast conifer forest present in the project area, and nearest reported occurrence is within 1 mile of the project.
Coast checkerbloom <i>Sidalcea oregana</i> subsp. <i>eximia</i>	1B.2	Meadows, wetland-riparian; 0–4,000 feet	June–August	Moderate Potential: Wetland riparian habitat present within the project area, nearest reported occurrence is 1 mile from the project and documented as occurring along ditches in the Elk River floodplain (CDFW, 2019).
Western sand-spurrey <i>Spergularia canadensis</i> var. <i>occidentalis</i>	2B.1	Coastal salt marshes and swamps; 0–19 feet	June–August	Moderate Potential: Coastal salt marsh habitat is present within the project area. Nearest population located along Freshwater Slough banks and within the South Spit.
Alpine marsh violet <i>Viola palustris</i>	2B.2	Coastal bogs and fens, coastal scrub; 0–492 feet	March–August	Moderate Potential: Coastal scrub habitat is present within the project area, but the nearest reported occurrence is based on collections from 1923 or earlier. Site botanical surveys in 2012 and 2016 did not identify this species (Stillwater Sciences, 2019a).

¹ Explanation of state and federal listing codes:

Federal listing codes:

-FE: Federally Endangered Species

-FT: Federally Threatened Species

California listing codes:

-CE: State-listed as Endangered

California Rare Plant Rank:

-1B.1: Rare, threatened or endangered in California and elsewhere; seriously threatened in California

-1B.2: Rare, threatened or endangered in California and elsewhere; fairly threatened in California

-2B.1: Rare, threatened or endangered in California, but more common elsewhere; seriously threatened in California

-2B.2: Rare, threatened or endangered in California, but more common elsewhere; moderately threatened in California

TABLE BIO-2
SPECIAL-STATUS FISH AND WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Species	Status ¹	Habitat Description	Potential to Occur
Fish			
Pacific lamprey (<i>Entosphenus tridentatus</i>)	SSC	Found in coastal streams primarily north of San Luis Obispo; prefers gravel-bottomed streams at the upstream end of riffle habitat	High Potential: Adult migration and juvenile out-migration occur in Ryan Slough and Elk River; spawning documented in Ryan Creek and Elk River upstream of the project area.
North American green sturgeon, southern DPS (<i>Acipenser medirostris</i>)	FT/SOC/SSC	Pacific coast of North America from Mexico to the Bering Sea. Large mainstem rivers with cool water and cobble, clean sand, or bedrock for spawning. Sub-adult and adults forage in lower reaches of large rivers, estuaries, and the nearshore marine environment.	Moderate Potential: Watercourses and sloughs within the project area have relatively small channel sizes and shallow conditions for this species, but it is known to use coastal streams in the vicinity and has critical habitat present in the project area.
Longfin smelt (<i>Spirinchus thaleichthys</i>)	FC/ST	Local populations in Humboldt Bay, Eel River estuary and Klamath River estuary. Adults in large bays, estuaries, and nearshore coastal areas; migrate into freshwater rivers to spawn; salinities of 15–30 ppt.	Moderate Potential: Suitable brackish water migratory habitat in Elk River, Martin Slough, and Ryan Slough for this species.
Coho salmon, southern Oregon/ northern California coast ESU (<i>Oncorhynchus kisutch</i>)	FT/CT	Spawn in coastal streams and large mainstem rivers (i.e., Klamath/Trinity rivers) in riffles and pool tails-outs and rear in pools ≥ 3 feet deep with overhead cover with high levels of oxygen and temperatures between 50–59°F.	High Potential: Migration and juvenile rearing habitat present in Elk River and Ryan Slough; juvenile rearing habitat present in Martin Slough.
Chinook salmon, California coastal ESU (<i>Oncorhynchus tshawytscha</i>)	FT	Wild coastal, spring, and fall-run Chinook found in streams and rivers between Redwood Creek in Humboldt County to the north and the Russian River in Sonoma County to the south.	Present: Adult migration and juvenile rearing habitat present in Elk River and Ryan Slough; juvenile rearing habitat present in Martin Slough.
Steelhead, northern California Coast DPS (<i>Oncorhynchus mykiss</i>)	FT	Inhabits small coastal streams to large mainstem rivers with gravel-bottomed, fast-flowing habitat for spawning. However, habitat criteria for different life stages (spawning, fry rearing, juvenile rearing) can vary significantly.	High Potential: Adult migration and juvenile rearing habitat present in Elk River, Martin Slough, and Ryan Slough
Coastal cutthroat trout (<i>Oncorhynchus clarki clarki</i>)	SSC	Small, low-gradient coastal streams and estuaries from northern Oregon to the Eel River, California to the south. Shaded streams with water temperatures below 64°F and small gravel for spawning.	High Potential: Adult migration and juvenile rearing habitat present in Elk River, Martin Slough, and Ryan Slough.
Tidewater goby (<i>Eucyclogobius newberryi</i>)	FE/SSC	Coastal lagoons and the uppermost zone of brackish large estuaries; found in water less than 3 feet deep and salinities less than 12 ppt from Tillas Slough (mouth of the Smith River, Del Norte County) to Agua Hedionda Lagoon (northern San Diego County).	Present: Previously found in or near Elk River, Martin Slough, and Ryan Slough. Critical habitat present in the project area.
Amphibians			
Southern torrent salamander (<i>Rhyacotriton variegatus</i>)	SSC	Coastal redwood, Douglas-fir, mixed conifer, montane riparian, and montane hardwood-conifer habitats. Seeps and small streams in coastal redwood, Douglas-fir, mixed conifer, montane riparian, and montane hardwood-conifer habitats. Seeps and springs need to be relatively unembedded with fine sediment.	Moderate Potential: May occur in rocky seeps and springs in the project area.
Northern red-legged frog (<i>Rana aurora</i>)	SSC	Humid forests, woodlands, grasslands, and streamsides usually near dense cover. Generally near permanent water but can be found far from water in damp woods and meadows during non-breeding season.	Present. Detected in or near the project area during site surveys near Buhne Slough and its tributaries between 2014 and 2017; observed in Martin Slough and its tributaries in 2012 (Stillwater Sciences, 2019a).

TABLE BIO-2
SPECIAL-STATUS FISH AND WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Species	Status ¹	Habitat Description	Potential to Occur
Reptiles			
Green sea turtle (<i>Chelonia mydas</i>)	FT	Found worldwide primarily in tropical and subtropical waters. Adults found in shallow, coastal waters with lush seagrass beds, such as inshore bays, lagoons and shoals with lush seagrass meadows.	Low Potential. Not recorded in project area and typically observed in warmer waters. May occasionally stray into Humboldt Bay.
Western pond turtle (<i>Emys marmorata</i>)	SSC	Ponds, marshes, rivers, streams, and irrigation ditches with abundant vegetation, and either rocky or muddy bottoms, in woodland forest and grasslands below 6,000-foot elevation, including brackish waters. Basking sites are located on logs, rocks, cattail mats, and exposed banks and egg-laying sites are located on grassy uplands near water.	High Potential: Highly suitable aquatic habitat and confirmed sightings in the vicinity of the project area.
Birds			
White-tailed kite (<i>Elanus leucurus</i>)	FP	Yearlong resident in coastal and valley lowlands. Inhabits herbaceous and open areas of most habitats and often found in agricultural areas.	Present: Suitable nesting and foraging habitat present, frequent sightings throughout project area (CDFW, 2019).
Bald eagle (<i>Haliaeetus leucocephalus</i>)	FD/BGEPA/CE/ FP	Associated with large, old-growth or dominant live trees near ocean shore, lake margins, and rivers for both nesting and wintering.	Potential to Occur: Foraging habitat and marginal nesting habitat in project area; observations of flyovers are relatively common (Stillwater Sciences, 2019a).
northern harrier (<i>Circus cyaneus</i>)	SSC	Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Permanent resident of coastal areas	Present: Commonly observed in project area (eBird, 2019) and suitable nesting and foraging habitat present.
American peregrine falcon (<i>Falco peregrinus anatum</i>)	FD/SD/FP	Inhabits wetlands, woodlands, cities, agricultural lands, and coastal areas with cliffs near nesting sites. Nests primarily in mountainous areas with cliffs and known to utilize tall man-made structures (e.g., bridges) that provide suitable ledges and broken top trees (rarely).	Present: Observed in the project area, foraging only (Stillwater Sciences, 2019a). Suitable nesting habitat is not present in the project area.
Western snowy plover (<i>Charadrius nivosus nivosus</i>)	FT/SSC/BCC	Sandy coastal beaches, salt pans, coastal dredged spoils sites, dry salt ponds, salt pond levees and gravel bars. Nests in sandy substrate and forages in sandy marine and estuarine bodies.	Low Potential. Suitable sandy beach and salt pan nesting habitat is not present in the project area, though species may forage nearby.
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	FT/SSC/BCC	Inhabits extensive deciduous riparian thickets or forests with dense, low-level or understory foliage, which abut on slow-moving watercourses, backwaters, or seeps. Willow is almost always a dominant component of vegetation. Nest sites in dense low-level or understory foliage, high humidity, and wooded foraging spaces.	Unlikely. Known breeding locations are outside of the project area. There are no occurrence records located within one half mile of the project area.
Northern spotted owl (<i>Strix occidentalis caurina</i>)	FT/ST	Typically found in large, contiguous stands of mature and old-growth coniferous forest with dense multi-layered structure.	Moderate Potential: Species may forage in project area; Green Diamond Resource Company protocol-level survey results show no nesting within at least 0.5 miles of project area (CDFW, 2019; Stillwater Sciences, 2019a).
Vaux's swift (<i>Chaetura vauxi</i>)	SSC	Summer resident of northern California; nests in the Coast Ranges from Sonoma County north and very locally south to Santa Cruz County; also found in the Sierra Nevada and possibly in the Cascade Range. Associated with redwood and Douglas-fir habitats with large snags, especially forest with large basal hollows and chimney trees.	Present: Nesting and foraging habitat in project area in redwood forest habitats; documented occurrences in project area and species observed during 2012 wildlife surveys (Stillwater Sciences, 2019a).

TABLE BIO-2
SPECIAL-STATUS FISH AND WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Species	Status ¹	Habitat Description	Potential to Occur
Olive-sided flycatcher (<i>Contopus cooperi</i>)	SSC	Inhabitats montane and coniferous forests (e.g., Douglas-fir, redwood, red fir, and lodgepole pine), often along edges and openings.	Present: Documented in the project area in montane forest; may nest and/or forage in project area in summer (Stillwater Sciences, 2019a).
Willow flycatcher (<i>Empidonax traillii</i>)	SE	Typically breeds in wet meadows and montane riparian habitats (with a significant shrub component near a taller overstory) from 2,000-8,000 feet in elevation from Tulare County north, along the western Sierra Nevada and Cascades. Common spring (mid-May to early June) and fall (mid-August to early September) migrant in riparian habitats at lower elevations, including the north coast of California.	Moderate Potential: Documented in the vicinity of the project area, most often during spring and/or fall migration (Stillwater Sciences, 2019a); nesting unlikely in insufficiently dense riparian habitat.
Marbled murrelet (<i>Brachyramphus marmoratus</i>)	FT/SE	Only breeds along west coast of North America. Nests in mature, dense forests of redwood and Douglas fir, preferably old growth. Can be seen as far as 4 – 5 miles inland. Prefers to nest in tall trees, on branches in mats of moss and lichen.	Moderate Potential. Suitable nesting habitat is not present in the project area but is present to the east and south in Headwaters grove. Murrelets flying from feeding grounds at sea to nesting areas may transit through the project area.
Yellow warbler (<i>Setophaga petechial</i>)	SSC	Breeds in riparian woodlands, montane riparian, coastal scrub, and redwood up to 8,000 feet. This species breeds throughout the north coast. In general, occupies riparian vegetation in close proximity to water along streams and in wet meadows and are found in willows (<i>Salix</i> spp.) and cottonwoods (<i>Populus</i> spp.).	Moderate Potential: Suitable breeding habitat present in the project area; documented occurrences in the vicinity of the project area (Stillwater Sciences, 2019a). May nest or forage in project area in summer.
Mammals			
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	SSC	Found throughout California in all but subalpine and alpine habitats. Roosts in cavernous habitats, usually in tunnels, caves, buildings, mines, and basal hollows of trees, but also rock shelters, preferentially close to water.	Moderate Potential: Suitable foraging and roosting habitat is present in the project area and one CNDDDB record approximately 1.8 miles from the project area (CDFW, 2019).
Pallid bat (<i>Antrozous pallidus</i>)	SSC	Found throughout California. Roosts in rock crevices, outcrops, cliffs, mines, and caves; trees (underneath exfoliating bark of pine and oak) and in basal hollows; and a variety of vacant and occupied structures (e.g., bridges) or buildings.	Moderate Potential: Suitable foraging habitat throughout project area; roosting habitat is present in numerous trees and bridges.
Fisher (<i>Pekania pennant</i>)	FPT/SSC	Occurs in intermediate to large-tree stages of coniferous forest and deciduous-riparian habitats with a high percentage of canopy closure. Fisher den in a variety of protected cavities, brush piles, logs or under an upturned tree, especially in hollow logs, trees, and snags.	Moderate Potential. Numerous occurrence records in the vicinity of the project area in riparian habitats and coniferous forest areas.

¹ Explanation of state and federal listing codes:

Federal listing codes:

-BGEPA: Bald and Golden Eagle Protection Act
-FC: Federal Candidate Species
-FD: Federally Delisted
-FE: Federally Endangered Species
-FT: Federally Threatened Species
-FPT: Federally Proposed as Threatened
-SOC: Species of Concern (National Marine Fisheries Service)

California listing codes:

-CE: State-listed as Endangered
-CT: State-listed as Threatened
-FP: Fully Protected
-SC: State Candidate
-SD: State Delisted
-SSC: State Species of Special Concern
Present, High Potential, Moderate Potential, Low Potential, Absent

Appendix E

Tribal Consultation



No.	Date	From	To	Type	Subject
1	April 17, 2019	Robin Hoffman (Environmental Science Associates [ESA])	Native American Heritage Commission (NAHC); Gayle Totton (NAHC)	email with formal request and map	Sacred Lands File (SLF) search request and Native American contacts list request.
2	April 18, 2019	Gayle Totton	Robin Hoffman	email with attachment	SLF search results (negative) and Native American contacts list (13).
3	May 2, 2019	John Edward Forsythe (California Public Utilities Commission [CPUC])	Paul Ammon (Tsnungwe Council)	letter with map, via USPS certified mail	Project information and request for information on or concerns about cultural resources that may be impacted.
4	May 2, 2019	John Edward Forsythe	Barry Brenard (Bear River Band of Rohnerville Rancheria [Bear River])	letter with map, via USPS certified mail	Project information and request for information on or concerns about cultural resources that may be impacted.
5	May 2, 2019	John Edward Forsythe	Claudia Brundin (Blue Lake Rancheria)	letter with map, via USPS certified mail	Project information and request for information on or concerns about cultural resources that may be impacted.
6	May 2, 2019	John Edward Forsythe	Rosie Clayburn (Yurok Tribe)	letter with map, via USPS certified mail	Project information and request for information on or concerns about cultural resources that may be impacted.
7	May 2, 2019	John Edward Forsythe	Erika Cooper (Bear River)	letter with map, via USPS certified mail	Project information and request for information on or concerns about cultural resources that may be impacted.
8	May 2, 2019	John Edward Forsythe	Janet Eidsness (Blue Lake Rancheria)	letter with map, via USPS certified mail	Project information and request for information on or concerns about cultural resources that may be impacted.
9	May 2, 2019	John Edward Forsythe	Ted Hernandez (Wiyot Tribe)	letter with map, via USPS certified mail	Project information and request for information on or concerns about cultural resources that may be impacted.
10	May 2, 2019	John Edward Forsythe	Ryan Jackson (Hoopa valley Tribe)	letter with map, via USPS certified mail	Project information and request for information on or concerns about cultural resources that may be impacted.
11	May 2, 2019	John Edward Forsythe	Virgil Moorehead (Big Lagoon Rancheria)	letter with map, via USPS certified mail	Project information and request for information on or concerns about cultural resources that may be impacted.
12	May 2, 2019	John Edward Forsythe	Thomas O'Rourke (Yurok Tribe)	letter with map, via USPS certified mail	Project information and request for information on or concerns about cultural resources that may be impacted.
13	May 2, 2019	John Edward Forsythe	Garth Sundberg (Cher-Ae Heights Indian Community of the Trinidad Rancheria)	letter with map, via USPS certified mail	Project information and request for information on or concerns about cultural resources that may be impacted.
14	May 2, 2019	John Edward Forsythe	Tom Torma (Wiyot Tribe)	letter with map, via USPS certified mail	Project information and request for information on or concerns about cultural resources that may be impacted.
15	May 2, 2019	John Edward Forsythe	NAGPRA Coordinator (Yurok Tribe)	letter with map, via USPS certified mail	Project information and request for information on or concerns about cultural resources that may be impacted.
16	May 6, 2019	Janet Eidsness	Stephanie Green, John Edward Forsythe (CPUC); Stephanie Cimino (Pacific Gas & Electric [PG&E])	email	Verifying that Eidsness received the 05/02/2019 letter regarding the Project. Stated that this is the first time Eidsness had heard of the Project. Asked which tribes were contacted. Requested that tribes be contacted prior to fieldwork. Requested Phase 1 survey report.
17	May 6, 2019	John Edward Forsythe	Janet Eidsness	email	Stated that cultural review for the Project has just started. Stated that ESA will contact the tribe to provide requested information, and that PG&E may also coordinate with the tribe.
18	May 6, 2019	Stephanie Cimino	Janet Eidsness	email	Stated that Leslie Sakowicz (PG&E) will reach out to tribe to provide additional information on the Project, but that she believes that the tribe (and other relevant tribes) were previously contacted regarding the Project.
19	May 7, 2019	Leslie Sakowicz (PG&E)	Janet Eidsness	call	Review of Project and previous tribal coordination efforts for Project. Eidsness stated that she does remember the Project and previous coordination efforts for it and that the tribe does not have any concerns regarding the Project.

No.	Date	From	To	Type	Subject
20	May 7, 2019	Leslie Sakowicz	Janet Eidsness	email	Stated that the recent call with tribe showed that the tribe recalls previously coordinating with PG&E on the Project. Requested that Eidsness confirm the information provided in the email (summary of previous tribal coordination efforts for Project) and that the tribe does not have any concerns regarding the Project.
21	May 7, 2019	Janet Eidsness	Leslie Sakowicz	email	Stated that she does remember the Project and previous coordination efforts for it and that the tribe does not have any concerns regarding the Project. Requested that Inadvertent Archaeological Discovery Protocol and a pre-construction cultural resources awareness training be included as conditions for the Project.
22	May 13, 2019	Robin Hoffman	Janet Eidsness; cc-Erika Cooper, Ted Hernandez	email	Requested confirmation that tribe does not have any concerns regarding the project.
23	May 14, 2019	Janet Eidsness	Robin Hoffman; cc-Erika Cooper, Ted Hernandez	email	Confirmed that tribe does not have any concerns regarding the project.
24	May 15, 2019	Erika Cooper	Robin Hoffman; cc-Janet Eidsness, Ted Hernandez	email	Confirmed that tribe does not have any concerns regarding the project.
25	May 15, 2019	Ted Hernandez	Robin Hoffman; cc-Janet Eidsness, Erika Cooper	email	Confirmed that tribe does not have any concerns regarding the project.
26	June 3, 2019	Garth Sundberg	John Edward Forsythe	letter	The project is outside the geographic area of concern for the Cher-Ae Heights Indian Community of the Trinidad Rancheria and, therefore, the tribe does not have an interest in the project.

