CALIFORNIA PUBLIC UTILITIES COMMISSION

PACIFIC GAS AND ELECTRIC COMPANY
PLAINFIELD SUBSTATION UPGRADE PROJECT

Final Initial Study/Mitigated Negative Declaration

July 2025

A-24-06-008

State Clearinghouse No. 2025040382

Prepared for:
California Public Utilities Commission

Prepared by:
Environmental Science Associates

ESA

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Acronyms and Other Abbreviations

Acronym	Abbreviation
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
PRC	California Public Resources Code
CPUC	California Public Utilities Commission
GO	General Order
IS	Initial Study
MND	Mitigated Negative Declaration
NOC	Notice of Completion
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
PG&E	Pacific Gas and Electric Company
PTC	Permit to Construct
SWRCB	State Water Resources Control Board
VMT	Vehicle miles traveled

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CHAPTER 1
Introduction

1.1 CEQA Process

The California Public Utilities Commission (CPUC) prepared an Initial Study (IS) to evaluate environmental impacts that could result from approval of the June 18, 2024, application from Pacific Gas and Electric Company (PG&E or Applicant) (A.24-06-008) for a Permit to Construct (PTC) the Plainfield Substation Upgrade Project (Project). The CPUC prepared the IS pursuant to the requirements of the California Environmental Quality Act (CEQA) and CPUC General Order (GO) 131-D. The IS determined that with implementation of mitigation measures, the Project would not have a significant adverse effect on the environment, and a Draft Mitigated Negative Declaration (MND) was prepared.

On April 7, 2025, 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 an MND, and released the IS/MND for a 30-day public review period. The NOI was distributed to federal, state, and local agency representatives, property owners within 1,000 feet of the Project site, and other interested individuals. Additionally, a Public Notice was published in the *Davis Enterprise* and *Woodland Democrat,* which are newspapers in general circulation within the Project area, on April 9, 2025, announcing the availability of the 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 April 9, 2025, and ended on May 9, 2025. Copies of all written comments received on the IS/MND are contained in this Final IS/MND.

This Final IS/MND has been prepared pursuant to CEQA and the CEQA Guidelines.[1] This document incorporates comments received during the public review period and contains responses to those comments by the CEQA Lead Agency (the CPUC). The comments received resulted in minor changes to the Draft IS/MND to correct, amplify, or clarify certain points; however, the Draft IS/MND has not been substantially revised following issuance of its NOI. The Final IS/MND consists of the following:

(a) A list of persons, organizations, and public agencies that commented on the Draft IS/MND;

(b) Comments and recommendations received on the Draft IS/MND, including responses to the comments and recommendations;

(c) Revisions to the Draft IS/MND based on public comments and recommendations; and

(d) Revised consolidated Draft IS/MND (**Appendix A**).

(e) Proof of Newspaper Postings and Draft IS/MND and NOI Mailings (**Appendix B**).

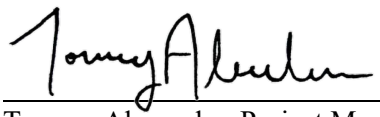
[1] Pub. Res. Code §§21000-21189; 14 Cal. Code Regs. §§15000 – 15387.

1.2 Public Review Process

On April 9, 2025, 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. The CPUC established a comment voicemail line, (510) 463-6731; an email address, Plainfield@esassoc.com; and a Project website (https://ia.cpuc.ca.gov/environment/info/esa/plainfield/index.html) to enable the public to ask questions, provide input, and obtain additional information on the Project. The electronic version of the Draft IS/MND posted to the Project website was formatted for document accessibility pursuant to Assembly Bill 434, Government Code Section 11546.7 requirements. Paper copies of the Draft IS/MND were made available upon request. In accordance with Section 15105(b) of the CEQA Guidelines, the public review and comment period for the Draft IS/MND began on April 9, 2025, and ended on May 9, 2025. All comments received are presented and discussed in this document. Responses to comments received along with revisions to the IS/MND are provided in Section 2.3, *Responses to Comments*.

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 potentially 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 do 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.



7/1/2025

Tommy Alexander, Project Manager
Energy Division
California Public Utilities Commission

Date

CHAPTER 2
Comments and Responses

2.1 Introduction

This chapter includes copies of the comment letters received during and following the public review period on the Draft Initial Study/Mitigated Negative Declaration (IS/MND) for the Plainfield Substation Upgrade Project (Project), and the California Public Utility Commission's (CPUC's) responses to those comments. The review period began April 9, 2025, and ended May 9, 2025.

2.2 List of Comment Letters Received

Three comment letters were timely received on the Draft IS/MND during the public review period and one additional comment letter was received on the Draft IS/MND after the close of the public review period. All are addressed in this Final IS/MND. Letter A is from a state agency, Letter B is from a local agency, Letter C is from an investor-owned utility, and Letter D is from a tribal nation. **Table 2-1** below lists the letters in the order in which they were received.

TABLE 2-1
LIST OF COMMENTERS

Letter	Commenter	Date Submitted
A	CDOC Geologic Energy Management Division (CalGEM)	May 6, 2025
B	Central Valley Regional Water Quality Control Board	May 6, 2025
C	Pacific Gas & Electric Company (PG&E)	May 9, 2025
D	Yocha Dehe Wintun Nation	May 14, 2025

2.3 Responses to Comments

This section contains responses to all of the substantive comments received on the Draft IS/MND. On the following pages of this section, each comment letter is reproduced in its entirety, followed by the responses to each specific comment within the letters. Each comment was assigned a comment number (e.g., A-1, A-2, etc.) as indicated in the right margin of the comment letters.