Robin Hoffman

From: Robin Hoffman
Sent: Wednesday, April 17, 2019 10:12 AM
To: Gayle Totton (Gayle.Totton@nahc.ca.gov); NAHC (nahc@nahc.ca.gov)
Subject: SLF Search and Native American Contacts: Humboldt Bay-Humboldt 60 kV Reconductoring Project
Attachments: D120812.04_NAHC_request.pdf

I would like to request a Sacred Lands File search and list of Native American contacts for the ***Humboldt Bay-Humboldt 60 kV Reconductoring Project***, in Humboldt County. This request is to support cultural resources mitigation measures required the California Environmental Quality Act. The formal request form and project location map are attached. Please let me know if you have any questions.
Thank you,

Robin Hoffman, MA, RPA
Senior Archaeologist

ESA | [Environmental Science Associates](#)
Celebrating 50 Years of Work that Matters!

1425 N. McDowell Ave., Suite 200
Petaluma, CA, 94954
707.795.0900 main
707.796.7006 direct
707.494.3349 mobile
rhoffman@esassoc.com | esassoc.com

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Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission

1550 Harbor Blvd, Suite 100

West Sacramento, CA 95691

916-373-3710

916-373-5471 – Fax

nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Request Date: April 17, 2019

Project: Humboldt Bay-Humboldt 60 kV Reconductoring Project

County: Humboldt

USGS Quadrangle Name: Arcata South, CA; Eureka, CA; Fields Landing, CA

Township: 4N; 5N; 5N **Range:** 1W; 1W; 1E (Humboldt BM) **Section(s):** 3, 8, 9; 34, 35, 36; 30, 31

Company/Firm/Agency: Environmental Science Associates

Street Address: 1425 N. McDowell Blvd., Ste. 200, Petaluma, CA 94954

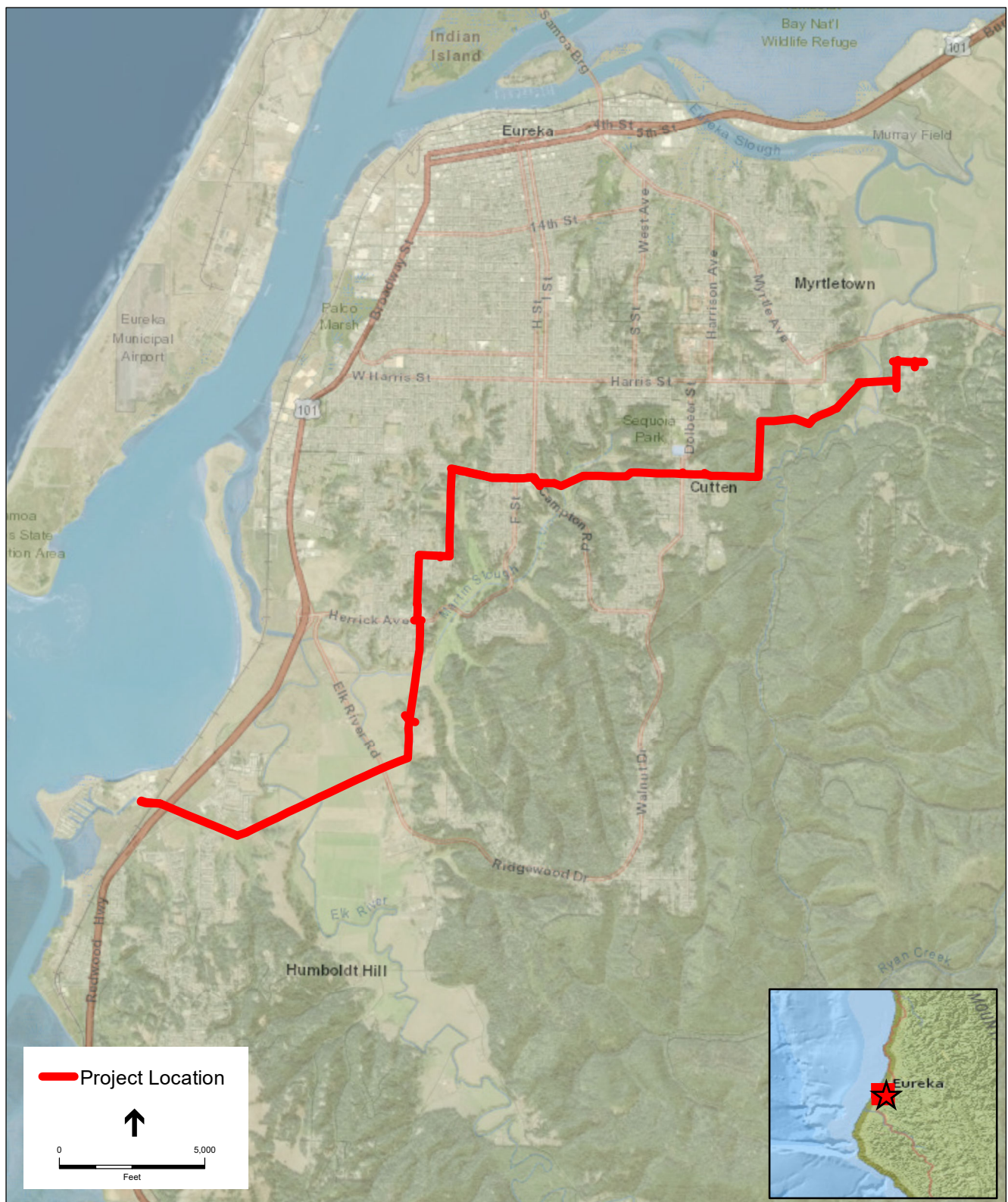
Phone: 707-796-7006

Fax: 707-795-0902

Email: rhoffman@esassoc.com

Project Description:

The Pacific Gas & Electric Company (Applicant) proposes the Humboldt Bay-Humboldt 60 kV Reconductoring Project (Project), which would replace the conductor and poles on approximately 7.8 miles of the existing 8.4-mile Humboldt Bay–Humboldt #1 60 kV power line between Humboldt Bay Substation, just south of Eureka, and Humboldt Substation, just east of Eureka. The Project is subject to compliance with the California Environmental Quality Act (CEQA), with the California Public Utilities Commission acting as lead reviewing agency for CEQA. Please include in your results a list of Native American representatives that should be contacted about potential resources of importance to Native Americans to support compliance with CEQA.



SOURCE: ESRI, 2019; ESA, 2019

Humboldt Bay-Humboldt #1 60kV Reconductoring Project. 120812.04

Figure 1

NAHC Correspondence

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: <http://www.nahc.ca.gov>



April 18, 2019

Robin Hoffman
Environmental Science Associates

VIA Email to: rhoffman@esassoc.com

RE: Humboldt Bay- Humboldt 60 kV Reconductoring Project, City of Eureka; Arcata
South, Eureka, and Fields Landing USGS Quadrangles, Humboldt County, California.

Dear Ms. Hoffman:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: gayle.totton@nahc.ca.gov.

Sincerely,

A handwritten signature in cursive script that reads 'Gayle Totton'.

Gayle Totton, B.S., M.A., Ph.D.
Associate Governmental Program Analyst

Attachment

**Native American Heritage Commission
Native American Contact List
Humboldt County
4/18/2019**

***Bear River Band of Rohnerville
Rancheria***

Barry Brenard, Chairperson
266 Keisner Road
Loleta, CA, 95551
Phone: (707) 733 - 1900
Fax: (707) 733-1727

Mattole
Wiyot

***Cher-Ae Heights Indian
Community of the Trinidad
Rancheria***

Garth Sundberg, Chairperson
P.O. Box 630
Trinidad, CA, 95570-0630
Phone: (707) 677 - 0211
Fax: (707) 677-3921
gsundberg@TrinidadRancheria.co
m

Miwok
Tolowa
Yurok

***Bear River Band of Rohnerville
Rancheria***

Erika Cooper, Tribal Historic
Preservation Officer
266 Keisner Road
Loleta, CA, 95551
Phone: (707) 733 - 1900
Fax: (707) 733-1727
erikacooper@brb-nsn.gov

Mattole
Wiyot

Hoopa Valley Tribe

Ryan Jackson, Chairperson
P.O. Box 1348
Hoopa, CA, 95546
Phone: (530) 625 - 4211
Fax: (530) 625-4594

Hoopa

Big Lagoon Rancheria

Virgil Moorehead, Chairperson
P. O. Box 3060
Trinidad, CA, 95570
Phone: (707) 826 - 2079
Fax: (707) 826-1737
vmoorehead@earthlink.net

Tolowa
Yurok

Tsnungwe Council

Paul Ammon, Chairperson
P.O. Box 373
Salyer, CA, 95563
Phone: (530) 739 - 3828
Fax: (530) 629-3356
tsnungweofcalifornia@gmail.com

Hupa

Blue Lake Rancheria

Claudia Brundin, Chairperson
P.O. Box 428
Blue Lake, CA, 95525
Phone: (707) 668 - 5101
Fax: (707) 668-4272
bmobbs@bluelakerancheria-
nsn.gov

Tolowa
Wiyot
Yurok

Wiyot Tribe

Ted Hernandez, Chairperson
1000 Wiyot Drive
Loleta, CA, 95551
Phone: (707) 733 - 5055
Fax: (707) 733-5601
ted@wiyot.us

Wiyot

Blue Lake Rancheria

Janet Eidsness, Tribal Historic
Preservation Officer
P.O. Box 428
Blue Lake, CA, 95525-0428
Phone: (707) 668 - 5101
Fax: (707) 668-4272
jeidsness@bluelakerancheria-
nsn.gov

Tolowa
Wiyot
Yurok

Wiyot Tribe

Tom Torma, Tribal Historic
Preservation Officer
1000 Wiyot Drive
Loleta, CA, 95551
Phone: (707) 733 - 5055
Fax: (707) 733-5601
tom@wiyot.us

Wiyot

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Humboldt Bay- Humboldt 60 kV Reconductoring Project, Humboldt County.

**Native American Heritage Commission
Native American Contact List
Humboldt County
4/18/2019**

Yurok Tribe

Yurok Tribe, NAGPRA
Coordinator
P.O. Box 1027 Yurok
Klamath, CA, 95548
Phone: (707) 482 - 1350
Fax: (707) 482-1377

Yurok Tribe

Thomas O'Rourke, Chairperson
PO Box 1027 Yurok
Klamath, CA, 95548
Phone: (707) 482 - 1350
Fax: (707) 482-1377
torourke@yuroktribe.nsn.gov

Yurok Tribe

Rosie Clayburn, Tribal Historic
Preservation Officer
190 Klamath Blvd. P. O. Box 1027 Yurok
Klamath, CA, 95548
Phone: (707) 482 - 1350
rclayburn@yuroktribe.nsn.us

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Humboldt Bay- Humboldt 60 kV Reconductoring Project, Humboldt County.

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 2, 2019

Paul Ammon, Chairperson
Tsnungwe Council
P.O. Box 373
Salyer, CA 95563

Re: CPUC Review of Pacific Gas & Electric's Permit to Construct Application for the Humboldt Bay-Humboldt 60 kV Reconductoring Project

Honorable Chairperson Ammon:

The State of California Public Utilities Commission (CPUC) is undertaking review of Pacific Gas & Electric's (PG&E['s]) Permit to Construct Application for the Humboldt Bay-Humboldt 60 kilovolt (kV) Reconductoring Project (Project), described below. PG&E filed a CPUC application (19-02-004), completed on April 18, 2019, seeking a permit to construct the Project. Consideration of the Project is subject to the California Environmental Quality Act (CEQA).

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PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



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If you have any comments or concerns regarding the Project, or would like to request any additional information, please contact the CPUC at the address below or via email to John Forsythe (john.forsythe@cpuc.ca.gov). You may also contact Stephanie Green, the CPUC Tribal Liaison. She is readily available to assist you with this or any other tribal matter. Ms. Green is copied here, will be included in all CPUC correspondence regarding tribal matters, and can be reached at 415-703-5245 and Stephanie.Green@cpuc.ca.gov.

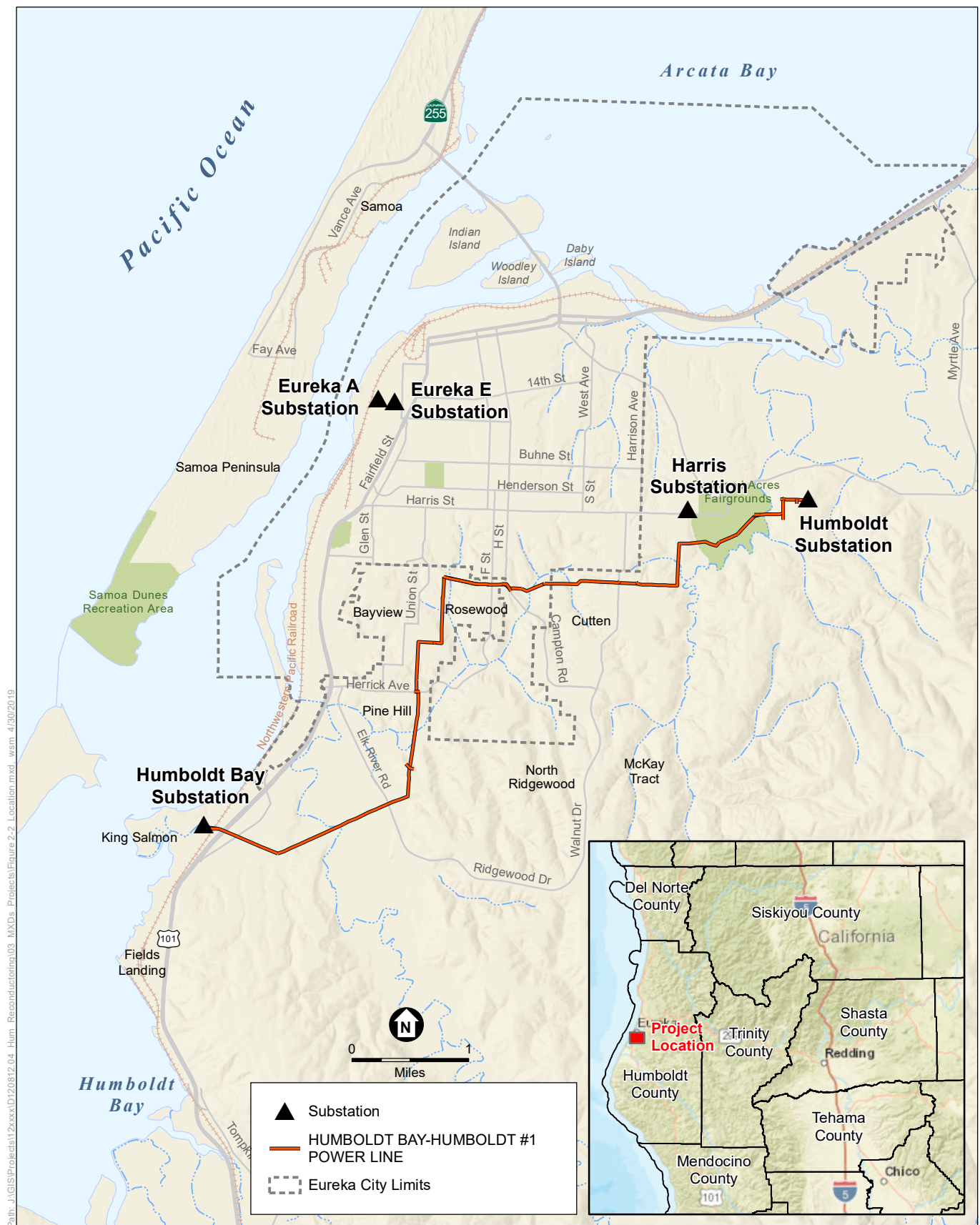
Sincerely,

A handwritten signature in black ink that reads "John E. Forsythe".

John Edward Forsythe, AICP
Project Manager
California Public Utilities Commission
300 Capital Mall, Suite 518
Sacramento, CA 95814

cc: Stephanie Green, CPUC Tribal Liaison

Attachments: Figure 1 – Project Location



SOURCE: PG&E

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 1
Project Location

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SALYER, CA 95563 OFFICIAL USE

Certified Mail Fee \$3.50
\$42.80
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$0.00
☐ Return Receipt (electronic) \$0.00
☐ Certified Mail Restricted Delivery \$0.00
☐ Adult Signature Required \$0.00
☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.55

Total Postage and Fees \$6.85

Sent To Paul Ammon, Chairperson, Tsnungwe Council
Street and Apt. No., or PO Box No. PO BOX 375
City, State, ZIP+4® Salyer, CA 95563

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions



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PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 2, 2019

Barry Brenard, Chairperson
Bear River Band of Rohnerville Rancheria
266 Keisner Road
Loleta, CA 95551

Re: CPUC Review of Pacific Gas & Electric's Permit to Construct Application for the Humboldt Bay-Humboldt 60 kV Reconductoring Project

Honorable Chairperson Brenard:

The State of California Public Utilities Commission (CPUC) is undertaking review of Pacific Gas & Electric's (PG&E['s]) Permit to Construct Application for the Humboldt Bay-Humboldt 60 kilovolt (kV) Reconductoring Project (Project), described below. PG&E filed a CPUC application (19-02-004), completed on April 18, 2019, seeking a permit to construct the Project. Consideration of the Project is subject to the California Environmental Quality Act (CEQA).

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PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



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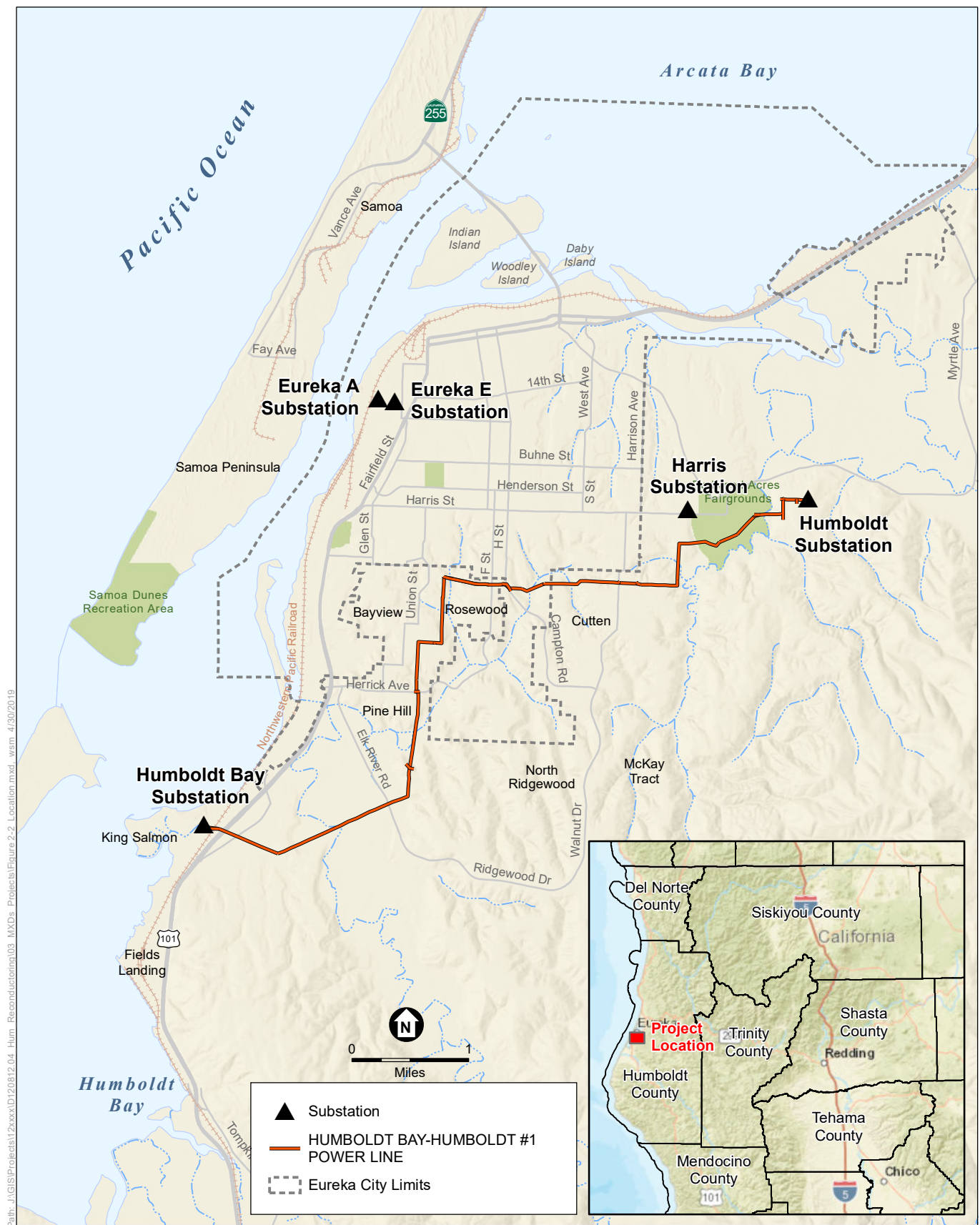
Sincerely,

A handwritten signature in black ink that reads "John E. Forsythe".

John Edward Forsythe, AICP
Project Manager
California Public Utilities Commission
300 Capital Mall, Suite 518
Sacramento, CA 95814

cc: Stephanie Green, CPUC Tribal Liaison

Attachments: Figure 1 – Project Location



SOURCE: PG&E

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 1
Project Location

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LOLETA, CA 95551

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Certified Mail Fee
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Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$10.00
☐ Return Receipt (electronic) \$0.00
☐ Certified Mail Restricted Delivery \$0.00
☐ Adult Signature Required \$0.00
☐ Adult Signature Restricted Delivery \$0.00

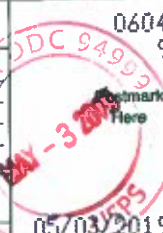
Postage
\$0.55

Total Postage and Fees
\$6.85

Sent To
Barry Brenard, Bear River Band
Street and Apt. No. or PO Box No.
200 Kershner Road
City, State ZIP+4®
LOLETA, CA 95551

PS Form 3800, April 2015 PSN 7530-02-000-9047

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PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 2, 2019

Claudia Brundin, Chairperson
Blue Lake Rancheria
P.O. Box 428
Blue Lake, CA 95525

Re: CPUC Review of Pacific Gas & Electric's Permit to Construct Application for the Humboldt Bay-Humboldt 60 kV Reconductoring Project

Honorable Chairperson Brundin:

The State of California Public Utilities Commission (CPUC) is undertaking review of Pacific Gas & Electric's (PG&E['s]) Permit to Construct Application for the Humboldt Bay-Humboldt 60 kilovolt (kV) Reconductoring Project (Project), described below. PG&E filed a CPUC application (19-02-004), completed on April 18, 2019, seeking a permit to construct the Project. Consideration of the Project is subject to the California Environmental Quality Act (CEQA).

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PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3298



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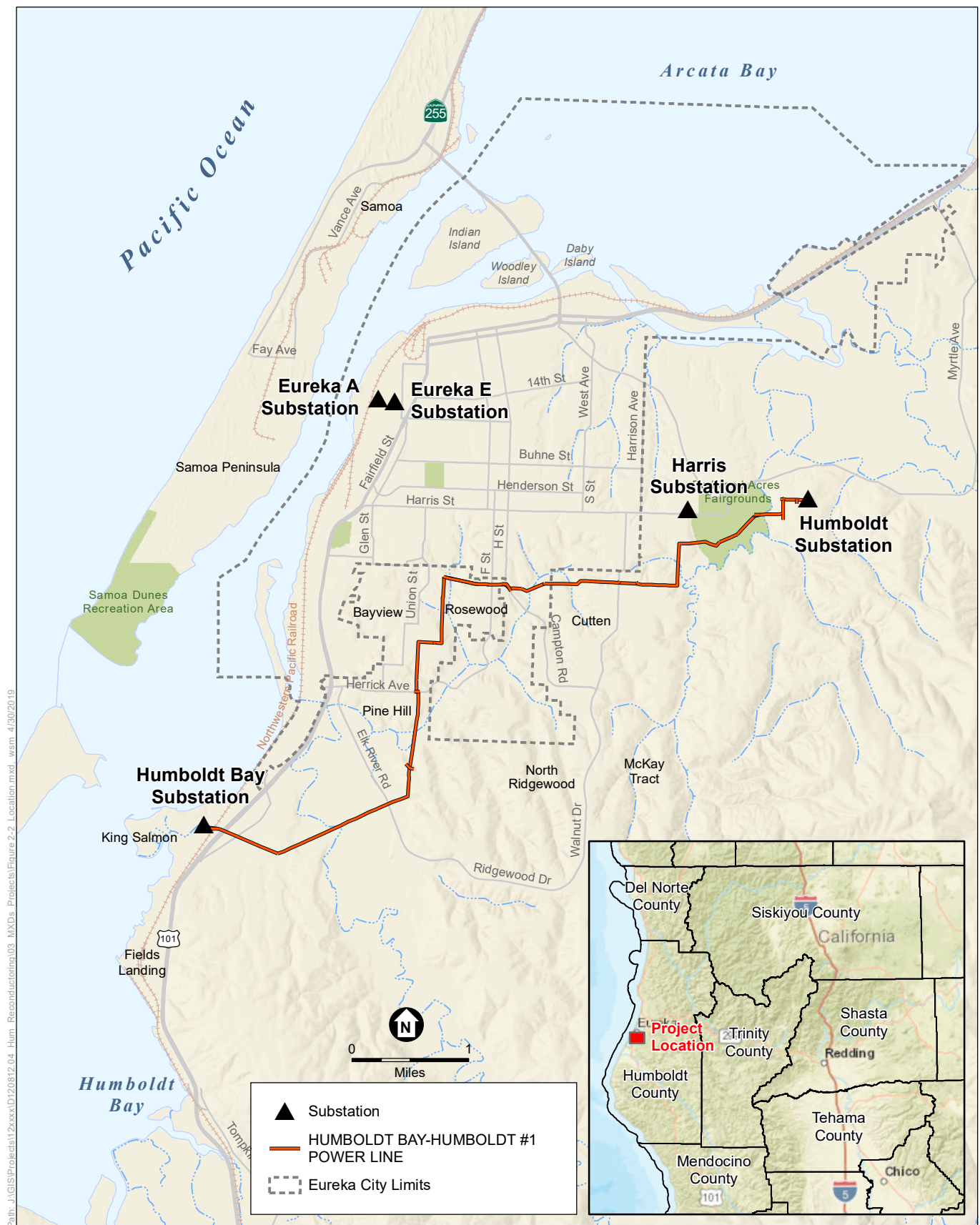
Sincerely,

A handwritten signature in black ink that reads "John E. Forsythe".

John Edward Forsythe, AICP
Project Manager
California Public Utilities Commission
300 Capital Mall, Suite 518
Sacramento, CA 95814

cc: Stephanie Green, CPUC Tribal Liaison

Attachments: Figure 1 – Project Location



SOURCE: PG&E

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 1
Project Location

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BLUE LAKE, CA 95525

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<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

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Postmark
05/03/2019

Postage	\$0.55
Total Postage and Fees	\$6.85

Part 7c
To: Claudia Brundin, Blue Lake Ranch
PO Box 428
Blue Lake, CA 95525
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 2, 2019

Rosie Clayburn, Tribal Historic Preservation Officer
Yurok Tribe
P.O. Box 1027
Klamath, CA 95548

Re: CPUC Review of Pacific Gas & Electric's Permit to Construct Application for the Humboldt Bay-Humboldt 60 kV Reconductoring Project

Dear Ms. Clayburn:

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SAN FRANCISCO, CA 94102-3298



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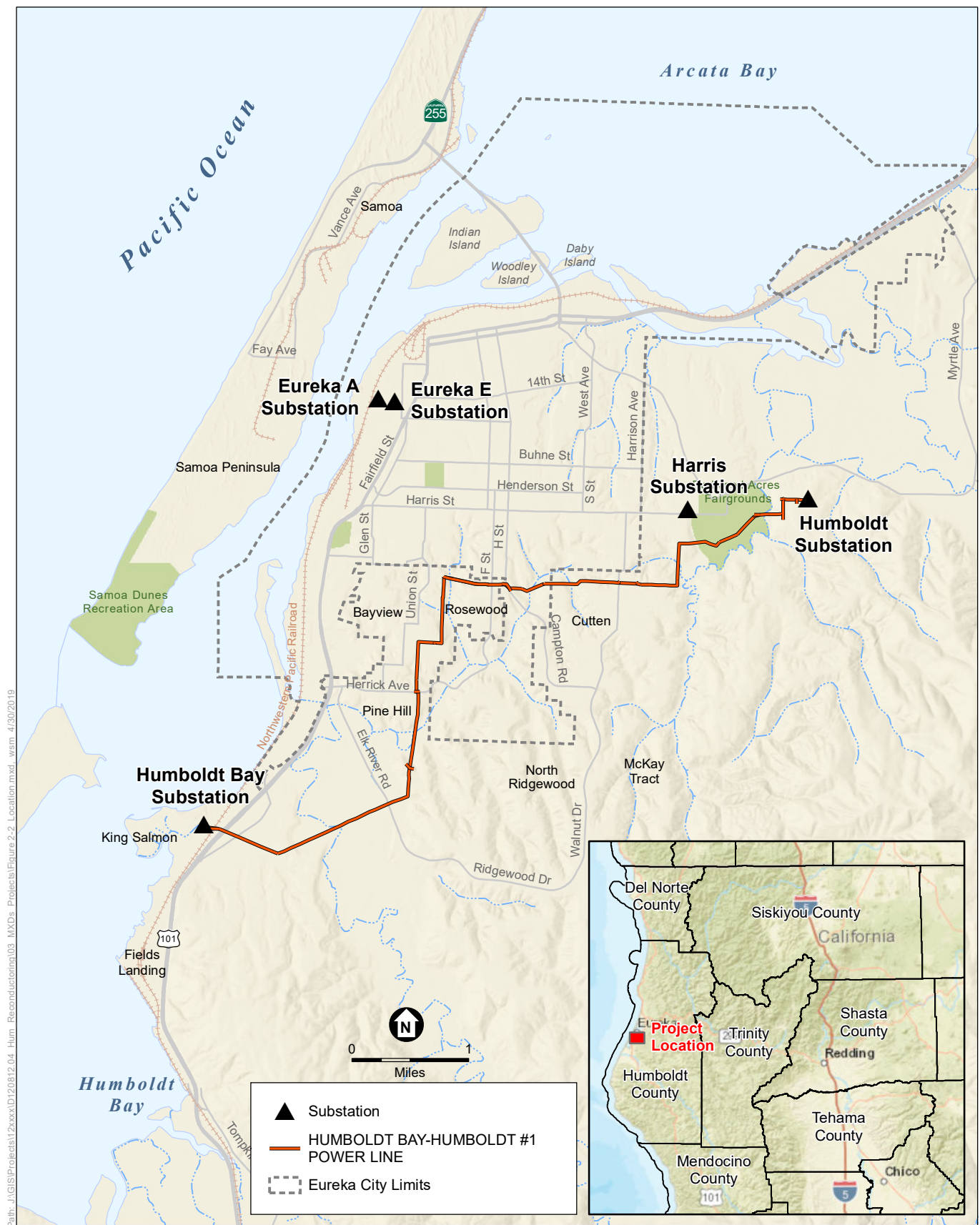
Sincerely,

A handwritten signature in black ink that reads "John E. Forsythe".

John Edward Forsythe, AICP
Project Manager
California Public Utilities Commission
300 Capital Mall, Suite 518
Sacramento, CA 95814

cc: Stephanie Green, CPUC Tribal Liaison

Attachments: Figure 1 – Project Location



SOURCE: PG&E

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 1
Project Location

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KLAMATH, CA 95548

Certified Mail Fee

\$3.50

Extra Services & Fees (check box, add fee as appropriate)

- | | |
|--|--------|
| <input type="checkbox"/> Return Receipt (hardcopy) | \$0.00 |
| <input type="checkbox"/> Return Receipt (electronic) | \$0.00 |
| <input type="checkbox"/> Certified Mail Restricted Delivery | \$0.00 |
| <input type="checkbox"/> Adult Signature Required | \$0.00 |
| <input type="checkbox"/> Adult Signature Restricted Delivery | \$0.00 |

Postage

\$0.55

Total Postage and Fees

\$6.85



05/03/2019

ROSE Clayburn, Yurok Tribe
PO Box 1027
KLAMATH, CA 95548

PS Form 3800, April 2015 PSN 7530-02-000-9047

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PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 2, 2019

Erika Cooper, Tribal Historic Preservation Officer
Bear River Band of Rohnerville Rancheria
266 Keisner Road
Loleta, CA 95551

Re: CPUC Review of Pacific Gas & Electric's Permit to Construct Application for the Humboldt Bay-Humboldt 60 kV Reconductoring Project

Dear Ms. Cooper:

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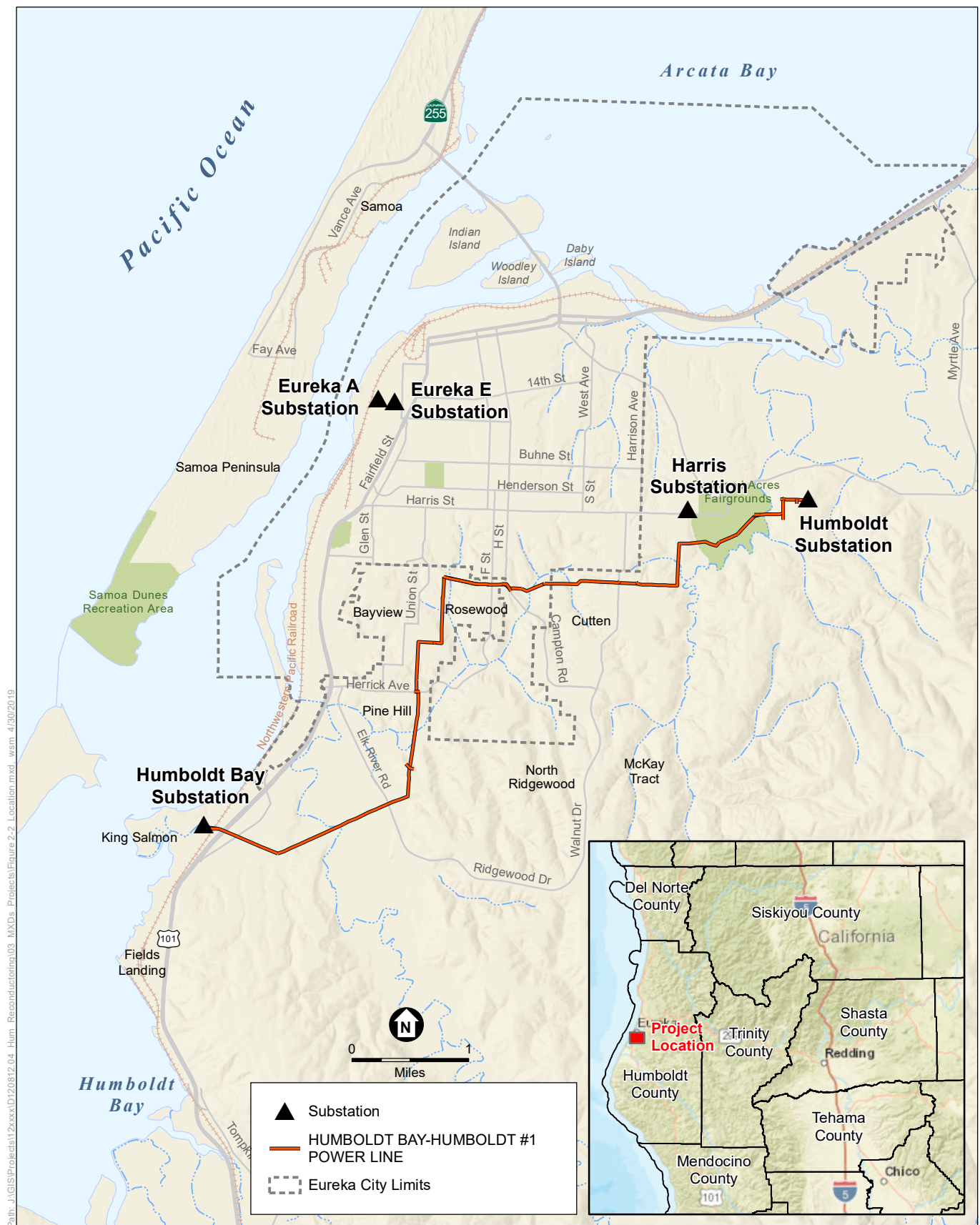
Sincerely,

A handwritten signature in black ink that reads "John E. Forsythe".