As a result of comments, some changes have been made to the previously published text of the Draft IS/MND; however, no substantive changes have been made due to comments received during the public

review period. The 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.

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California
Department of Conservation
Geologic Energy Management Division

Gavin Newsom, Governor
Jennifer Lucchesi, Director
715 P Street, MS 1803
Sacramento, CA. 95814
T: (916) 445-5986

5/6/2025

California Public Utilities Commission (CPUC)
Tommy Alexander
505 Van Ness Avenue
San Francisco, CA 94102
Tommy.Alexander@cpuc.ca.gov

Assessor Parcel Number(s): 041005099

Property Owner(s): N/A

Project Location Address: CR 27 and CR 99, Woodland, CA 95695

Project Title: Plainfield Substation Upgrade Project

Public Resources Code (PRC) § 3208.1 establishes re-abandonment responsibility when previously plugged and abandoned oil, gas or geothermal wells will be impacted by planned property development or construction activities. Local permitting agencies, property owners, and/or developers should be aware of, and fully understand, that significant and potentially dangerous issues may be associated with development near previously abandoned oil, gas, and geothermal wells.

The California Geologic Energy Management Division (CalGEM) has received the above-referenced project dated 4/7/2025. To assist local permitting agencies, property owners, and developers in making safe and practical land use decisions regarding potential development near oil, gas, or geothermal wells, the Division provides a table of the wells within the parcel boundary or in its vicinity, based on the Division's Well Finder database (link found at the bottom of this letter).

A-1

The Division categorically advises against building over, or in any way impeding access to, oil,

A-2

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gas, or geothermal wells. Impeding access to a well could result in the need to remove any structure or obstacle that prevents or impedes access including, but not limited to, buildings, housing, fencing, landscaping, trees, pools, patios, sidewalks, roadways, and decking at the landowner's expense if there is a need to access a well. Maintaining sufficient access is considered the ability for a well servicing unit and associated necessary equipment (consisting of well servicing rig, pumping equipment, pipe trailer) to reach a well from a public street or access way, solely over the parcel on which the well is located. A well servicing unit, and any necessary equipment, should be able to pass unimpeded along and over the route, and should be able to access the well without disturbing the integrity of surrounding infrastructure. Impermeable barriers such as asphalt, concrete, and plastic may trap hazardous gases and liquids underneath and could create a safety hazard if built over a well that later develops a leak.

The Division recommends that any well for which access is impeded or built over, against the Division's advice, should be evaluated by a qualified petroleum professional for compliance with the statutory objectives of isolating all hydrocarbon-bearing strata; protecting underground and surface waters; prevention of subsequent damage to life, health, property, and other resources; and prevention of loss of oil, gas, or reservoir energy. The Division recommends that wells that do not meet these standards are abandoned or re-abandoned prior to construction. The well information can be accessed through https://maps.conservation.ca.gov/doggr/wellfinder/. PRC § 3208, subdivision (a), provides the primary statutory authority for the Division to oversee adequate abandonment of wells. Additionally, the Division has developed the regulatory guidance for operators to be followed during well abandonment, which are listed within California Code of Regulation, title 14 (CCR) § 1723 and associated sub-sections (for onshore wells), and § 1745 and associated sub-sections (for offshore wells).

A-2 cont.

There is no guarantee that a well abandoned in compliance with current Division requirements as prescribed by law will not start leaking in the future. Due to the inability to predict all subsurface conditions or changes, it always remains a possibility that any well may start to leak oil, gas, and/or water after abandonment, no matter how thoroughly the well was plugged and abandoned. The Division acknowledges wells plugged and abandoned to the most current Division requirements as prescribed by law have a lower probability of leaking in the future, however there is no guarantee that such abandoned wells will not leak.

A-3

The Division advises that all wells identified on the development parcel prior to, or during, development activities be tested for liquid and gas leakage. Surveyed locations in Latitude and Longitude, NAD 83 decimal format, and leak testing results should be provided to the Division. The Division expects any wells found leaking to be reported to the Division immediately.

PRC § 3208.1 gives the Division the authority to order or permit the re-abandonment of any well

A-4

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where it has reason to question the integrity of the previous abandonment. Responsibility for re-abandonment costs may be affected by the choices made by the local permitting agency, property owner, and/or developer in considering the general advice set forth in this letter. The PRC continues to define the person or entity responsible for re-abandonment as:

1. The property owner - If the well was plugged and abandoned in conformance with Division requirements at the time of abandonment, and in its current condition does not pose an immediate danger to life, health, and property, but requires additional work solely because the owner of the property on which the well is located proposes construction on the property that would prevent or impede access to the well for purposes of remedying a currently perceived future problem, then the owner of the property on which the well is located shall obtain all rights necessary to re-abandon the well and be responsible for the re-abandonment.

2. The person or entity causing construction over or near the well - If the well was plugged and abandoned in conformance with Division requirements at the time of plugging and abandonment, and the property owner, developer, or local agency permitting the construction failed either to obtain an opinion from the supervisor or district deputy as to whether the previously abandoned well is required to be re-abandoned, or to follow the advice of the supervisor or district deputy not to undertake construction that impedes access, then the person or entity causing the construction over or near the well shall obtain all rights necessary to re-abandon the well and be responsible for the re-abandonment.