John Edward Forsythe, AICP
Project Manager
California Public Utilities Commission
300 Capital Mall, Suite 518
Sacramento, CA 95814

cc: Stephanie Green, CPUC Tribal Liaison

Attachments: Figure 1 – Project Location



SOURCE: PG&E

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 1
Project Location

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LOLETA, CA 95551 **OFFICIAL USE**

Certified Mail Fee	\$3.50
Extra Services & Fees (check box, add fee as appropriate)	
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage \$0.55

Total Postage and Fees \$6.85

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WY-3 2015
05/03/2015 PS

Sent to Erika Cooper, Bear River Band
Street and Apt. No., or P.O. Box No. 200 Keisler Road
City, State, ZIP+4® LOLETA, CA 95551

PS Form 3800, April 2015 PSN 7530-02-000-9047

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PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 2, 2019

Janet Eidsness, Tribal Historic Preservation Officer
Blue Lake Rancheria
P.O. Box 428
Blue Lake, CA 95525

Re: CPUC Review of Pacific Gas & Electric's Permit to Construct Application for the Humboldt Bay-Humboldt 60 kV Reconductoring Project

Dear Ms. Eidsness:

The State of California Public Utilities Commission (CPUC) is undertaking review of Pacific Gas & Electric's (PG&E['s]) Permit to Construct Application for the Humboldt Bay-Humboldt 60 kilovolt (kV) Reconductoring Project (Project), described below. PG&E filed a CPUC application (19-02-004), completed on April 18, 2019, seeking a permit to construct the Project. Consideration of the Project is subject to the California Environmental Quality Act (CEQA).

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PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3298



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Sincerely,

A handwritten signature in black ink that reads "John E. Forsythe".

John Edward Forsythe, AICP
Project Manager
California Public Utilities Commission
300 Capital Mall, Suite 518
Sacramento, CA 95814

cc: Stephanie Green, CPUC Tribal Liaison

Attachments: Figure 1 – Project Location



SOURCE: PG&E

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 1
Project Location

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<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage	\$0.55
Total Postage and Fees	\$6.85

0604
9



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Janet Eidsness, Blue Lake Ranch
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PO Box 428
City, State, ZIP+4®
Blue Lake, CA 95525

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PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE

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VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 2, 2019

Ted Hernandez, Chairperson
Wiyot Tribe
1000 Wiyot Drive
Loleta, CA 95551

Re: CPUC Review of Pacific Gas & Electric's Permit to Construct Application for the Humboldt Bay-Humboldt 60 kV Reconductoring Project

Honorable Chairperson Hernandez:

The State of California Public Utilities Commission (CPUC) is undertaking review of Pacific Gas & Electric's (PG&E['s]) Permit to Construct Application for the Humboldt Bay-Humboldt 60 kilovolt (kV) Reconductoring Project (Project), described below. PG&E filed a CPUC application (19-02-004), completed on April 18, 2019, seeking a permit to construct the Project. Consideration of the Project is subject to the California Environmental Quality Act (CEQA).

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Sincerely,

A handwritten signature in black ink that reads "John E. Forsythe".

John Edward Forsythe, AICP
Project Manager
California Public Utilities Commission
300 Capital Mall, Suite 518
Sacramento, CA 95814

cc: Stephanie Green, CPUC Tribal Liaison

Attachments: Figure 1 – Project Location



SOURCE: PG&E

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 1
Project Location

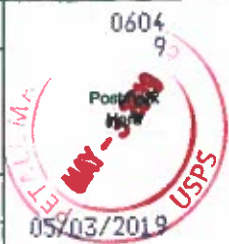
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<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage	\$0.55
Total Postage and Fees	\$6.85



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City, State, ZIP+4® LOLETA, CA 95551

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מחיר המעטפת נוסף
מחיר המעטפת נוסף
מחיר המעטפת נוסף

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 2, 2019

Ryan Jackson, Chairperson
Hoopa Valley Tribe
P.O. Box 1348
Hoopa, CA 95546

Re: CPUC Review of Pacific Gas & Electric's Permit to Construct Application for the Humboldt Bay-Humboldt 60 kV Reconductoring Project

Honorable Chairperson Jackson:

The State of California Public Utilities Commission (CPUC) is undertaking review of Pacific Gas & Electric's (PG&E['s]) Permit to Construct Application for the Humboldt Bay-Humboldt 60 kilovolt (kV) Reconductoring Project (Project), described below. PG&E filed a CPUC application (19-02-004), completed on April 18, 2019, seeking a permit to construct the Project. Consideration of the Project is subject to the California Environmental Quality Act (CEQA).

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PUBLIC UTILITIES COMMISSION

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SAN FRANCISCO, CA 94102-3298



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Sincerely,

A handwritten signature in black ink that reads "John E. Forsythe".

John Edward Forsythe, AICP
Project Manager
California Public Utilities Commission
300 Capital Mall, Suite 518
Sacramento, CA 95814

cc: Stephanie Green, CPUC Tribal Liaison

Attachments: Figure 1 – Project Location



SOURCE: PG&E

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 1
Project Location

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☐ Adult Signature Required \$0.00
☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.55
\$
Total Postage and Fees \$6.85
\$

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City, State, ZIP+4® Hoopa, CA 95546

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 2, 2019

Virgil Moorehead, Chairperson
Big Lagoon Rancheria
P.O. Box 3060
Trinidad, CA 95570

Re: CPUC Review of Pacific Gas & Electric's Permit to Construct Application for the Humboldt Bay-Humboldt 60 kV Reconductoring Project

Honorable Chairperson Moorehead:

The State of California Public Utilities Commission (CPUC) is undertaking review of Pacific Gas & Electric's (PG&E['s]) Permit to Construct Application for the Humboldt Bay-Humboldt 60 kilovolt (kV) Reconductoring Project (Project), described below. PG&E filed a CPUC application (19-02-004), completed on April 18, 2019, seeking a permit to construct the Project. Consideration of the Project is subject to the California Environmental Quality Act (CEQA).

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Sincerely,

A handwritten signature in black ink that reads "John E. Forsythe".

John Edward Forsythe, AICP
Project Manager
California Public Utilities Commission
300 Capital Mall, Suite 518
Sacramento, CA 95814

cc: Stephanie Green, CPUC Tribal Liaison

Attachments: Figure 1 – Project Location



SOURCE: PG&E

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 1
Project Location

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<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
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<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage	\$0.55
Total Postage and Fees	\$6.85

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Virgil Moore head, Big Lagoon Ranch
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PO Box 3010
City, State, ZIP+4®
Trinidad, CA 95570

PS Form 3800, April 2015 PSN 7530-02-000-9047

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PUBLIC UTILITIES COMMISSION

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SAN FRANCISCO, CA 94102-3298



VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 2, 2019

Thomas O'Rourke, Chairperson
Yurok Tribe
P.O. Box 1027
Klamath, CA 95548

Re: CPUC Review of Pacific Gas & Electric's Permit to Construct Application for the Humboldt Bay-Humboldt 60 kV Reconductoring Project

Honorable Chairperson O'Rourke:

The State of California Public Utilities Commission (CPUC) is undertaking review of Pacific Gas & Electric's (PG&E['s]) Permit to Construct Application for the Humboldt Bay-Humboldt 60 kilovolt (kV) Reconductoring Project (Project), described below. PG&E filed a CPUC application (19-02-004), completed on April 18, 2019, seeking a permit to construct the Project. Consideration of the Project is subject to the California Environmental Quality Act (CEQA).

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John Edward Forsythe, AICP
Project Manager
California Public Utilities Commission
300 Capital Mall, Suite 518
Sacramento, CA 95814

cc: Stephanie Green, CPUC Tribal Liaison

Attachments: Figure 1 – Project Location

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Postage \$0.55

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VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 2, 2019

Garth Sundberg, Chairperson
Cher-Ae Heights Indian Community of the Trinidad Rancheria
P.O. Box 630
Trinidad, CA 95570-0630

Re: CPUC Review of Pacific Gas & Electric's Permit to Construct Application for the Humboldt Bay-Humboldt 60 kV Reconductoring Project

Honorable Chairperson Sundberg:

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PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3298



The CPUC understands that other cultural resources can be found in the Project Area. A Native American tribe or individual may be the only source for the presence of traditional cultural places or sites. Therefore, we request any additional information that you may be willing to share related to any sacred or traditional cultural places, tribal cultural resources, or tribal landscapes near the Project Area shown on the accompanying map, or regarding any other environmental concerns. We request that you provide any comments or concerns in writing within 30 days of receiving this notice. We also invite your comments on the Project during the public comment period. Please note that existing State laws protect the confidentiality of sensitive cultural resources information, including that contained in tribal comment letters (California Public Resources Section 21082.3[c][1]).

If you have any comments or concerns regarding the Project, or would like to request any additional information, please contact the CPUC at the address below or via email to John Forsythe (john.forsythe@cpuc.ca.gov). You may also contact Stephanie Green, the CPUC Tribal Liaison. She is readily available to assist you with this or any other tribal matter. Ms. Green is copied here, will be included in all CPUC correspondence regarding tribal matters, and can be reached at 415-703-5245 and Stephanie.Green@cpuc.ca.gov.

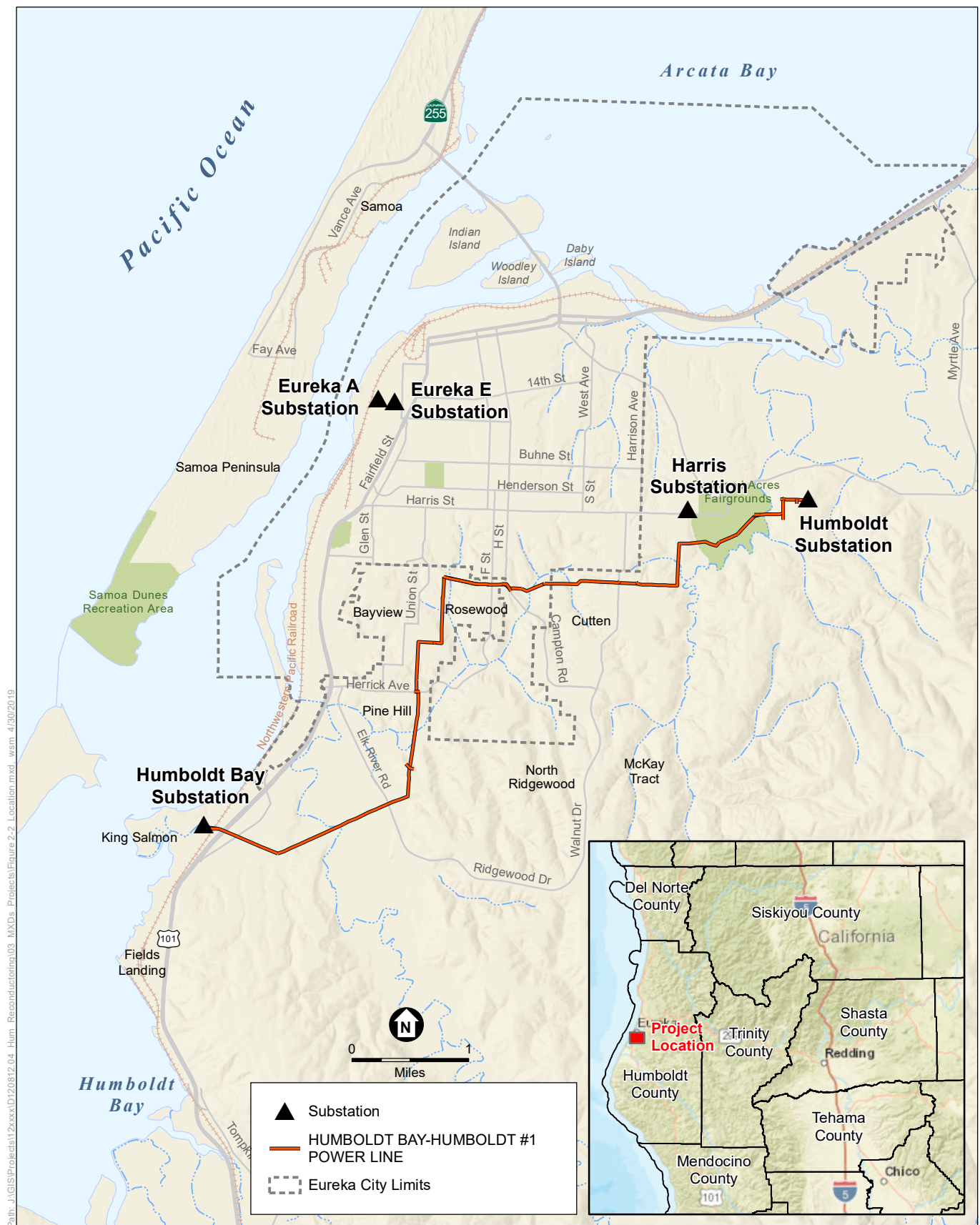
Sincerely,

A handwritten signature in black ink that reads "John E. Forsythe".

John Edward Forsythe, AICP
Project Manager
California Public Utilities Commission
300 Capital Mall, Suite 518
Sacramento, CA 95814

cc: Stephanie Green, CPUC Tribal Liaison

Attachments: Figure 1 – Project Location



SOURCE: PG&E

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 1
Project Location

7017 1070 0000 3939 1952

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505 VAN NESS AVENUE
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VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 2, 2019

Tom Torma, Tribal Historic Preservation Officer
Wiyot Tribe
1000 Wiyot Drive
Loleta, CA 95551

Re: CPUC Review of Pacific Gas & Electric's Permit to Construct Application for the Humboldt Bay-Humboldt 60 kV Reconductoring Project

Dear Mr. Torma:

The State of California Public Utilities Commission (CPUC) is undertaking review of Pacific Gas & Electric's (PG&E['s]) Permit to Construct Application for the Humboldt Bay-Humboldt 60 kilovolt (kV) Reconductoring Project (Project), described below. PG&E filed a CPUC application (19-02-004), completed on April 18, 2019, seeking a permit to construct the Project. Consideration of the Project is subject to the California Environmental Quality Act (CEQA).

The Project would maintain electric transmission system reliability in the City of Eureka and surrounding areas by replacing the conductor and poles on approximately 7.8 miles of the existing 8.4-mile Humboldt Bay-Humboldt #1 60 kV Power Line, a single-circuit power line between Humboldt Bay Substation, just south of Eureka, and Humboldt Substation, just east of Eureka. The Project would replace corroded conductors (reconductor) and supporting poles to reduce the frequency of outages and necessary maintenance and address an existing curtailment issue to reinforce the existing power line system. Along the beginning approximately 0.6 mile of the Project alignment, where the Humboldt Bay-Humboldt #1 60 kV Power Line is in proximity to the Humboldt Bay-Eureka 60 kV Power Line, PG&E would also reconductor that line segment and install the new wire onto shared transmission towers to reduce the number of structures in wetland areas while complying with required ground-to-conductor and conductor-to-conductor clearance requirements. No substation work is anticipated as part of the Project, except for some minor changes to the switches inside Humboldt Bay Substation and Humboldt Substation.

A Phase I cultural resources study has been prepared for the Project. The study included records searches of the California Historical Resources Information System, a Sacred Lands File search through the Native American Heritage Commission (NAHC), a pedestrian cultural resources survey of the entire Project Area, and outreach to Native American representatives. Several cultural resources (eight historic-era architectural resources and one historic-era archaeological resource) were identified in the Project Area from the records searches and pedestrian survey, and the SLF search indicated that "sites" are known to be located within the Project Area.

The NAHC has provided a list of tribal organizations that may have interest in the Project; this list included your Tribe. As a courtesy, the CPUC is providing Project information and notice that CPUC has initiated the environmental analysis and review required under CEQA for the Project. CPUC is sending this notice to inquire whether you have and would like to share information regarding cultural resources that could be impacted by the Project. Any information you provide regarding actual locations of cultural resources will be kept strictly confidential in accordance with federal and state regulations. Your assistance in identifying resources so they may be avoided and protected whenever feasible is greatly appreciated.

PUBLIC UTILITIES COMMISSION

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SAN FRANCISCO, CA 94102-3298



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If you have any comments or concerns regarding the Project, or would like to request any additional information, please contact the CPUC at the address below or via email to John Forsythe (john.forsythe@cpuc.ca.gov). You may also contact Stephanie Green, the CPUC Tribal Liaison. She is readily available to assist you with this or any other tribal matter. Ms. Green is copied here, will be included in all CPUC correspondence regarding tribal matters, and can be reached at 415-703-5245 and Stephanie.Green@cpuc.ca.gov.

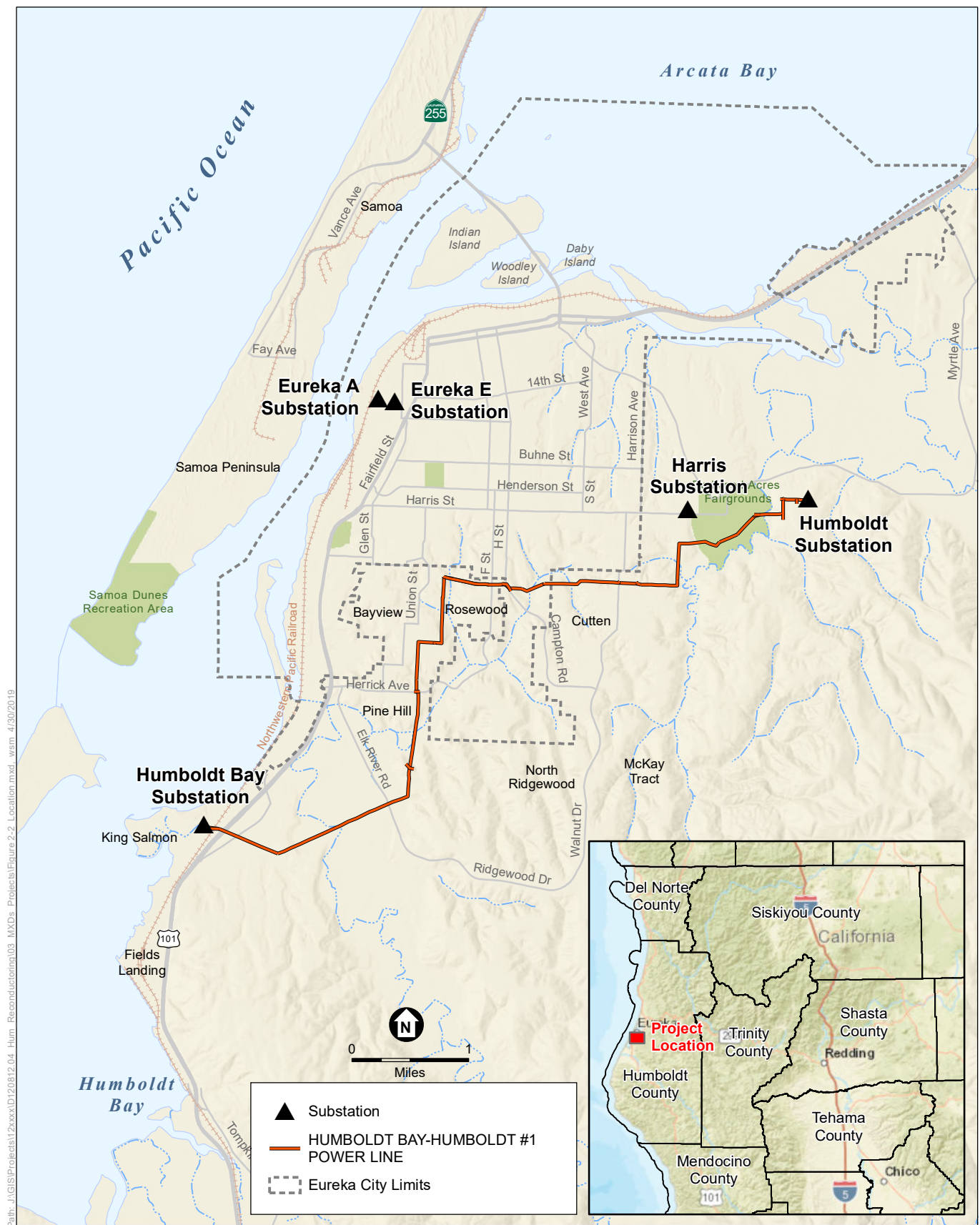
Sincerely,

A handwritten signature in black ink that reads "John E. Forsythe".

John Edward Forsythe, AICP
Project Manager
California Public Utilities Commission
300 Capital Mall, Suite 518
Sacramento, CA 95814

cc: Stephanie Green, CPUC Tribal Liaison

Attachments: Figure 1 – Project Location



SOURCE: PG&E

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 1
Project Location

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Sent To: Tom Toma, Wiyot Tribe

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PS Form 3800, April 2015 PSN 7530-02-000-9047

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VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 2, 2019

NAGPRA Coordinator
Yurok Tribe
P.O. Box 1027
Klamath, CA 95548

Re: CPUC Review of Pacific Gas & Electric's Permit to Construct Application for the Humboldt Bay-Humboldt 60 kV Reconductoring Project

Dear NAGPRA Coordinator:

The State of California Public Utilities Commission (CPUC) is undertaking review of Pacific Gas & Electric's (PG&E['s]) Permit to Construct Application for the Humboldt Bay-Humboldt 60 kilovolt (kV) Reconductoring Project (Project), described below. PG&E filed a CPUC application (19-02-004), completed on April 18, 2019, seeking a permit to construct the Project. Consideration of the Project is subject to the California Environmental Quality Act (CEQA).

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PUBLIC UTILITIES COMMISSION

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SAN FRANCISCO, CA 94102-3298



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If you have any comments or concerns regarding the Project, or would like to request any additional information, please contact the CPUC at the address below or via email to John Forsythe (john.forsythe@cpuc.ca.gov). You may also contact Stephanie Green, the CPUC Tribal Liaison. She is readily available to assist you with this or any other tribal matter. Ms. Green is copied here, will be included in all CPUC correspondence regarding tribal matters, and can be reached at 415-703-5245 and Stephanie.Green@cpuc.ca.gov.

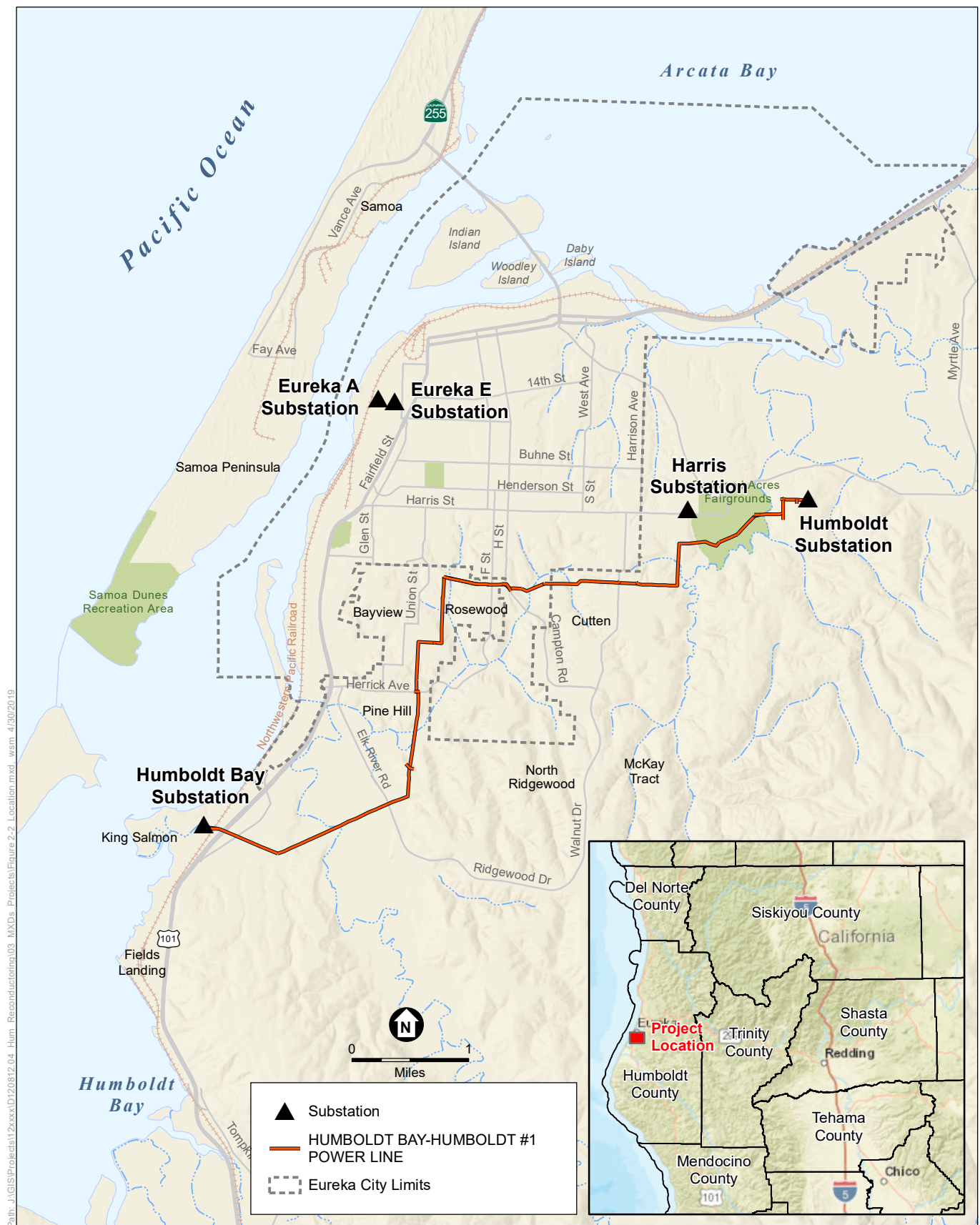
Sincerely,

A handwritten signature in black ink that reads "John E. Forsythe".

John Edward Forsythe, AICP
Project Manager
California Public Utilities Commission
300 Capital Mall, Suite 518
Sacramento, CA 95814

cc: Stephanie Green, CPUC Tribal Liaison

Attachments: Figure 1 – Project Location



SOURCE: PG&E

HUMBOLDT BAY – HUMBOLDT #1 60 KV RECONDUCTORING PROJECT

Figure 1
Project Location

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<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
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Sent to: Nigppa Coordinator, Yurok Tribe

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PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7017 1070 0000 3939 1938



Robin Hoffman

From: Cory Barringhaus
Sent: Monday, May 13, 2019 8:40 AM
To: Robin Hoffman
Subject: FW: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

Cory Barringhaus
ESA | Environmental Science Associates
Celebrating 50 Years of Work that Matters!
415.896.5900

From: Janet Eidsness <jpeidsness@yahoo.com>
Sent: Tuesday, May 7, 2019 10:38 AM
To: Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>; Sakowicz, Leslie <LSSH@pge.com>
Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>; Cory Barringhaus <CBarringhaus@esassoc.com>; Maier, Lonn <Lonn.Maier@cpuc.ca.gov>; Forsythe, John <John.Forsythe@cpuc.ca.gov>; Green, Stephanie <stephanie.green@cpuc.ca.gov>; Rice, Erin <E1RJ@pge.com>
Subject: Re: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

Leslie and all,

Thanks for your call this morning and the detailed summary of our coordination. I do recall this project and the final comment of no specific concerns. I would hope the project will be conditioned with an Inadvertent Archaeological Discovery Protocol to be shared with field personnel at tailgate briefings over course of construction. The Wiyot area THPOs (Bear River, Wiyot and Blue Lake) will need to be contacted immediately if Native American archaeological deposits or remains are found.

Thanks,

JANET P. EIDSSNESS, M.A. Tribal Historic Preservation Officer (THPO) for Blue Lake Rancheria HOME:
2488 Sonnenfelt Road, Bayside, CA 95524 (707) 825-0460 (VOICE), (530) 623-0663 (CELL)
jpeidsness@yahoo.com

On Tuesday, May 7, 2019, 9:59:24 AM PDT, Sakowicz, Leslie <LSSH@pge.com> wrote:

Greetings Janet:

Thanks for calling me back regarding this project. It seems our call has refreshed your memory pertaining this project and now you do remember coordinating about it. I am hoping that you will be willing to email be back confirming the validity of

the information provided below and thus also confirming the conclusion arrived at in 2017 that you do not have concerns with respect to the proposed project.

What follow is a summary of the Native American coordination conducted for this project to date. PG&E has coordinated with you, Ted and Erica since 2012. The following information is presented in the inventory and evaluation report produced for this project (note no prehistoric resources/resources that are Native American in origin were identified as part of this effort), but I understand you are not yet in receipt of a copy of that. The table below is taken from that report; please note that there is a typo in the table in terms of the closing year of our coordination (we talked in 2017 not 2014). In essence, initially Erica expressed some concerns about this project in 2012; however, I think the project was delayed and those concerns were not addressed at that time. When I took over the project in 2017 I completed a new NAHC sacred lands search and requested an updated contact list, and at that time commenced coordination with Erica, Ted and you (and others) regarding the project and the potential cultural site in the footprint. In tandem with Ted Hernandez an extended Phase I was completed at the "potential cultural site" and that site was found not to be cultural in origin. Over the course of the Native American coordination efforts I completed for the project, you generally deferred to Eric and Ted, and while they had some initial concerns about the project, once more information about the project was provided to Erica and Ted those concerns were assuaged.

We, like the CPUC, understand how it is important to coordinate or consult with Native Americans early and often and really tried to do so in the early phases of this project with the aim of addressing issues or concerns early in the process.

If new information has come to light or if you now do have concerns about the project I hope you will be willing to discuss those concerns with PG&E and CPUC who is the consulting lead agency under AB 52. See table below from the survey and evaluation report. Thanks.

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
Bear River Band of Rohnerville Rancheria 27 Bear River Drive Loleta, California 95551 Contact: Len Bowman, Jr., Chairperson	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 6/19/12: Spoke with Mr. Bowman's assistant and she indicated that Ms. Collins' response was representative of the tribe.	No further action required.
Bear River Band of Rohnerville Rancheria 27 Bear River Drive Loleta, California 95551 Contact: Erika Collins, THPO	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 5/29/12: Ms. Collins responded via letter – they would like to have a site walk- they have knowledge of resources within the area. 12/07/2017-12/14/2014: Ms. Erika Collins was contacted by phone and email several times regarding this project and AS-1. Erika Cooper (formerly named Erika Collins) is the THPO for the Bear River Band of the Rohnerville Rancheria and she represents the Tribe. Ms. Cooper asserted after receiving updated mapping and such that "...while there are a few resources nearby, it doesn't like anything	No further action required. (see more information below).

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
	is close enough to be of great concern. So, in short I do not have any further concerns about the project, either the overall project area or 'AS-1'." [1]	
Bear River Band of Rohnerville Rancheria 27 Bear River Drive Loleta, California 95551 Contact: Edwin Smith, Environmental Coordinator/Cultural	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 6/19/12: Left voicemail.	No further reaction required.
Blue Lake Rancheria P.O. Box 428 Blue Lake, California 95525 Contact: <i>Claudia Brundin, Chairperson</i>	5/16/12: Letter sent via U.S. Mail. 6/4/12: Spoke with her executive assistant and she referred me to Janet Eidsness. Spoke with Ms. Eidsness and she was going to check her office and get back to me 6/4/12: Ms. Eidsness responded via email to Steven Treffers that there are no known Wiyot sites in the project area; however, it does cross areas that are sensitive (slough margins, etc.) 12/07/2017-12/14/2014: Ms. Eidsness was contacted several times over the phone and via email. Ultimately, she deferred to Ms. Cooper and to Mr. Hernandez, both of which ultimately expressed that after reviewing the project they did not have any concerns.	No further reaction required.
Blue Lake Rancheria P.O. Box 645 Blue Lake, California 95525 Contact: Diane Holliday	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 6/19/12: Left voicemail.	No further action required.
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551 Contact: Ted Hernandez, Chairperson	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left message with secretary 6/18/12: Left voicemail. 12/07/2017-12/14/2017: Mr. Hernandez was contacted by phone and email several times regarding the project as well as regarding XPI testing to occur in the recorded location of the purported archaeological site. A tribal representative of the Wiyot was present during testing at the alleged, and after the completing of testing and a review of the project as a whole, Mr. Hernandez asserted that the Tribe did not have any concerns regarding the project.	No further action required.
Wiyot Tribe	5/16/12: Letter sent via U.S. Mail.	No further action required.

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
1000 Wiyot Drive Loleta, California 95551 Contact: Andrea Davis, Environmental Coordinator	6/4/12: No longer works there- see below	
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551 Contact: Helene Rouvier, Tribal Historic Preservation Officer	5/16/12: Letter sent via U.S. Mail. 6/4/12: No longer works there-see below	No further action required.
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551 Contact: Brian Mead, Administrator	6/4/12: Letter sent via Internet 6/19/12: Letter was transferred to Monique (the new cultural person) and she is going to look for the letter and get back to us. 6/19/12: Spoke with Monique and she is sending us a letter.	No further action required.
Round Valley Indian Tribes of the Round Valley Reservation, James Russ, President; 77826 Covelo Road, Covelo, CA 95428; tribalcouncil@rvit.org ; and D. Hutt at dhutt@council.rvit.org	Emailed project information on 01/16/2018; Emailed project information on 01/30/2018	No response received to date.
Yurok Tribe of the Yurok Reservation, Thomas O'Rourke. Chairperson, PO Box 1027 Yurok, Klamath. CA 95548, torourke@yuroktribe.nsn.us ; (707) 482-1350; (707) 482-1377	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Yurok Tribe of the Yurok Reservation, Robert McConnell. THPO, HC 67 P.O. Box 196. Highway 9, Hoopa, CA 95546, rmcconnell@yuroktribe.nsn.us , (707) 498-2536, (530) 625-4130 x1626	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Yurok Tribe of the Yurok Reservation; NAGPRA Coordinator; P.O. Box 1027, Yurok, Klamath CA 95548; (707) 482-1350 (707)954-5355, (707) 482-1377	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Cher-Ae Heights Indian Community of the Trinidad Rancheria, Garth Sundberg Sr. Chairperson, P.O. Box 630, Trinidad, CA 95570-06; gsundberg@TrinidadRancheria.com ; (707) 677-0211	Letter mailed 01/18/2018; On 01/30/2018, PG&E CRS spoke with THPO, Rachel Sunberg, she stated that the project location was outside of her tribal sphere of concern.	No further action required.
Tsunawaw Council, Paul Ammon, Chairperson; P.O. Box 373;Salver, CA 95563;530-629-4758	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Big Lagoon Rancheria; Virgil Moorehead, Chairperson; P.O. Box 3060, Trinidad, CA 95570; vmorehead@earthlink.net ; (707) 826-2079	Emailed project information on 01/16/2018 Left message regarding project on 01/30/2018	No response received to date.
Hoopa Valley Tribe; Ryan P. Jackson, Chairperson; P.O. Box 1348, Hoopa, CA 95546; (530) 625-4211	Letter mailed 01/18/2018; On 01/30/2018, PG&E CRS spoke with THPO, Keduescha Lara-Colegrove, she asked for project information to be emailed to her at	No response received to date.

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
	hvtthpo@gmail.com , and it was emailed to her on 01/30/2018	
Karuk Tribe; Russell Atteberry, Chairperson; P.O.Box1016; Happy Camp, CA 96039; (530) 493-1600	Letter mailed 01/18/2018; On 01/30/2018, PG&E CRS spoke with Dr. Alex Watts-Tobin, the Karuk Tribe's THPO and lead archaeologist and he asked for the project information to be emailed to him at atobin@karuk.us , and it was emailed to him on 01/30/2017	No response received to date.

Leslie Smirnoff Sakowicz, MA, RPA

Senior Cultural Resources Specialist

Environmental Management - Power Generation

Pacific Gas & Electric Company

Mobile: 925-708-5051

Office: 916-923-7094

2730 Gateway Oaks Drive, Suite 220

Sacramento, CA 95833

From: Cimino, Stephanie

Sent: Monday, May 6, 2019 4:17 PM

To: Forsythe, John <John.Forsythe@cpuc.ca.gov>; Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>; Green, Stephanie <stephanie.green@cpuc.ca.gov>; Sakowicz, Leslie <LSSH@pge.com>

Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>; Cory Barringhaus <CBarringhaus@esassoc.com>; Maier, Lonn <Lonn.Maier@cpuc.ca.gov>

Subject: RE: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

Good afternoon!

Thank you for including me on this message. I am copying Leslie Sakowicz who is the PG&E Cultural Resource Specialist assigned to this project. I believe PG&E has coordinated with Blue Lake, Bear River and the Wiyot on this project at some point in the past, but I will defer to Leslie regarding details.

Thank you!

Stephanie

Stephanie Cimino

925-785-6731/s2cm@pge.com

From: Forsythe, John <John.Forsythe@cpuc.ca.gov>

Sent: Monday, May 06, 2019 4:08 PM

To: Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>; Green, Stephanie <stephanie.green@cpuc.ca.gov>; Cimino, Stephanie <S2CM@pge.com>

Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>; Cory Barringhaus <CBarringhaus@esassoc.com>; Maier, Lonn <Lonn.Maier@cpuc.ca.gov>

Subject: RE: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

*******CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.*******

Hello Janet:

Thank you for your note. The CPUC is just beginning its review process for this project, but we will ensure coordination with you going forward. A consultant (ESA) is conducting the CEQA review on our behalf so we'll make sure that their cultural resources person contacts you soon to provide the requested information. PG&E and their consultant may also want to coordinate with you and as the applicant they would have done any initial review of the alignment.

We look forward to a productive working relationship with Blue Lake; if you have any other questions don't hesitate to contact me.

Thank you,

John

John Edward Forsythe, AICP

Senior Environmental Planner

Public Utilities Regulatory Analyst IV

California Public Utilities Commission

Energy Division

Infrastructure Permitting and CEQA Section

300 Capital Mall, Suite 518

Sacramento, CA 95814

916.327.6782 (desk)

916.217.5073 (cell)

email: john.forsythe@cpuc.ca.gov

website: www.cpuc.ca.gov

From: Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>

Sent: Monday, May 6, 2019 3:45 PM

To: Green, Stephanie <stephanie.green@cpuc.ca.gov>; Forsythe, John <John.Forsythe@cpuc.ca.gov>; Cimino, Stephanie <S2CM@pge.com>

Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>

Subject: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

Dear Stephanie and John and all:

I received John's letter dated 5/2/19 describing the subject project review by the CPUC and subject to CEQA. The project runs through the back (interior) side of Eureka from Myrtle town area to King Salmon area.