3. The party or parties responsible for disturbing the integrity of the abandonment - If the well was plugged and abandoned in conformance with Division requirements at the time of plugging and abandonment, and after that time someone other than the operator or an affiliate of the operator disturbed the integrity of the abandonment in the course of developing the property, then the party or parties responsible for disturbing the integrity of the abandonment shall be responsible for the re-abandonment.

A-4 cont.

Should any wells require abandonment or re-abandonment, the responsible party must submit a Notice of Intention (NOI) to the Division through WellSTAR. The NOI form can be accessed in the 'Plugging and Abandonment' section of the following link: https://www.conservation.ca.gov/calgem/for_operators. No well work may be performed on any oil, gas, or geothermal well without written approval from the Division. Well work requiring approval includes, but is not limited to, mitigating leaking gas or other fluids from abandoned wells, modifications to well casings, and/or any other re-abandonment work. The Division also regulates the top of a plugged and abandoned well's minimum and maximum depth below final grade. CCR §1723.5 states well casings shall be cut off at least 5 feet but no more than 10 feet below the surface of the ground. If any well needs to be lowered or raised (i.e. casing cut down

A-5

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or casing riser added) to meet this regulation, a permit from the Division is required before work can start. A-5 cont.

The Division makes the following additional recommendations to the local permitting agency, property owner, and developer:

1. To ensure that present and future property owners are aware of (a) the existence of all wells located on the property, and (b) potentially significant issues associated with any improvements near oil or gas wells, the Division recommends that information regarding the above identified well(s), and any other pertinent information obtained after the issuance of this letter, be communicated to the appropriate county recorder for inclusion in the title information of the subject real property.

2. The Division recommends that any soil containing hydrocarbons be disposed of in accordance with local, state, and federal laws. Please notify the appropriate authorities if soil containing significant amounts of hydrocarbons is discovered during development.

A-6

As indicated in PRC § 3106, the Division has statutory authority over the drilling, operation, maintenance, and abandonment of oil, gas, and geothermal wells, and attendant facilities, to prevent, as far as possible, damage to life, health, property, and natural resources; damage to underground oil, gas, and geothermal deposits; and damage to underground and surface waters suitable for irrigation or domestic purposes. In addition to the Division's authority to order work on wells pursuant to PRC §§ 3208.1 and 3224, it has authority to issue civil and criminal penalties under PRC §§ 3236, 3236.5, and 3359 for violations within the Division's jurisdictional authority. The Division does not regulate grading, excavations, or other land use issues.

Should you have any questions, or if any wells are encountered that were not part of this letter, contact CalGEM at 916-322-1110 or via email at CalGEMNorthern@conservation.ca.gov.

Sincerely,

May Soe

May Soe
Supervising Oil and Gas Engineer – Northern District

cc: Tommy Alexander – Project Manager

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The wells listed below are reported to be located within and nearby the parcel boundary, and may have future access impeded:

A-7

No wells in the project area.

Response to Letter A – CalGEM

Response A-1 The commenter details information regarding Public Resources Code (PRC) § 3208.1 and confirms receipt of the Draft IS/MND for the Plainfield Substation Upgrade Project dated 4/7/2025. This comment has been received by the lead agency.

Response A-2 The commenter advises against building over or impeding access to oil, gas, or geothermal wells. The comment provides information on how to find well information and makes recommendations regarding wells with impeded access. The commenter presents information regarding California Code of Regulation, title 14 (CCR) § 1723 and associated sub-sections (for onshore wells), and § 1745 and associated sub-sections (for offshore wells). While not project specific, this information has been received by the lead agency.

Response A-3 The commenter acknowledges that there is no guarantee that previously abandoned wells will not start leaking in the future. The commenter recommends that any well found leaking be reported to CalGEM immediately. Although this comment does not raise "significant environmental issues" for purposes of CEQA (PRC section 21091[d][2][B]; CEQA Guidelines sections 15088[c], 15132[d], 15204[a]), the lead agency has received and reviewed it and has included it in the record for consideration by decision-makers separate from the CEQA process.

Response A-4 The commenter provides details on PRC § 3208.1, and expresses adherence to the re-abandonment policy. While these comments do not raise "significant environmental issues" for purposes of CEQA (PRC section 21091[d][2][B]; CEQA Guidelines sections 15088[c], 15132[d], 15204[a]), the lead agency has received and reviewed them and has included them in the record for consideration by decision-makers separate from the CEQA process.

Response A-5 The commenter provides information on CalGEM's WellSTAR, overall approval process, and regulations pertaining to well work requiring abandonment or re-abandonment. The lead agency has received this comment and has incorporated it into the comment record.

Response A-6 The commenter makes recommendations to the local permitting agency, property owner, and developer regarding existing wells. The commenter also stipulates that CalGEM does not regulate grading, excavations, or other land use issues. While these comments do not raise "significant environmental issues" for purposes of CEQA (PRC section 21091[d][2][B]; CEQA Guidelines sections 15088[c], 15132[d], 15204[a]), the lead agency has received and reviewed them and has included them in the record.

Response A-7 The commenter states that there are no wells in the project area. As provided in Section 3.12, *Mineral Resources*, of the IS/MND, there are no wells in the project area. The comment does not pertain to the accuracy or adequacy of the CEQA review. Nonetheless, the comment is acknowledged and has been included in the formal project record for consideration by decision-makers.

CALIFORNIA Water Boards

GAVIN NEWSOM
GOVERNOR

YANA GARCIA
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

6 May 2025

Tommy Alexander
California Public Utilities Commission (CPUC)
505 Van Ness Avenue
San Francisco, CA 94102
Tommy.Alexander@cpuc.ca.gov

COMMENTS TO REQUEST FOR REVIEW FOR THE MITIGATED NEGATIVE DECLARATION, PLAINFIELD SUBSTATION UPGRADE PROJECT, SCH#2025040382, YOLO COUNTY

Pursuant to the State Clearinghouse's 7 April 2025 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Mitigated Negative Declaration* for the Plainfield Substation Upgrade Project, located in Yolo County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

B-1

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin

Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website: http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/ B-1 cont.

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at: https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality. B-2

II. Permitting Requirements

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250. B-3

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters B-4

of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

B-4 cont.

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

B-5

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

B-6

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage

B-7

under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

B-7 cont.

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

B-8

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.

Peter G. Minkel
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

Selena Whitney
Environmental Science Associates
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Jo Lynn Lambert
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PGE
David.Kraska@pge.com

Response to Letter B – Central Valley Regional Water Quality Control Board

Response B-1 The commenter provides information regarding the adoption of a Basin Plan. While this comment does not raise "significant environmental issues" for purposes of CEQA (PRC section 21091[d][2][B]; CEQA Guidelines sections 15088[c], 15132[d], 15204[a]), the lead agency has received and reviewed it and has included it in the record.

Response B-2 The commenter suggests that antidegradation considerations from any wastewater discharges be made within the analysis in compliance with the State Water Board Resolution 68-16, and that the IS/MND evaluate potential impacts to both surface and groundwater quality. Section 3.10, *Hydrology and Water Quality*, of the IS/MND evaluates impacts to both surface and groundwater quality.

Response B-3 The commenter provides information on the Clean Water Act Section 404 permitting process. The Project is not anticipated to require a 404 permit, and this change has been reflected throughout the IS/MND.

Response B-4 The commenter provides information on the Clean Water Act Section 401 permitting process. However, because the project is not anticipated to require a United States Army Corps of Engineers permit, no changes to the IS/MND are needed. Nonetheless, the comment has been received by the lead agency and included in the formal record.

Response B-5 The commenter provides information regarding waste discharge requirements under the California Porter-Cologne Water Quality Control Act. Section 3.10, *Hydrology and Water Quality,* of the IS/MND discusses the applicable National Pollutant Discharge Elimination System (NPDES) Program, and considers this regulatory framework in the analysis.

Response B-6 The commenter provides information on how to obtain a dewatering permit. However, as specified in Section 2.0, *Project Description,* a dewatering permit is not required or needed as part of the Project. Thus, while this comment does not raise "significant environmental issues" for purposes of CEQA (PRC section 21091[d][2][B]; CEQA Guidelines sections 15088[c], 15132[d], 15204[a]), the lead agency has received and reviewed it and has included it in the record.

Response B-7 The commenter provides information on how to obtain a Limited Threat Discharges to Surface Water NPDES permit. However, as specified in Executive Summary Table ES-2*, Anticipated Permit, Approval, and Consultation Requirements,* the applicant will apply for all necessary NPDES permits, including a Limited Threat Discharges to Surface Water NPDES permit. Thus, while this comment does not raise "significant environmental issues" for purposes of CEQA (PRC section 21091[d][2][B]; CEQA Guidelines sections 15088[c], 15132[d], 15204[a]), the lead agency has received and reviewed it and has included it in the record.

Response B-8 The commenter provides information on how to obtain a NPDES permit if waste charge could affect surface waters of the State. However, as specified in Section 2.0, *Project Description,* the applicant will apply for a NPDES permit. Thus, while this comment does not raise "significant environmental issues" for purposes of CEQA (PRC section 21091[d][2][B]; CEQA Guidelines sections 15088[c], 15132[d], 15204[a]), the lead agency has received and reviewed it and has included it in the record.

Dear Mr. Alexander:

Thank you for the opportunity to review the draft Initial Study/Mitigated Negative Declaration (draft MND) for the Plainfield Substation Upgrade Project (Project). Pacific Gas and Electric Company (PG&E) appreciates the effort expended by Commission staff and its consultants to prepare a comprehensive CEQA document to cover the project. C-1

Below, PG&E suggests a few minor revisions and clarifications to correct factual, legal or typographical errors in the MND. C-1

MND: The MND uses "Willow Slough" and "Willow Creek" interchangeably. PG&E would like to clarify that "Willow Slough" is the correct name for the watercourse and should be used consistently throughout the document. C-2

Table ES-2 on page ES-12: Please delete the reference to the requirement for a Clean Water Act Section 404 permit. Table ES-2 states a Clean Water Act Section 404 permit is anticipated from the U.S. Army Corps of Engineers. The Table states "Jurisdiction over waters of the United States associated with the replacement of the culverts along CR 27, which flow into a direct tributary to Willow Slough.