This is first I've heard about this project. What tribes were contacted during the Phase 1 cultural resources study? Our standard protocol in the Wiyot ancestral area, among Blue Lake, Bear River and Wiyot Tribes and their THPOs, is for the THPOs to be contacted BEFORE fieldwork so we can offer information and guidance to obtain reliable results. By this email, I request a copy of the Phase 1 survey report.

There is insufficient detail on the project map to locate other known or sensitive areas. Let me see the survey report and I'll have more comments.

Regards,

Janet P. Eidsness, THPO Blue Lake Rancheria

P.O. Box 428 (428 Chartin Road), Blue Lake, CA 95525

Office (707) 668-5101 ext. 1037

jeidsness@bluelakerancheria-nsn.gov

cell (530) 623-0663 jpeidsness@yahoo.com

Jacob Pounds, Assistant THPO

jpounds@bluelakerancheria-nsn.gov

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[1] AS-1 is the location of a purported archaeological site in the PAL. This site was subject to archaeological testing. That testing is documented in the Browning 2018 report and was determine not to be cultural in nature.

Robin Hoffman

From: Robin Hoffman
Sent: Monday, May 13, 2019 4:25 PM
To: JEidsness@bluelakerancheria-nsn.gov
Cc: Cory Barringhaus; erikacooper@brb-nsn.gov; ted@wiyot.us; John.Forsythe@cpuc.ca.gov
Subject: RE: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

Janet,

Hi there, I am the cultural resources task lead for ESA for the Humboldt Bay-Humboldt 60kV Reconductoring Project. As John Forsythe mentioned in the email chain below, ESA is conducting the CEQA review of the project on behalf of the CPUC. The email chain below also shows recent correspondence between you, CPUC, and PG&E regarding the project. I wanted to follow up and make sure that you do not have any concerns regarding the project at this time, and also to let you know that ESA and the CPUC will keep you apprised of updates throughout the CEQA process. Please let me know if you have any concerns, and feel free to contact me or John Forsythe if you have any questions regarding the project. Thanks,

Robin Hoffman, MA, RPA
Senior Archaeologist

ESA | Environmental Science Associates
707.796.7006 direct

From: Janet Eidsness <jpeidsness@yahoo.com>
Sent: Tuesday, May 7, 2019 10:38 AM
To: Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>; Sakowicz, Leslie <LSSH@pge.com>
Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>; Cory Barringhaus <CBarringhaus@esassoc.com>; Maier, Lonn <Lonn.Maier@cpuc.ca.gov>; Forsythe, John <John.Forsythe@cpuc.ca.gov>; Green, Stephanie <stephanie.green@cpuc.ca.gov>; Rice, Erin <E1RJ@pge.com>
Subject: Re: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

Leslie and all,

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Thanks,

JANET P. EIDSSNESS, M.A. Tribal Historic Preservation Officer (THPO) for Blue Lake Rancheria HOME:
2488 Sonnenfelt Road, Bayside, CA 95524 (707) 825-0460 (VOICE), (530) 623-0663 (CELL)
jpeidsness@yahoo.com

On Tuesday, May 7, 2019, 9:59:24 AM PDT, Sakowicz, Leslie <LSSH@pge.com> wrote:

Greetings Janet:

Thanks for calling me back regarding this project. It seems our call has refreshed your memory pertaining this project and now you do remember coordinating about it. I am hoping that you will be willing to email be back confirming the validity of the information provided below and thus also confirming the conclusion arrived at in 2017 that you do not have concerns with respect to the proposed project.

What follow is a summary of the Native American coordination conducted for this project to date. PG&E has coordinated with you, Ted and Erica since 2012. The following information is presented in the inventory and evaluation report produced for this project (note no prehistoric resources/resources that are Native American in origin were identified as part of this effort), but I understand you are not yet in receipt of a copy of that. The table below is taken from that report; please note that there is a typo in the table in terms of the closing year of our coordination (we talked in 2017 not 2014). In essence, initially Erica expressed some concerns about this project in 2012; however, I think the project was delayed and those concerns were not addressed at that time. When I took over the project in 2017 I completed a new NAHC sacred lands search and requested an updated contact list, and at that time commenced coordination with Erica, Ted and you (and others) regarding the project and the potential cultural site in the footprint. In tandem with Ted Hernandez an extended Phase I was completed at the "potential cultural site" and that site was found not to be cultural in origin. Over the course of the Native American coordination efforts I completed for the project, you generally deferred to Eric and Ted, and while they had some initial concerns about the project, once more information about the project was provided to Erica and Ted those concerns were assuaged.

We, like the CPUC, understand how it is important to coordinate or consult with Native Americans early and often and really tried to do so in the early phases of this project with the aim of addressing issues or concerns early in the process.

If new information has come to light or if you now do have concerns about the project I hope you will be willing to discuss those concerns with PG&E and CPUC who is the consulting lead agency under AB 52. See table below from the survey and evaluation report. Thanks.

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
Bear River Band of Rohnerville Rancheria 27 Bear River Drive Loleta, California 95551 Contact: Len Bowman, Jr., Chairperson	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 6/19/12: Spoke with Mr. Bowman's assistant and she indicated that Ms. Collins' response was representative of the tribe.	No further action required.
Bear River Band of Rohnerville Rancheria 27 Bear River Drive Loleta, California 95551	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 5/29/12: Ms. Collins responded via letter – they would like to have a site walk- they have knowledge of resources within the area.	No further action required. (see more information below).

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
<p>Contact: Erika Collins, THPO</p>	<p>12/07/2017-12/14/2014: Ms. Erika Collins was contacted by phone and email several times regarding this project and AS-1. Erika Cooper (formerly named Erika Collins) is the THPO for the Bear River Band of the Rohnerville Rancheria and she represents the Tribe. Ms. Cooper asserted after receiving updated mapping and such that "...while there are a few resources nearby, it doesn't like anything is close enough to be of great concern. So, in short I do not have any further concerns about the project, either the overall project area or 'AS-1'." [1]</p>	
<p>Bear River Band of Rohnerville Rancheria</p> <p>27 Bear River Drive</p> <p>Loleta, California 95551</p> <p>Contact: Edwin Smith, Environmental Coordinator/Cultural</p>	<p>5/16/12: Letter sent via U.S. Mail.</p> <p>6/4/12: Left voice message</p> <p>6/19/12: Left voicemail.</p>	<p>No further reaction required.</p>
<p>Blue Lake Rancheria</p> <p>P.O. Box 428</p> <p>Blue Lake, California 95525</p> <p>Contact: <i>Claudia Brundin, Chairperson</i></p>	<p>5/16/12: Letter sent via U.S. Mail.</p> <p>6/4/12: Spoke with her executive assistant and she referred me to Janet Eidsness. Spoke with Ms. Eidsness and she was going to check her office and get back to me</p> <p>6/4/12: Ms. Eidsness responded via email to Steven Treffers that there are no known Wiyot sites in the project area; however, it does cross areas that are sensitive (slough margins, etc.)</p> <p>12/07/2017-12/14/2014: Ms. Eidsness was contacted several times over the phone and via email. Ultimately, she deferred to Ms. Cooper and to Mr. Hernandez, both of which ultimately expressed that after reviewing the project they did not have any concerns.</p>	<p>No further reaction required.</p>
<p>Blue Lake Rancheria</p> <p>P.O. Box 645</p> <p>Blue Lake, California 95525</p> <p>Contact: Diane Holliday</p>	<p>5/16/12: Letter sent via U.S. Mail.</p> <p>6/4/12: Left voice message</p> <p>6/19/12: Left voicemail.</p>	<p>No further action required.</p>
<p>Wiyot Tribe</p> <p>1000 Wiyot Drive</p> <p>Loleta, California 95551</p>	<p>5/16/12: Letter sent via U.S. Mail.</p> <p>6/4/12: Left message with secretary</p> <p>6/18/12: Left voicemail.</p> <p>12/07/2017-12/14/2017: Mr. Hernandez was contacted by phone and email several times</p>	<p>No further action required.</p>

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
Contact: Ted Hernandez, Chairperson	regarding the project as well as regarding XPI testing to occur in the recorded location of the purported archaeological site. A tribal representative of the Wiyot was present during testing at the alleged, and after the completing of testing and a review of the project as a whole, Mr. Hernandez asserted that the Tribe did not have any concerns regarding the project.	
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551 Contact: Andrea Davis, Environmental Coordinator	5/16/12: Letter sent via U.S. Mail. 6/4/12: No longer works there- see below	No further action required.
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551 Contact: Helene Rouvier, Tribal Historic Preservation Officer	5/16/12: Letter sent via U.S. Mail. 6/4/12: No longer works there-see below	No further action required.
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551 Contact: Brian Mead, Administrator	6/4/12: Letter sent via Internet 6/19/12: Letter was transferred to Monique (the new cultural person) and she is going to look for the letter and get back to us. 6/19/12: Spoke with Monique and she is sending us a letter.	No further action required.
Round Valley Indian Tribes of the Round Valley Reservation, James Russ, President; 77826 Covelo Road, Covelo, CA 95428; tribalcouncil@rvit.org ; and D. Hutt at dhutt@council.rvit.org	Emailed project information on 01/16/2018; Emailed project information on 01/30/2018	No response received to date.
Yurok Tribe of the Yurok Reservation, Thomas O'Rourke. Chairperson, PO Box 1027 Yurok, Klamath. CA 95548, torouroke@yuroktribe.nsn.us ; (707) 482-1350; (707) 482-1377	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Yurok Tribe of the Yurok Reservation, Robert McConnell. THPO, HC 67 P.O. Box 196. Highway 9, Hoopa, CA 95546, rmcconnell@yuroktribe.nsn.us , (707) 498-2536, (530) 625-4130 x1626	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Yurok Tribe of the Yurok Reservation; NAGPRA Coordinator; P.O. Box 1027, Yurok, Klamath CA 95548; (707) 482-1350 (707)954-5355, (707) 482-1377	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Cher-Ae Heights Indian Community of the Trinidad Rancheria, Garth Sundberg Sr. Chairperson, P.O. Box 630, Trinidad, CA 95570-06; gsundberg@TrinidadRancheria.com ; (707) 677-0211	Letter mailed 01/18/2018; On 01/30/2018, PG&E CRS spoke with THPO, Rachel Sunberg, she stated that the project location was outside of her tribal sphere of concern.	No further action required.
Tsunawaw Council, Paul Ammon, Chairperson; P.O. Box 373;Salver, CA 95563;530-629-4758	Emailed project information on 01/16/2018;	No response received to date.

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
	Left message regarding project on 01/30/2018	
Big Lagoon Rancheria; Virgil Moorehead, Chairperson; P.O. Box 3060, Trinidad , CA 95570; vmorehead@earthlink.net ; (707) 826-2079	Emailed project information on 01/16/2018 Left message regarding project on 01/30/2018	No response received to date.
Hoop Valley Tribe; Ryan P. Jackson, Chairperson; P.O. Box 1348, Hoopa, CA 95546; (530) 625-4211	Letter mailed 01/18/2018; On 01/30/2018, PG&E CRS spoke with THPO, Keduescha Lara-Colegrove, she asked for project information to be emailed to her at hvthpo@gmail.com , and it was emailed to her on 01/30/2018	No response received to date.
Karuk Tribe; Russell Atteberry, Chairperson; P.O.Box1016; Happy Camp, CA 96039; (530) 493-1600	Letter mailed 01/18/2018; On 01/30/2018, PG&E CRS spoke with Dr. Alex Watts-Tobin, the Karuk Tribe's THPO and lead archaeologist and he asked for the project information to be emailed to him at atobin@karuk.us , and it was emailed to him on 01/30/2017	No response received to date.

Leslie Smirnoff Sakowicz, MA, RPA

Senior Cultural Resources Specialist

Environmental Management - Power Generation

Pacific Gas & Electric Company

Mobile: 925-708-5051

Office: 916-923-7094

2730 Gateway Oaks Drive, Suite 220

Sacramento, CA 95833

From: Cimino, Stephanie

Sent: Monday, May 6, 2019 4:17 PM

To: Forsythe, John <John.Forsythe@cpuc.ca.gov>; Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>; Green, Stephanie <stephanie.green@cpuc.ca.gov>; Sakowicz, Leslie <LSSH@pge.com>

Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>; Cory Barringhaus <CBarringhaus@esassoc.com>; Maier, Lonn <Lonn.Maier@cpuc.ca.gov>

Subject: RE: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

Good afternoon!

Thank you for including me on this message. I am copying Leslie Sakowicz who is the PG&E Cultural Resource Specialist assigned to this project. I believe PG&E has coordinated with Blue Lake, Bear River and the Wiyot on this project at some point in the past, but I will defer to Leslie regarding details.

Thank you!

Stephanie

Stephanie Cimino

925-785-6731/s2cm@pge.com

From: Forsythe, John <John.Forsythe@cpuc.ca.gov>

Sent: Monday, May 06, 2019 4:08 PM

To: Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>; Green, Stephanie <stephanie.green@cpuc.ca.gov>; Cimino, Stephanie <S2CM@pge.com>

Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>; Cory Barringhaus <CBarringhaus@esassoc.com>; Maier, Lonn <Lonn.Maier@cpuc.ca.gov>

Subject: RE: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

*******CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.*******

Hello Janet:

Thank you for your note. The CPUC is just beginning its review process for this project, but we will ensure coordination with you going forward. A consultant (ESA) is conducting the CEQA review on our behalf so we'll make sure that their cultural resources person contacts you soon to provide the requested information. PG&E and their consultant may also want to coordinate with you and as the applicant they would have done any initial review of the alignment.

We look forward to a productive working relationship with Blue Lake; if you have any other questions don't hesitate to contact me.

Thank you,

John

John Edward Forsythe, AICP

Senior Environmental Planner

Public Utilities Regulatory Analyst IV

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300 Capital Mall, Suite 518

Sacramento, CA 95814

916.327.6782 (desk)

916.217.5073 (cell)

email: john.forsythe@cpuc.ca.gov

website: www.cpuc.ca.gov

From: Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>
Sent: Monday, May 6, 2019 3:45 PM
To: Green, Stephanie <stephanie.green@cpuc.ca.gov>; Forsythe, John <John.Forsythe@cpuc.ca.gov>; Cimino, Stephanie <S2CM@pge.com>
Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>
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This is first I've heard about this project. What tribes were contacted during the Phase 1 cultural resources study? Our standard protocol in the Wiyot ancestral area, among Blue Lake, Bear River and Wiyot Tribes and their THPOs, is for the THPOs to be contacted BEFORE fieldwork so we can offer information and guidance to obtain reliable results. By this email, I request a copy of the Phase 1 survey report.

There is insufficient detail on the project map to locate other known or sensitive areas. Let me see the survey report and I'll have more comments.

Regards,

Janet P. Eidsness, THPO Blue Lake Rancheria

P.O. Box 428 (428 Chartin Road), Blue Lake, CA 95525

Office (707) 668-5101 ext. 1037

jeidsness@bluelakerancheria-nsn.gov

cell (530) 623-0663 jpeidsness@yahoo.com

Jacob Pounds, Assistant THPO

jpounds@bluelakerancheria-nsn.gov

Office (707) 668-5101 ext. 1038

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Robin Hoffman

From: Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>
Sent: Tuesday, May 14, 2019 12:09 PM
To: Robin Hoffman
Cc: Cory Barringhaus; erikacooper@brb-nsn.gov; ted@wiyot.us; John.Forsythe@cpuc.ca.gov
Subject: RE: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

I have no concerns at this time. Thanks for your reaching out. Jacob Pounds will be standing in for me while out of country for a month starting May 20.

Janet P. Eidsness, THPO Blue Lake Rancheria
P.O. Box 428 (428 Chartin Road), Blue Lake, CA 95525
Office (707) 668-5101 ext. 1037
jeidsness@bluelakerancheria-nsn.gov
cell (530) 623-0663 jpeidsness@yahoo.com

Jacob Pounds, Assistant THPO
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Cc: Cory Barringhaus; erikacooper@brb-nsn.gov; ted@wiyot.us; John.Forsythe@cpuc.ca.gov
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Senior Archaeologist

ESA | Environmental Science Associates

707.796.7006 direct

From: Janet Eidsness <jpeidsness@yahoo.com>

Sent: Tuesday, May 7, 2019 10:38 AM

To: Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>; Sakowicz, Leslie <LSSH@pge.com>

Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>; Cory Barringhaus <CBarringhaus@esassoc.com>; Maier, Lonn <Lonn.Maier@cpuc.ca.gov>; Forsythe, John <John.Forsythe@cpuc.ca.gov>; Green, Stephanie <stephanie.green@cpuc.ca.gov>; Rice, Erin <E1RJ@pge.com>

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JANET P. EIDSSNESS, M.A. Tribal Historic Preservation Officer (THPO) for Blue Lake Rancheria HOME:
2488 Sonnenfelt Road, Bayside, CA 95524 (707) 825-0460 (VOICE), (530) 623-0663 (CELL)
jpeidsness@yahoo.com

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NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
Bear River Band of Rohnerville Rancheria 27 Bear River Drive Loleta, California 95551 Contact: Len Bowman, Jr., Chairperson	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 6/19/12: Spoke with Mr. Bowman's assistant and she indicated that Ms. Collins' response was representative of the tribe.	No further action required.
Bear River Band of Rohnerville Rancheria 27 Bear River Drive Loleta, California 95551 Contact: Erika Collins, THPO	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 5/29/12: Ms. Collins responded via letter – they would like to have a site walk- they have knowledge of resources within the area. 12/07/2017-12/14/2014: Ms. Erika Collins was contacted by phone and email several times regarding this project and AS-1. Erika Cooper (formerly named Erika Collins) is the THPO for the Bear River Band of the Rohnerville Rancheria and she represents the Tribe. Ms. Cooper asserted after receiving updated mapping and such that "...while there are a few resources nearby, it doesn't like anything is close enough to be of great concern. So, in short I do not have any further concerns about the project, either the overall project area or 'AS-1'." [1]	No further action required. (see more information below).
Bear River Band of Rohnerville Rancheria 27 Bear River Drive Loleta, California 95551 Contact: Edwin Smith, Environmental Coordinator/Cultural	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 6/19/12: Left voicemail.	No further reaction required.

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
Blue Lake Rancheria P.O. Box 428 Blue Lake, California 95525 Contact: <i>Claudia Brundin, Chairperson</i>	5/16/12: Letter sent via U.S. Mail. 6/4/12: Spoke with her executive assistant and she referred me to Janet Eidsness. Spoke with Ms. Eidsness and she was going to check her office and get back to me 6/4/12: Ms. Eidsness responded via email to Steven Treffers that there are no known Wiyot sites in the project area; however, it does cross areas that are sensitive (slough margins, etc.) 12/07/2017-12/14/2014: Ms. Eidsness was contacted several times over the phone and via email. Ultimately, she deferred to Ms. Cooper and to Mr. Hernandez, both of which ultimately expressed that after reviewing the project they did not have any concerns.	No further reaction required.
Blue Lake Rancheria P.O. Box 645 Blue Lake, California 95525 Contact: Diane Holliday	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 6/19/12: Left voicemail.	No further action required.
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551 Contact: Ted Hernandez, Chairperson	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left message with secretary 6/18/12: Left voicemail. 12/07/2017-12/14/2017: Mr. Hernandez was contacted by phone and email several times regarding the project as well as regarding XPI testing to occur in the recorded location of the purported archaeological site. A tribal representative of the Wiyot was present during testing at the alleged, and after the completing of testing and a review of the project as a whole, Mr. Hernandez asserted that the Tribe did not have any concerns regarding the project.	No further action required.
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551 Contact: Andrea Davis, Environmental Coordinator	5/16/12: Letter sent via U.S. Mail. 6/4/12: No longer works there- see below	No further action required.
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551	5/16/12: Letter sent via U.S. Mail. 6/4/12: No longer works there-see below	No further action required.

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
Contact: Helene Rouvier, Tribal Historic Preservation Officer		
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551 Contact: Brian Mead, Administrator	6/4/12: Letter sent via Internet 6/19/12: Letter was transferred to Monique (the new cultural person) and she is going to look for the letter and get back to us. 6/19/12: Spoke with Monique and she is sending us a letter.	No further action required.
Round Valley Indian Tribes of the Round Valley Reservation, James Russ, President; 77826 Covelo Road, Covelo, CA 95428; tribalcouncil@rvit.org ; and D. Hutt at dhutt@council.rvit.org	Emailed project information on 01/16/2018; Emailed project information on 01/30/2018	No response received to date.
Yurok Tribe of the Yurok Reservation, Thomas O'Rourke, Chairperson, PO Box 1027 Yurok, Klamath, CA 95548, torouroke@yuroktribe.nsn.us ; (707) 482-1350; (707) 482-1377	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Yurok Tribe of the Yurok Reservation, Robert McConnell, THPO, HC 67 P.O. Box 196, Highway 9, Hoopa, CA 95546, rmccconnell@yuroktribe.nsn.us , (707) 498-2536, (530) 625-4130 x1626	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Yurok Tribe of the Yurok Reservation; NAGPRA Coordinator; P.O. Box 1027, Yurok, Klamath CA 95548; (707) 482-1350 (707)954-5355, (707) 482-1377	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Cher-Ae Heights Indian Community of the Trinidad Rancheria, Garth Sundberg Sr. Chairperson, P.O. Box 630, Trinidad, CA 95570-06; gsundberg@TrinidadRancheria.com ; (707) 677-0211	Letter mailed 01/18/2018; On 01/30/2018, PG&E CRS spoke with THPO, Rachel Sunberg, she stated that the project location was outside of her tribal sphere of concern.	No further action required.
Tsunawwe Council, Paul Ammon, Chairperson; P.O. Box 373; Salver, CA 95563; 530-629-4758	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Big Lagoon Rancheria; Virgil Moorehead, Chairperson; P.O. Box 3060, Trinidad, CA 95570; vmoorehead@earthlink.net ; (707) 826-2079	Emailed project information on 01/16/2018 Left message regarding project on 01/30/2018	No response received to date.
Hoopa Valley Tribe; Ryan P. Jackson, Chairperson; P.O. Box 1348, Hoopa, CA 95546; (530) 625-4211	Letter mailed 01/18/2018; On 01/30/2018, PG&E CRS spoke with THPO, Keduescha Lara-Colegrove, she asked for project information to be emailed to her at hvthpo@gmail.com , and it was emailed to her on 01/30/2018	No response received to date.
Karuk Tribe; Russell Atteberry, Chairperson; P.O.Box1016; Happy Camp, CA 96039; (530) 493-1600	Letter mailed 01/18/2018; On 01/30/2018, PG&E CRS spoke with Dr. Alex Watts-Tobin, the Karuk Tribe's THPO and lead archaeologist and he asked for the project information to be emailed to him at atobin@karuk.us , and it was emailed to him on 01/30/2017	No response received to date.

Leslie Smirnoff Sakowicz, MA, RPA

Senior Cultural Resources Specialist

Environmental Management - Power Generation

Pacific Gas & Electric Company

Mobile: 925-708-5051

Office: 916-923-7094

2730 Gateway Oaks Drive, Suite 220

Sacramento, CA 95833

From: Cimino, Stephanie

Sent: Monday, May 6, 2019 4:17 PM

To: Forsythe, John <John.Forsythe@cpuc.ca.gov>; Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>; Green, Stephanie <stephanie.green@cpuc.ca.gov>; Sakowicz, Leslie <LSSH@pge.com>

Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>; Cory Barringhaus <CBarringhaus@esassoc.com>; Maier, Lonn <Lonn.Maier@cpuc.ca.gov>

Subject: RE: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

Good afternoon!

Thank you for including me on this message. I am copying Leslie Sakowicz who is the PG&E Cultural Resource Specialist assigned to this project. I believe PG&E has coordinated with Blue Lake, Bear River and the Wiyot on this project at some point in the past, but I will defer to Leslie regarding details.

Thank you!

Stephanie

Stephanie Cimino

925-785-6731/s2cm@pge.com

From: Forsythe, John <John.Forsythe@cpuc.ca.gov>
Sent: Monday, May 06, 2019 4:08 PM
To: Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>; Green, Stephanie <stephanie.green@cpuc.ca.gov>; Cimino, Stephanie <S2CM@pge.com>
Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>; Cory Barringhaus <CBarringhaus@esassoc.com>; Maier, Lonn <Lonn.Maier@cpuc.ca.gov>
Subject: RE: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

*******CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.*******

Hello Janet:

Thank you for your note. The CPUC is just beginning its review process for this project, but we will ensure coordination with you going forward. A consultant (ESA) is conducting the CEQA review on our behalf so we'll make sure that their cultural resources person contacts you soon to provide the requested information. PG&E and their consultant may also want to coordinate with you and as the applicant they would have done any initial review of the alignment.

We look forward to a productive working relationship with Blue Lake; if you have any other questions don't hesitate to contact me.

Thank you,

John

John Edward Forsythe, AICP

Senior Environmental Planner

Public Utilities Regulatory Analyst IV

California Public Utilities Commission

Energy Division

Infrastructure Permitting and CEQA Section

300 Capital Mall, Suite 518

Sacramento, CA 95814

916.327.6782 (desk)

916.217.5073 (cell)

email: john.forsythe@cpuc.ca.gov

website: www.cpuc.ca.gov

From: Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>

Sent: Monday, May 6, 2019 3:45 PM

To: Green, Stephanie <stephanie.green@cpuc.ca.gov>; Forsythe, John <John.Forsythe@cpuc.ca.gov>; Cimino, Stephanie <S2CM@pge.com>

Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>

Subject: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

Dear Stephanie and John and all:

I received John's letter dated 5/2/19 describing the subject project review by the CPUC and subject to CEQA. The project runs through the back (interior) side of Eureka from Myrtle town area to King Salmon area.

This is first I've heard about this project. What tribes were contacted during the Phase 1 cultural resources study? Our standard protocol in the Wiyot ancestral area, among Blue Lake, Bear River and Wiyot Tribes and their THPOs, is for the THPOs to be contacted BEFORE fieldwork so we can offer information and guidance to obtain reliable results. By this email, I request a copy of the Phase 1 survey report.

There is insufficient detail on the project map to locate other known or sensitive areas. Let me see the survey report and I'll have more comments.

Regards,

Janet P. Eidsness, THPO Blue Lake Rancheria

P.O. Box 428 (428 Chartin Road), Blue Lake, CA 95525

Office (707) 668-5101 ext. 1037

jeidsness@bluelakerancheria-nsn.gov

cell (530) 623-0663 jpeidsness@yahoo.com

Jacob Pounds, Assistant THPO

jpounds@bluelakerancheria-nsn.gov

Office (707) 668-5101 ext. 1038

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[1] AS-1 is the location of a purported archaeological site in the PAL. This site was subject to archaeological testing. That testing is documented in the Browning 2018 report and was determine not to be cultural in nature.

Robin Hoffman

From: Erika Cooper <erikacooper@brb-nsn.gov>
Sent: Wednesday, May 15, 2019 3:06 PM
To: Janet Eidsness
Cc: Robin Hoffman; Cory Barringhaus; ted@wiyot.us; John.Forsythe@cpuc.ca.gov
Subject: Re: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

Categories: CC'd

No additional concerns from Bear River either, I believe all concerns were addressed in the communications between 2012-2017.

Erika Cooper, M.A.
Tribal Historic Preservation Officer
Bear River Band of the Rohnerville Rancheria
266 Keisner Road
Loleta, CA 95551
707-733-1900 x233 Office
707-502-5233 Cell
707-733-1727 Fax
erikacooper@brb-nsn.gov

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On Tue, May 14, 2019 at 12:08 PM Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov> wrote:

I have no concerns at this time. Thanks for your reaching out. Jacob Pounds will be standing in for me while out of country for a month starting May 20.

Janet P. Eidsness, THPO Blue Lake Rancheria

P.O. Box 428 (428 Chartin Road), Blue Lake, CA 95525

Office (707) 668-5101 ext. 1037

jeidsness@bluelakerancheria-nsn.gov

cell (530) 623-0663 jpeidsness@yahoo.com

Jacob Pounds, Assistant THPO

jpounds@bluelakerancheria-nsn.gov

Office (707) 668-5101 ext. 1038

CONFIDENTIALITY NOTICE: This e-mail and attachment(s), if any, is for the sole use of the intended recipient(s) and may contain confidential business information protected by the trade secret privilege, the Electronic Communications Privacy Act (ECPA), and/or other legal bases as may apply. If you are not an intended recipient, please take notice that disclosure of the information contained herein is inadvertent, expressly lacks the consent of the sender, and your receipt of this e-mail does not constitute a waiver of any applicable privilege(s). In this event, please notify the sender immediately, do not disseminate any of the information contained herein to any third party, and cause all electronic and/or paper copies of this e-mail to be promptly destroyed. Thank you.

From: Robin Hoffman [mailto:RHoffman@esassoc.com]

Sent: Monday, May 13, 2019 4:25 PM

To: Janet Eidsness

Cc: Cory Barringhaus; erikacooper@brb-nsn.gov; ted@wiyot.us; John.Forsythe@cpuc.ca.gov

Subject: RE: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

Janet,

Hi there, I am the cultural resources task lead for ESA for the Humboldt Bay-Humboldt 60kV Reconductoring Project. As John Forsythe mentioned in the email chain below, ESA is conducting the CEQA review of the project on behalf of the CPUC. The email chain below also shows recent correspondence between you, CPUC, and PG&E regarding the project. I wanted to follow up and make sure that you do not have any concerns regarding the project at this time, and also to let you know that ESA and the CPUC will keep you apprised of updates throughout the CEQA process. Please let me know if you have any concerns, and feel free to contact me or John Forsythe if you have any questions regarding the project.

Thanks,

Robin Hoffman, MA, RPA

Senior Archaeologist

707.796.7006 direct

From: Janet Eidsness <jpeidsness@yahoo.com>
Sent: Tuesday, May 7, 2019 10:38 AM
To: Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>; Sakowicz, Leslie <LSSH@pge.com>
Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>; Cory Barringhaus <CBarringhaus@esassoc.com>; Maier, Lonn <Lonn.Maier@cpuc.ca.gov>; Forsythe, John <John.Forsythe@cpuc.ca.gov>; Green, Stephanie <stephanie.green@cpuc.ca.gov>; Rice, Erin <E1RJ@pge.com>
Subject: Re: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

Leslie and all,

Thanks for your call this morning and the detailed summary of our coordination. I do recall this project and the final comment of no specific concerns. I would hope the project will be conditioned with an Inadvertent Archaeological Discovery Protocol to be shared with field personnel at tailgate briefings over course of construction. The Wiyot area THPOs (Bear River, Wiyot and Blue Lake) will need to be contacted immediately if Native American archaeological deposits or remains are found.

Thanks,

JANET P. EIDSSNESS, M.A. Tribal Historic Preservation Officer (THPO) for Blue Lake Rancheria HOME:
2488 Sonnenfelt Road, Bayside, CA 95524 (707) 825-0460 (VOICE), (530) 623-0663 (CELL)
jpeidsness@yahoo.com

On Tuesday, May 7, 2019, 9:59:24 AM PDT, Sakowicz, Leslie <LSSH@pge.com> wrote:

Greetings Janet:

Thanks for calling me back regarding this project. It seems our call has refreshed your memory pertaining this project and now you do remember coordinating about it. I am hoping that you will be willing to email be back confirming the validity of the information provided below and thus also confirming the conclusion arrived at in 2017 that you do not have concerns with respect to the proposed project.

What follow is a summary of the Native American coordination conducted for this project to date. PG&E has coordinated with you, Ted and Erica since 2012. The following information is presented in the inventory and evaluation report produced for this project (note no prehistoric resources/resources that are Native American in origin were identified as part of this effort), but I understand you are not yet in receipt of a copy of that. The table below is taken from that report; please note that there is a typo in the table in terms of the closing year of our coordination (we talked in 2017 not 2014). In essence, initially Erica expressed some concerns about this project in 2012; however, I think the project was delayed and those concerns were not addressed at that time. When I took over the project in 2017 I completed a new NAHC sacred lands search and requested an updated contact list, and at that time commenced coordination with Erica, Ted and you (and others) regarding the project and the potential cultural site in the footprint. In tandem with Ted Hernandez an extended Phase I was completed at the "potential cultural site" and that site was found not to be cultural in origin. Over the course of the Native American coordination efforts I completed for the project, you generally deferred to Eric and Ted, and while they had some initial concerns about the project, once more information about the project was provided to Erica and Ted those concerns were assuaged.

We, like the CPUC, understand how it is important to coordinate or consult with Native Americans early and often and really tried to do so in the early phases of this project with the aim of addressing issues or concerns early in the process.

If new information has come to light or if you now do have concerns about the project I hope you will be willing to discuss those concerns with PG&E and CPUC who is the consulting lead agency under AB 52. See table below from the survey and evaluation report. Thanks.

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
Bear River Band of Rohnerville Rancheria 27 Bear River Drive Loleta, California 95551 Contact: Len Bowman, Jr., Chairperson	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 6/19/12: Spoke with Mr. Bowman's assistant and she indicated that Ms. Collins' response was representative of the tribe.	No further action required.
Bear River Band of Rohnerville Rancheria 27 Bear River Drive Loleta, California 95551 Contact: Erika Collins, THPO	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 5/29/12: Ms. Collins responded via letter – they would like to have a site walk- they have knowledge of resources within the area. 12/07/2017-12/14/2014: Ms. Erika Collins was contacted by phone and email several times regarding this project and AS-1. Erika Cooper (formerly named Erika Collins) is the THPO for the Bear River Band of the Rohnerville Rancheria and she represents the Tribe. Ms. Cooper asserted after receiving updated	No further action required. (see more information below).

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
	mapping and such that "...while there are a few resources nearby, it doesn't like anything is close enough to be of great concern. So, in short I do not have any further concerns about the project, either the overall project area or 'AS-1'." [1]	
Bear River Band of Rohnerville Rancheria 27 Bear River Drive Loleta, California 95551 Contact: Edwin Smith, Environmental Coordinator/Cultural	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 6/19/12: Left voicemail.	No further reaction required.
Blue Lake Rancheria P.O. Box 428 Blue Lake, California 95525 Contact: <i>Claudia Brundin, Chairperson</i>	5/16/12: Letter sent via U.S. Mail. 6/4/12: Spoke with her executive assistant and she referred me to Janet Eidsness. Spoke with Ms. Eidsness and she was going to check her office and get back to me 6/4/12: Ms. Eidsness responded via email to Steven Treffers that there are no known Wiyot sites in the project area; however, it does cross areas that are sensitive (slough margins, etc.) 12/07/2017-12/14/2014: Ms. Eidsness was contacted several times over the phone and via email. Ultimately, she deferred to Ms. Cooper and to Mr. Hernandez, both of which ultimately expressed that after reviewing the project they did not have any concerns.	No further reaction required.
Blue Lake Rancheria P.O. Box 645 Blue Lake, California 95525 Contact: Diane Holliday	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 6/19/12: Left voicemail.	No further action required.
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551 Contact: Ted Hernandez, Chairperson	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left message with secretary 6/18/12: Left voicemail. 12/07/2017-12/14/2017: Mr. Hernandez was contacted by phone and email several times regarding the project as well as regarding XPI testing to occur in the recorded location of the purported archaeological site. A tribal representative of the Wiyot was present during testing at the alleged, and after the completing of testing and a review of the project as a whole, Mr. Hernandez asserted that the Tribe	No further action required.

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
	did not have any concerns regarding the project.	
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551 Contact: Andrea Davis, Environmental Coordinator	5/16/12: Letter sent via U.S. Mail. 6/4/12: No longer works there- see below	No further action required.
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551 Contact: Helene Rouvier, Tribal Historic Preservation Officer	5/16/12: Letter sent via U.S. Mail. 6/4/12: No longer works there-see below	No further action required.
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551 Contact: Brian Mead, Administrator	6/4/12: Letter sent via Internet 6/19/12: Letter was transferred to Monique (the new cultural person) and she is going to look for the letter and get back to us. 6/19/12: Spoke with Monique and she is sending us a letter.	No further action required.
Round Valley Indian Tribes of the Round Valley Reservation, James Russ, President; 77826 Covelo Road, Covelo, CA 95428; tribalcouncil@rvit.org ; and D. Hutt at dhutt@council.rvit.org	Emailed project information on 01/16/2018; Emailed project information on 01/30/2018	No response received to date.
Yurok Tribe of the Yurok Reservation, Thomas O'Rourke. Chairperson, PO Box 1027 Yurok, Klamath. CA 95548, torouroke@yuroktribe.nsn.us ; (707) 482-1350; (707) 482-1377	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Yurok Tribe of the Yurok Reservation, Robert McConnell. THPO, HC 67 P.O. Box 196. Highway 9 , Hoopa, CA 95546, rmcconnell@yuroktribe.nsn.us , (707) 498-2536, (530) 625-4130 x1626	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Yurok Tribe of the Yurok Reservation; NAGPRA Coordinator; P.O. Box 1027, Yurok, Klamath CA 95548; (707) 482-1350 (707)954-5355, (707) 482-1377	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Cher-Ae Heights Indian Community of the Trinidad Rancheria, Garth Sundberg Sr. Chairperson, P.O. Box 630, Trinidad, CA 95570-06; gsundberg@TrinidadRancheria.com ; (707) 677-0211	Letter mailed 01/18/2018; On 01/30/2018, PG&E CRS spoke with THPO, Rachel Sunberg, she stated that the project location was outside of her tribal sphere of concern.	No further action required.
Tsunawaw Council, Paul Ammon, Chairperson; P.O. Box 373;Salver, CA 95563;530-629-4758	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Big Lagoon Rancheria; Virgil Moorehead, Chairperson; P.O. Box 3060, Trinidad , CA 95570; vmorehead@earthlink.net ; (707) 826-2079	Emailed project information on 01/16/2018 Left message regarding project on 01/30/2018	No response received to date.