Replacement of the culverts along CR 27 do not require a Clean Water Act Section 404 permit as the features alongside CR 27 are not jurisdictional waters of the United States. These features are roadside ditches excavated wholly in and draining only dry land and do not carry a relatively permanent flow of water. 40 C.F.R. 120.2(b). In addition, these features are not relatively permanent, standing or continuously flowing bodies of water. 40 C.F.R. 120.2(a)(3). C-3

Instead, as noted elsewhere in Table ES-2, PG&E will apply for Waste Discharge Requirements from the Central Valley Regional Water Quality Control Board for discharge of fill to waters of the states associated with installation of the culverts along CR 27. C-3

Chapter 2.5.2.13 on page 2-18: The MND states that "All four existing concrete TSP foundations within the substation site would be removed and disposed of appropriately." PG&E plans to recycle the concrete foundations in alignment with Yolo County's waste diversion requirements. C-4

Chapter 3.7.4.2 on page 3.7-13 (Impact Criteria aii-aiii): The MND referenced that "the Project would be subject to moderate to severe seismic ground shaking because of the relatively close proximity to the Dunnigan Hills and Vaca fault zones." In the PEA, PG&E has identified that Dunnigan Hills fault, the nearest fault, is approximately 8 miles northwest of the Project. C-5

Chapter 3.17.4.2 on page 3.17-6 (Impact Criterion b): PG&E offers the following clarifying language and additional context regarding the CEQA Guidelines referenced in the first paragraph, as shown in track changes below. C-6

"Section 15064.3 was added to the CEQA Guidelines to provide guidance for determining the significance of transportation impacts. This section provides criteria for analyzing a project's transportation impacts. As noted in CEQA Guidelines Section 15064.3(a), "For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project." Because the Project would not be a traditional land use or transportation project that would generate vehicle miles traveled (VMT) on a regular basis, Criteria 1 Land Use Projects (Section 15064.3[b][1] and Criteria 2 Transportation Projects (Section 15064.3[b][2]) are not applicable. Criteria 3 A Qualitative Analysis of transportation impacts (Section 15064.3[b][3]) is applicable to the Project and is discussed below."

C-6 cont.

PG&E appreciates the opportunity to provide these comments. Please feel free to contact me if further information or clarification is necessary.

Sincerely,

Tony Aguilar

Tony Aguilar
Land Planner
Pacific Gas and Electric Company

Response to Letter C – PG&E

Response C-1 The comment is an introductory statement that expresses appreciation for the effort set forth in the CEQA document. No further response is warranted or required under CEQA.

Response C-2 The commenter suggests "Willow Slough" and "Willow Creek" are used interchangeably throughout the document, and voices that "Willow Slough" is the correct term for the watercourse. This comment has been received by the lead agency, and changes have been made throughout the entirety of the IS/MND to reflect this revision, except in one instance (within Section 3.4.5, *Biological Resources Environmental Impacts*, when specifically referring to the nearest stream).

Response C-3 The commenter suggests removing references to the requirement for a Clean Water Act Section 404 permit, as the commenter expresses that replacement of the culverts along County Road 27 does not require such a permit. This comment has been received by the lead agency, and changes have been made throughout the entirety of the IS/MND to reflect this revision.

Response C-4 The commenter clarifies that all four existing concrete tubular steel pole foundations will be recycled in alignment with the County's waste diversion requirements. While this comment does not raise "significant environmental issues" for purposes of CEQA (PRC section 21091[d][2][B]; CEQA Guidelines sections 15088[c], 15132[d], 15204[a]), the lead agency has received and reviewed it and has included it in the record.

Response C-5 The commenter clarifies the nearest fault is approximately 8 miles northwest of the Project. However, this is stated under Section 3.7.1.4 *Seismic and Geologic Hazards*, of the IS/MND. Thus, the comment has been noted and no further response is warranted or required under CEQA.

Response C-6 The commenter provides suggested language regarding the impact analysis on transportation. This comment has been received by the lead agency, and the following update to the IS/MND has been made within Section 3.17.4.2, *Transportation, Direct and Indirect Effects*:

"Section 15064.3 was added to the CEQA Guidelines to provide guidance for determining the significance of transportation impacts. This section provides criteria for ~~determining~~ a project's transportation impacts~~, .including for land use projects (Section 15064.3[b][1]) and transportation projects (Section 15064.3[b][2]).~~ As noted in CEQA Guidelines Section 15064.3(a), "For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project." Because the Project would not be a traditional land use or transportation project that would generate vehicle miles traveled (VMT) on a regular basis, Criteria 1 Land Use Projects (Section 15064.3[b][1] and Criteria 2 Transportation Projects (Section 15064.3[b][2]) are not applicable. Criteria 3 A qualitative analysis of transportation impacts (Section 15064.3[b][3]) is ~~provided accordingly (Section 15064.3[b][3])~~ applicable to the Project and is discussed below."

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Comment Letter D

YOCHA DEHE
CULTURAL RESOURCES

May 14, 2025

CA Public Utilities Commission
Attn: Plainfield Substation/Tommy Alexander
505 Van Ness Avenue
San Francisco, CA 94102

RE: PG&E Plainfield Substation Upgrades YD-09192022-01

Dear Mr. Alexander:

Thank you for your project notification dated, Tuesday, April 8, 2025, regarding cultural information on or near the proposed PG&E Plainfield Substation Upgrades. We appreciate your effort to contact us and wish to respond.

The Cultural Resources Department has reviewed the project and concluded that it is within the aboriginal territories of the Yocha Dehe Wintun Nation. Therefore, we have a cultural interest and authority in the proposed project area.

D-1

Based on the information provided, Yocha Dehe Wintun Nation is not aware of any known cultural resources near this project site and a cultural monitor is not needed. However, we recommend cultural sensitivity training for any pre-project personnel to be added to the permit as a condition of approval.

D-2

To execute a cultural sensitivity training agreement prior to the start of the project, please contact:

Eric Hernandez, Site Protection Manager
Yocha Dehe Wintun Nation
Phone: (530) 723 - 3313
Email: ehernandez@yochadehe.gov

Please refer to identification number YD-09192022-01 in correspondence concerning this project.

Thank you for providing us the opportunity to comment.

D-3

Sincerely,

Signed by:
Yvonne Perkins
8DD0BD089ED6438...
Tribal Historic Preservation Officer

Response to Letter D – Yocha Dehe Wintun Nation

Response D-1 The comment is an introductory statement that expresses appreciation for the opportunity to participate in the CEQA process. No further response is warranted or required under CEQA.

Response D-2 The commenter provides input that the Yocha Dehe Wintun Nation is not aware of any known cultural resources near the project site. The commenter recommends a cultural resources training as a condition of approval. As stated in the IS/MND Section 2, *Project Description,* Applicant Proposed Measure CUL-4, *Worker Education Training*, is included as part of the Project and is intended to ensure that appropriate steps or actions would be taken if there is an inadvertent discovery of a tribal cultural resource. The comment has been considered and recorded, and no further response is warranted or required under CEQA.

Response D-3 The commenter provides information regarding the execution of a cultural sensitivity training agreement, including contact information. As stated in the IS/MND Section 2, *Project Description,* Applicant Proposed Measure CUL-4, *Worker Education Training*, would be included as part of the Project. The comment has been considered and recorded, and no further response is warranted or required under CEQA.

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Appendix A
Revised IS/MND

CALIFORNIA PUBLIC UTILITIES COMMISSION

PACIFIC GAS AND ELECTRIC COMPANY
PLAINFIELD SUBSTATION UPGRADE PROJECT

Final Initial Study/Mitigated Negative Declaration

July 2025

A-24-06-008

State Clearinghouse No. 2025040382

Prepared for:
California Public Utilities Commission

Prepared by:
Environmental Science Associates

ESA

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Acronyms and Other Abbreviations

Abbreviation	Definition
2022 Scoping Plan	2022 *Scoping Plan for Achieving Carbon Neutrality*
A-N	Agricultural Intensive
AB	Assembly Bill
af/yr	acre-feet per year
APLIC	Avian Power Line Interaction Committee
APM	Applicant-proposed measure
APN	Assessor's Parcel Number
basin plan	water quality control plan
Basin Plan	Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin
BMP	best management practices
CAAP	Yolo County Climate Action and Adaptation Plan
CAISO	California Independent System Operator Corporation
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CHP	California Highway Patrol
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
Construction General Permit	General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities
CPUC	California Public Utilities Commission
CR	County Road
CWA	Clean Water Act
dBA	A-weighted decibels
DPM	diesel particulate matter
DTSC	California Department of Toxic Substances Control

Abbreviation	Definition
EIR	environmental impact report
EMF	electric and magnetic fields
FEMA	Federal Emergency Management Agency
FESA	federal Endangered Species Act
FHSZ	Fire Hazard Severity Zones
FLPMA	Federal Land Policy and Management Act
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
GHG	greenhouse gas
GSP	Groundwater Sustainability Program
GWP	global warming potential
HCP	Habitat Conservation Plan
HFTD	High Fire Threat District
HMBP	Hazardous Materials Business Plan
in/sec	inches per second
IS/MND	initial study and mitigated negative declaration
kV	kilovolt
LED	light-emitting diode
L_{eq}	energy-equivalent noise level
MMCRP	Mitigation Monitoring, Compliance, and Reporting Program
MPAC	Modular Protection Automation and Control
MRHCP	Multi-Regional Habitat Conservation Plan
MRZ	Mineral Resources Zone
$MTCO_2e$	metric tons of carbon dioxide equivalent
MVAR	megavolt ampere reactive power
NAHC	Native American Heritage Commission
NCCP	Natural Communities Conservation Plan
NHPA	National Historic Preservation Act
NERC	North American Electric Reliability Corporation
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System,
O_3	ozone
O&M	operation and maintenance
PG&E	Pacific Gas and Electric Company

Abbreviation	Definition
$PM_{2.5}$	particulate matter less than or equal to 2.5 microns in diameter
PM_{10}	particulate matter less than or equal to 10 microns in diameter
PPV	peak particle velocity
PRC	Public Resources Code
R.	Rulemaking
RPS	Renewable Portfolio Standards
RWQCB	regional water quality control board
SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SF_6	sulfur hexafluoride
SMARA	Surface Mining and Reclamation Act of 1975
SO_2	sulfur dioxide
SPCC	Spill Prevention, Control, and Countermeasure
State Water Board	State Water Resources Control Board
SVAB	Sacramento Valley Air Basin
SWPPP	storm water pollution prevention plan
TAC	toxic air contaminant
TSP	tubular steel poles
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VMT	vehicle miles traveled
VdB	vibration decibels
WEAP	Worker Environmental Awareness Program
WOTUS	waters of the United States
YSAQMD	Yolo-Solano Air Quality Management District

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EXECUTIVE SUMMARY

ES.1 Introduction

Pacific Gas and Electric Company (PG&E or Applicant) submitted an application (A-24-06-008) to the California Public Utilities Commission (CPUC) on June 18, 2024, for a permit to construct (PTC) for the Plainfield Substation Upgrade Project (Project) (PG&E 2024a). The application includes the Proponent's Environmental Assessment (PEA) prepared pursuant to Rule 2.4 of the CPUC's Rules of Practice and Procedure (PG&E 2024b). Should the CPUC approve the PTC, PG&E would upgrade and expand the existing Plainfield Substation's 60-kilovolt (kV) system to address low-voltage concerns. The Project was identified by the California Independent System Operator Corporation (CAISO) to ensure the reliability of the CAISO-controlled grid.