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
Hoopa Valley Tribe; Ryan P. Jackson, Chairperson; P.O. Box 1348, Hoopa, CA 95546; (530) 625-4211	Letter mailed 01/18/2018; On 01/30/2018, PG&E CRS spoke with THPO, Keduescha Lara-Colegrove, she asked for project information to be emailed to her at hvthpo@gmail.com , and it was emailed to her on 01/30/2018	No response received to date.
Karuk Tribe; Russell Atteberry, Chairperson; P.O.Box1016; Happy Camp, CA 96039; (530) 493-1600	Letter mailed 01/18/2018; On 01/30/2018, PG&E CRS spoke with Dr. Alex Watts-Tobin, the Karuk Tribe's THPO and lead archaeologist and he asked for the project information to be emailed to him at atobin@karuk.us , and it was emailed to him on 01/30/2017	No response received to date.

Leslie Smirnoff Sakowicz, MA, RPA

Senior Cultural Resources Specialist

Environmental Management - Power Generation

Pacific Gas & Electric Company

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Office: 916-923-7094

2730 Gateway Oaks Drive, Suite 220

Sacramento, CA 95833

From: Cimino, Stephanie

Sent: Monday, May 6, 2019 4:17 PM

To: Forsythe, John <John.Forsythe@cpuc.ca.gov>; Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>; Green, Stephanie <stephanie.green@cpuc.ca.gov>; Sakowicz, Leslie <LSSH@pge.com>

Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>; Cory Barringhaus <CBarringhaus@esassoc.com>; Maier, Lonn <Lonn.Maier@cpuc.ca.gov>

Subject: RE: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

Good afternoon!

Thank you for including me on this message. I am copying Leslie Sakowicz who is the PG&E Cultural Resource Specialist assigned to this project. I believe PG&E has coordinated with Blue Lake, Bear River and the Wiyot on this project at some point in the past, but I will defer to Leslie regarding details.

Thank you!

Stephanie

Stephanie Cimino

925-785-6731/s2cm@pge.com

From: Forsythe, John <John.Forsythe@cpuc.ca.gov>
Sent: Monday, May 06, 2019 4:08 PM
To: Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>; Green, Stephanie <stephanie.green@cpuc.ca.gov>; Cimino, Stephanie <S2CM@pge.com>
Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>; Cory Barringhaus <CBarringhaus@esassoc.com>; Maier, Lonn <Lonn.Maier@cpuc.ca.gov>
Subject: RE: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

*******CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.*******

Hello Janet:

Thank you for your note. The CPUC is just beginning its review process for this project, but we will ensure coordination with you going forward. A consultant (ESA) is conducting the CEQA review on our behalf so we'll make sure that their cultural resources person contacts you soon to provide the requested information. PG&E and their consultant may also want to coordinate with you and as the applicant they would have done any initial review of the alignment.

We look forward to a productive working relationship with Blue Lake; if you have any other questions don't hesitate to contact me.

Thank you,

John

John Edward Forsythe, AICP

Senior Environmental Planner

Public Utilities Regulatory Analyst IV

California Public Utilities Commission

Energy Division

Infrastructure Permitting and CEQA Section

300 Capital Mall, Suite 518

Sacramento, CA 95814

916.327.6782 (desk)

916.217.5073 (cell)

email: john.forsythe@cpuc.ca.gov

website: www.cpuc.ca.gov

From: Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>

Sent: Monday, May 6, 2019 3:45 PM

To: Green, Stephanie <stephanie.green@cpuc.ca.gov>; Forsythe, John <John.Forsythe@cpuc.ca.gov>; Cimino, Stephanie <S2CM@pge.com>

Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>

Subject: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

Dear Stephanie and John and all:

I received John's letter dated 5/2/19 describing the subject project review by the CPUC and subject to CEQA. The project runs through the back (interior) side of Eureka from Myrtletown area to King Salmon area.

This is first I've heard about this project. What tribes were contacted during the Phase 1 cultural resources study? Our standard protocol in the Wiyot ancestral area, among Blue Lake, Bear River and Wiyot Tribes and their THPOs, is for the THPOs to be contacted BEFORE fieldwork so we can offer information and guidance to obtain reliable results. By this email, I request a copy of the Phase 1 survey report.

There is insufficient detail on the project map to locate other known or sensitive areas. Let me see the survey report and I'll have more comments.

Regards,

Janet P. Eidsness, THPO Blue Lake Rancheria

P.O. Box 428 (428 Chartin Road), Blue Lake, CA 95525

Office (707) 668-5101 ext. 1037

jeidsness@bluelakerancheria-nsn.gov

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Jacob Pounds, Assistant THPO

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[\[1\]](#) AS-1 is the location of a purported archaeological site in the PAL. This site was subject to archaeological testing. That testing is documented in the Browning 2018 report and was determine not to be cultural in nature.

Robin Hoffman

From: Ted Hernandez <ted@wiyot.us>
Sent: Wednesday, May 15, 2019 8:42 PM
To: Robin Hoffman
Cc: JEidsness@bluelakerancheria-nsn.gov; Cory Barringhaus; erikacooper@brb-nsn.gov; John.Forsythe@cpuc.ca.gov; Hazel James
Subject: Re: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

Follow Up Flag: FollowUp
Flag Status: Flagged

The Wiyot Tribe has no concerns as well for this project.

Juwaksib
Ted Hernandez
Cultural Director
Wiyot Tribe
1000 Wiyot Dr
Loleta, Ca 95551
(707)733-5055
ted@wiyot.us
Web: www.wiyot.us
Lbatsik Houmoulu'l



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On Mon, May 13, 2019 at 4:24 PM Robin Hoffman <RHoffman@esassoc.com> wrote:

Janet,

Hi there, I am the cultural resources task lead for ESA for the Humboldt Bay-Humboldt 60kV Reconductoring Project. As John Forsythe mentioned in the email chain below, ESA is conducting the CEQA review of the project on behalf of the CPUC. The email chain below also shows recent correspondence between you, CPUC, and PG&E regarding the project. I wanted to follow up and make sure that you do not have any concerns regarding the project at this time, and also to let you know that ESA and the CPUC will keep you apprised of updates throughout the CEQA process. Please let me know if you have any concerns, and feel free to contact me or John Forsythe if you have any questions regarding the project.

Thanks,

Robin Hoffman, MA, RPA

Senior Archaeologist

ESA | Environmental Science Associates

707.796.7006 direct

From: Janet Eidsness <jpeidsness@yahoo.com>

Sent: Tuesday, May 7, 2019 10:38 AM

To: Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>; Sakowicz, Leslie <LSSH@pge.com>

Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>; Cory Barringhaus <CBarringhaus@esassoc.com>; Maier, Lonn <Lonn.Maier@cpuc.ca.gov>; Forsythe, John <John.Forsythe@cpuc.ca.gov>; Green, Stephanie <stephanie.green@cpuc.ca.gov>; Rice, Erin <E1RJ@pge.com>

Subject: Re: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

Leslie and all,

Thanks for your call this morning and the detailed summary of our coordination. I do recall this project and the final comment of no specific concerns. I would hope the project will be conditioned with an Inadvertent Archaeological Discovery Protocol to be shared with field personnel at tailgate briefings over course of construction. The Wiyot area THPOs (Bear River, Wiyot and Blue Lake) will need to be contacted immediately if Native American archaeological deposits or remains are found.

Thanks,

JANET P. EIDSNESS, M.A. Tribal Historic Preservation Officer (THPO) for Blue Lake Rancheria HOME:
2488 Sonnenfelt Road, Bayside, CA 95524 (707) 825-0460 (VOICE), (530) 623-0663 (CELL)
jpeidsness@yahoo.com

On Tuesday, May 7, 2019, 9:59:24 AM PDT, Sakowicz, Leslie <LSSH@pge.com> wrote:

Greetings Janet:

Thanks for calling me back regarding this project. It seems our call has refreshed your memory pertaining this project and now you do remember coordinating about it. I am hoping that you will be willing to email be back confirming the validity of the information provided below and thus also confirming the conclusion arrived at in 2017 that you do not have concerns with respect to the proposed project.

What follow is a summary of the Native American coordination conducted for this project to date. PG&E has coordinated with you, Ted and Erica since 2012. The following information is presented in the inventory and evaluation report produced for this project (note no prehistoric resources/resources that are Native American in origin were identified as part of this effort), but I understand you are not yet in receipt of a copy of that. The table below is taken from that report; please note that there is a typo in the table in terms of the closing year of our coordination (we talked in 2017 not 2014). In essence, initially Erica expressed some concerns about this project in 2012; however, I think the project was delayed and those concerns were not addressed at that time. When I took over the project in 2017 I completed a new NAHC sacred lands search and requested an updated contact list, and at that time commenced coordination with Erica, Ted and you (and others) regarding the project and the potential cultural site in the footprint. In tandem with Ted Hernandez an extended Phase I was completed at the "potential cultural site" and that site was found not to be cultural in origin. Over the course of the Native American coordination efforts I completed for the project, you generally deferred to Eric and Ted, and while they had some initial concerns about the project, once more information about the project was provided to Erica and Ted those concerns were assuaged.

We, like the CPUC, understand how it is important to coordinate or consult with Native Americans early and often and really tried to do so in the early phases of this project with the aim of addressing issues or concerns early in the process.

If new information has come to light or if you now do have concerns about the project I hope you will be willing to discuss those concerns with PG&E and CPUC who is the consulting lead agency under AB 52. See table below from the survey and evaluation report. Thanks.

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
Bear River Band of Rohnerville Rancheria 27 Bear River Drive Loleta, California 95551 Contact: Len Bowman, Jr., Chairperson	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 6/19/12: Spoke with Mr. Bowman's assistant and she indicated that Ms. Collins' response was representative of the tribe.	No further action required.
Bear River Band of Rohnerville Rancheria 27 Bear River Drive Loleta, California 95551	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 5/29/12: Ms. Collins responded via letter – they would like to have a site walk- they have knowledge of resources within the area.	No further action required. (see more information below).

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
Contact: Erika Collins, THPO	12/07/2017-12/14/2014: Ms. Erika Collins was contacted by phone and email several times regarding this project and AS-1. Erika Cooper (formerly named Erika Collins) is the THPO for the Bear River Band of the Rohnerville Rancheria and she represents the Tribe. Ms. Cooper asserted after receiving updated mapping and such that "...while there are a few resources nearby, it doesn't like anything is close enough to be of great concern. So, in short I do not have any further concerns about the project, either the overall project area or 'AS-1'." [1]	
Bear River Band of Rohnerville Rancheria 27 Bear River Drive Loleta, California 95551 Contact: Edwin Smith, Environmental Coordinator/Cultural	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 6/19/12: Left voicemail.	No further reaction required.
Blue Lake Rancheria P.O. Box 428 Blue Lake, California 95525 Contact: <i>Claudia Brundin, Chairperson</i>	5/16/12: Letter sent via U.S. Mail. 6/4/12: Spoke with her executive assistant and she referred me to Janet Eidsness. Spoke with Ms. Eidsness and she was going to check her office and get back to me 6/4/12: Ms. Eidsness responded via email to Steven Treffers that there are no known Wiyot sites in the project area; however, it does cross areas that are sensitive (slough margins, etc.) 12/07/2017-12/14/2014: Ms. Eidsness was contacted several times over the phone and via email. Ultimately, she deferred to Ms. Cooper and to Mr. Hernandez, both of which ultimately expressed that after reviewing the project they did not have any concerns.	No further reaction required.
Blue Lake Rancheria P.O. Box 645 Blue Lake, California 95525 Contact: Diane Holliday	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left voice message 6/19/12: Left voicemail.	No further action required.
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551	5/16/12: Letter sent via U.S. Mail. 6/4/12: Left message with secretary 6/18/12: Left voicemail. 12/07/2017-12/14/2017: Mr. Hernandez was contacted by phone and email several times	No further action required.

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
Contact: Ted Hernandez, Chairperson	regarding the project as well as regarding XPI testing to occur in the recorded location of the purported archaeological site. A tribal representative of the Wiyot was present during testing at the alleged, and after the completing of testing and a review of the project as a whole, Mr. Hernandez asserted that the Tribe did not have any concerns regarding the project.	
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551 Contact: Andrea Davis, Environmental Coordinator	5/16/12: Letter sent via U.S. Mail. 6/4/12: No longer works there- see below	No further action required.
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551 Contact: Helene Rouvier, Tribal Historic Preservation Officer	5/16/12: Letter sent via U.S. Mail. 6/4/12: No longer works there-see below	No further action required.
Wiyot Tribe 1000 Wiyot Drive Loleta, California 95551 Contact: Brian Mead, Administrator	6/4/12: Letter sent via Internet 6/19/12: Letter was transferred to Monique (the new cultural person) and she is going to look for the letter and get back to us. 6/19/12: Spoke with Monique and she is sending us a letter.	No further action required.
Round Valley Indian Tribes of the Round Valley Reservation, James Russ, President; 77826 Covelo Road, Covelo, CA 95428; tribalcouncil@rvit.org ; and D. Hutt at dhutt@council.rvit.org	Emailed project information on 01/16/2018; Emailed project information on 01/30/2018	No response received to date.
Yurok Tribe of the Yurok Reservation, Thomas O'Rourke, Chairperson, PO Box 1027 Yurok, Klamath, CA 95548, torouroke@yuroktribe.nsn.us ; (707) 482-1350; (707) 482-1377	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Yurok Tribe of the Yurok Reservation, Robert McConnell, THPO, HC 67 P.O. Box 196, Highway 9, Hoopa, CA 95546, rmcconnell@yuroktribe.nsn.us , (707) 498-2536, (530) 625-4130 x1626	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Yurok Tribe of the Yurok Reservation; NAGPRA Coordinator; P.O. Box 1027, Yurok, Klamath CA 95548; (707) 482-1350 (707)954-5355, (707) 482-1377	Emailed project information on 01/16/2018; Left message regarding project on 01/30/2018	No response received to date.
Cher-Ae Heights Indian Community of the Trinidad Rancheria, Garth Sundberg Sr. Chairperson, P.O. Box 630, Trinidad, CA 95570-06; gsundberg@TrinidadRancheria.com ; (707) 677-0211	Letter mailed 01/18/2018; On 01/30/2018, PG&E CRS spoke with THPO, Rachel Sunberg, she stated that the project location was outside of her tribal sphere of concern.	No further action required.
Tsunawaw Council, Paul Ammon, Chairperson; P.O. Box 373; Salver, CA 95563; 530-629-4758	Emailed project information on 01/16/2018;	No response received to date.

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
	Left message regarding project on 01/30/2018	
Big Lagoon Rancheria; Virgil Moorehead, Chairperson; P.O. Box 3060, Trinidad , CA 95570; vmorehead@earthlink.net ; (707) 826-2079	Emailed project information on 01/16/2018 Left message regarding project on 01/30/2018	No response received to date.
Hoopa Valley Tribe; Ryan P. Jackson, Chairperson; P.O. Box 1348, Hoopa, CA 95546; (530) 625-4211	Letter mailed 01/18/2018; On 01/30/2018, PG&E CRS spoke with THPO, Keduescha Lara-Colegrove, she asked for project information to be emailed to her at hvthpo@gmail.com , and it was emailed to her on 01/30/2018	No response received to date.
Karuk Tribe; Russell Atteberry, Chairperson; P.O.Box1016; Happy Camp, CA 96039; (530) 493-1600	Letter mailed 01/18/2018; On 01/30/2018, PG&E CRS spoke with Dr. Alex Watts-Tobin, the Karuk Tribe's THPO and lead archaeologist and he asked for the project information to be emailed to him at atobin@karuk.us , and it was emailed to him on 01/30/2017	No response received to date.

Leslie Smirnoff Sakowicz, MA, RPA

Senior Cultural Resources Specialist

Environmental Management - Power Generation

Pacific Gas & Electric Company

Mobile: 925-708-5051

Office: 916-923-7094

2730 Gateway Oaks Drive, Suite 220

Sacramento, CA 95833

From: Cimino, Stephanie

Sent: Monday, May 6, 2019 4:17 PM

To: Forsythe, John <John.Forsythe@cpuc.ca.gov>; Janet Eidsness <JEidsness@bluelakerancheria-nsn.gov>; Green, Stephanie <stephanie.green@cpuc.ca.gov>; Sakowicz, Leslie <LSSH@pge.com>

Cc: erikacooper@brb-nsn.gov; Ted Hernandez <ted@wiyot.us>; Hazel James (hazel@wiyot.us) <hazel@wiyot.us>; Jacob Pounds <JPounds@bluelakerancheria-nsn.gov>; Cory Barringhaus <CBarringhaus@esassoc.com>; Maier, Lonn <Lonn.Maier@cpuc.ca.gov>

Subject: RE: Blue Lake THPO initial comment on CPUC review PG&E Permit, Humboldt Bay-Humboldt 60 cV Reconductoring Project, Eureka

Good afternoon!

Thank you for including me on this message. I am copying Leslie Sakowicz who is the PG&E Cultural Resource Specialist assigned to this project. I believe PG&E has coordinated with Blue Lake, Bear River and the Wiyot on this project at some point in the past, but I will defer to Leslie regarding details.

Thank you!

Stephanie

Stephanie Cimino

925-785-6731/s2cm@pge.com

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Thank you,

John

John Edward Forsythe, AICP

Senior Environmental Planner

Public Utilities Regulatory Analyst IV

California Public Utilities Commission

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Infrastructure Permitting and CEQA Section

300 Capital Mall, Suite 518

Sacramento, CA 95814

916.327.6782 (desk)

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website: www.cpuc.ca.gov

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Regards,

Janet P. Eidsness, THPO Blue Lake Rancheria

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Office (707) 668-5101 ext. 1037

jeidsness@bluelakerancheria-nsn.gov

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Jacob Pounds, Assistant THPO

jpounds@bluelakerancheria-nsn.gov

Office (707) 668-5101 ext. 1038

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[\[1\]](#) AS-1 is the location of a purported archaeological site in the PAL. This site was subject to archaeological testing. That testing is documented in the Browning 2018 report and was determine not to be cultural in nature.



Cher-Ae Heights Indian Community of the Trinidad Rancheria



June 3, 2019

John Edward Forsythe

California Public Utilities Commission

505 Van Ness Avenue

San Francisco, CA 94102-3298

Re: CPUC Review of Pacific gas and Electric's Permit to Construct Application For the Humboldt Bay

Dear John Edward Forsythe,

Thank you for contacting the Trinidad Rancheria and initiating consultation on this project. The project area is outside of the geographic area of concern for the Rancheria and therefore we have no interest in this project and no information to provide. However, I would be interested in a report after the project for our records.

With Respect,

Rachel Sundberg

Tribal Historic Preservation Officer

Cher-Ae Heights Indian Community of the Trinidad Rancheria



www.trinidadrancheria.com

1 Cher-Ae Lane • PO Box 630 • Trinidad, California • 95570 • 707.677.0211 • 707.677.3921 (fax)