Pursuant to the requirements of the California Environmental Quality Act (CEQA) and CPUC General Order 131-D, the CPUC has prepared an initial study (IS) to evaluate the 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 (California Public Resources Code Section 21080[c][1]). Should an IS prepared for a project indicate that significant environmental effect(s) cannot be mitigated to a less-than-significant level, the CPUC shall prepare an environmental impact report (EIR).

As stated in Public Resources Code Section 210645, a mitigated negative declaration (MND) may be prepared when:

> [T]*he 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.*

Based on the results of the IS, the CPUC has determined that the appropriate type of CEQA documentation for this Project is an MND.

This draft IS/MND identifies the potential environmental effects of the Project and evaluates their levels of significance. Project effects would be reduced to a less-than-significant level through the implementation of mitigation measures. This information is intended to describe construction, operation and maintenance requirements, and activities to inform the Project's environmental effects analysis. All resource areas in the CEQA Guidelines Appendix G Checklist were assessed: Aesthetics; Agriculture and Forestry Resources; Air Quality; Biological Resources; Cultural Resources; Energy; Geology and Soils; Greenhouse

Gas Emissions; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning; Mineral Resources; Noise; Population and Housing; Public Services; Recreation; Transportation; Tribal Cultural Resources, Utilities and Service Systems; and Wildfire.

The CPUC will use the information in this draft IS/MND to inform its decision on whether or not to approve the PG&E application to construct and operate the Project. The draft IS/MND has been made available for public review on the CPUC website, and the public has been notified through newspaper noticing in the *Woodland Daily Democrat* and the *Davis Enterprise*.

ES.2 Project Description

PG&E proposes to expand the existing Plainfield Substation to improve energy transmission reliability by addressing low-voltage concerns and overload conditions. The Plainfield Substation is located in unincorporated Yolo County, midway between the cities of Woodland and Davis, and serves approximately 58,000 residences and businesses, including commercial agricultural operations. Currently, the existing substation is equipped with two transformers, rated at 60/12 kV 7.5 megavolt amperes (MVA) and 115x60/12 kV 30 MVA, respectively. The substation expansion consists of installing two new 5-megavolt ampere reactive power (MVAR) shunt capacitor banks and related equipment that would boost the voltage of the 60 kV lines to acceptable levels. The substation expansion includes the following components:

- Upgrades to the existing 60 kV bus.
- Installation of two new shunt capacitor banks.
- Modifications to the existing Spill Prevention, Control, and Countermeasure containment system.
- Installation of a stormwater retention pond.
- Installation of a new station battery enclosure and a new, larger modular protection automation and control enclosure.
- Replacement and installation of tubular steel poles and all-aluminum conductor power lines.
- New fencing, lighting, and access road improvements.

The existing substation currently occupies approximately 0.9 acre. PG&E would purchase a portion of an adjacent parcel to expand the substation 415 feet east and 235 feet south of the existing fence line, adding 5.2 acres to the substation footprint. Together, the existing and expanded Plainfield Substation would occupy 6.1 acres. Additional details are provided in Chapter 2, *Project Description*.

ES.2.1 Project Objectives

The Project proposes to address CAISO-identified reliability issues to correct the low-voltage issues and overload conditions at the Plainfield Substation 60 kV bus by installing two new 5-MVAR shunt capacitor banks. The Applicant has identified the following objectives for the Project:

(1) Increase service reliability to customers, including to agricultural operations, in unincorporated Yolo County and the cities of Woodland and Davis, by correcting low-voltage issues and alleviating overload conditions due to growing load in the existing system.

(2) Meet performance requirements established by the North American Electric Reliability Corporation that the electric system would operate reliably during normal system conditions.

(3) Design and build the CAISO-approved project in a safe and cost-effective manner while minimizing environmental impacts.

ES.3 Environmental Determination

This draft IS/MND has been prepared to identify the potential environmental effects resulting from Project implementation, evaluate the level of significance of these effects, and identify the necessary Project revisions (i.e., mitigation measures) that would avoid the effects or reduce them below established thresholds of significance. This draft IS/MND relies on information from the PTC application, the accompanying PEA (PG&E 2024b), Project site reconnaissance, PG&E's responses to data requests by the CPUC, and the environmental expertise of CPUC's consultant that prepared this draft IS/MND.

In its PEA, PG&E identified a number of Applicant-proposed measures (APMs) intended to avoid or reduce potential impacts associated with the Project. Upon adoption of the final MND, the APMs would become part of the Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) to ensure that the CPUC would monitor and enforce the implementation of and compliance with the measures. PG&E has not proposed avoidance and minimization measures or best management practices to reduce effects associated with the proposed PG&E facility. Based on the analysis documented in this draft IS/MND, in addition to the implementation of APMs, mitigation measures are recommended for the following resource areas to reduce potentially significant impacts of the Project to a less-than-significant level:

- Biological Resources.
- Utilities and Service Systems.

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 IS/MND, the mitigation measures would become part of the Project's MMCRP.

Environmental impacts, applicable APMs, and mitigation measures for the Project are provided in Chapter 3 of this draft IS/MND. In addition, **Table ES-1**, ***Environmental Impacts with Implementation of Applicant-Proposed Measures and Mitigation Measures***, identifies the potentially significant environmental impacts of the Project, applicable APMs, and recommended mitigation measures that would reduce those impacts to a less-than-significant level. The draft MMCRP included in Chapter 5 of this draft IS/MND would be updated as needed to reflect the CPUC's decision on the Project, including any revisions to the mitigation measures that must be implemented should the Project be approved.

TABLE ES-1
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT-PROPOSED MEASURES AND MITIGATION MEASURES

Resource Area / Measure Number	Applicant-Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Significance with Measures Implemented
Applicant Proposed Measures		
APM AES-1	**Construction Site.** Construction activities will be kept as clean and inconspicuous as practical. All Project sites will be maintained in a clean and orderly state. Construction staging areas will be sited away from public view where possible. Upon completion of Project construction, Project staging and temporary work areas will be returned to approximate pre-Project conditions, including regrading of the site and revegetation or repaving of disturbed areas similar to pre-existing contours and conditions.	Less than significant
APM AES-2	**New Source of Substantial Light or Glare Avoidance.** New security lighting at the substation will be directed on-site to reduce potential visibility from offsite locations. Nighttime lighting will be directed away from residential areas and have shields to prevent light spillover effects.	Less than significant
APM AES-3	**Use of Galvanized Finish on Tubular Steel Poles.** Structures and equipment at the expanded substation will generally have a non-reflective finish and neutral gray color	Less than significant
APM AES-4	**Security Fence.** Security fencing at the substation will be galvanized chain link fence with a non-reflective finish.	Less than significant
APM AGR-1	**Landowner Coordination.** PG&E will coordinate with the landowner in advance of construction activities to minimize impacts on agricultural operations.	Less than significant
APM AIR-1	**Dust Control During Construction.** • Water or cover all exposed surfaces with the potential of dust-generating with coarse rock to reduce the potential for airborne dust from leaving the site; • Limit the simultaneous occurrence of more than two ground disturbing construction phases on the same area at any one time. Phase activities to reduce the amount of disturbed surfaces at any one time; • Cover all haul trucks entering/leaving the site and trim their loads as necessary; • Use wet power vacuum street sweepers to sweep all paved access roads, parking areas, staging areas, and public roads adjacent to Project sites on a daily basis (at minimum) during construction. The use of dry power sweeping is prohibited; • Wash off all trucks and equipment, including their tires, prior to leaving Project sites; • Apply gravel or non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at Project sites; • Water and/or cover soil stockpiles daily; • Limit all vehicle speeds to fifteen (15) miles per hour (mph) or less on unpaved areas; • Implement dust monitoring in compliance with the standards of the local air district; and • Halt construction during any periods when wind speeds are in excess of 50 mph.	Less than significant
APM AIR-2	**Construction Equipment Engines**. Equipment used during construction will abide by the CARB requirement that only Tier 4 Final or cleaner engines may be added to large and medium fleets starting January 1, 2024.	Less than significant
APM BIO-1	**Work area minimization**. The number of access routes, staging areas, and total area of the work sites will be kept to the minimum necessary.	Less than significant
APM BIO-2	**Erosion and sediment control measures**. A Stormwater Pollution Prevention Plan (SWPPP) will be implemented to ensure effective erosion and sediment control measures will be in place at all times during construction.	Less than significant
APM BIO-3	**Weed management.** To prevent the spread of noxious weeds, only equipment which has been washed and is free of caked on mud, dirt, and other debris, which could house plant seeds, will be allowed in the Project area.	Less than significant

TABLE ES-1
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT-PROPOSED MEASURES AND MITIGATION MEASURES

Resource Area / Measure Number	Applicant-Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Significance with Measures Implemented
APM BIO-4	**Avoidance of impacts to wildlife and natural habitats**. All work will be done in a manner that minimizes disturbance to wildlife and habitat.	Less than significant
APM BIO-5	**Litter and trash management**. All food waste and associated containers will be disposed of in closed lid containers.	Less than significant
APM BIO-6	**Maintenance and refueling.** No vehicle maintenance or refueling will occur within 100 feet of any agricultural or roadside ditches.	Less than significant
APM BIO-7	**Spill prevention and cleanup**. Proper spill prevention and cleanup equipment will be readily available.	Less than significant
APM BIO-8	**Route limitations.** Vehicles will remain on designated access roads and within designated worksites.	Less than significant
APM BIO-9	**Pets and firearms.** No pets or firearms are permitted within the Project area.	Less than significant
APM BIO-10	**Vehicle speed limits.** Construction crews will abide by all county road speed limits.	Less than significant
APM BIO-11	**Backfilling**. Prior to backfilling or placement of structures, all excavation sites (e.g., holes excavated for pole butts, trenches, etc.) will be inspected to ensure no small vertebrates have been entrapped. All excavations with a potential for entrapment of wildlife will be backfilled or fully covered at the end of the workday. Alternatively, holes or trenches will include one or more escape ramps constructed of earth fill or wooden planks no less than 10 inches wide and reaching to bottom of trench at the close of each working day.	Less than significant
APM BIO-12	**Nesting Bird Impact Avoidance and Protection.** If construction work is scheduled during the nesting season (1 February through 31 August), nest detection surveys will correspond with a standard buffer for individual species in accordance with the species-specific buffers set forth in Appendix I of the PEA and will occur within 15 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 15 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 I 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 I. The acclimation of nesting pairs 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.	Less than significant
APM BIO-13	**Avoidance and minimization of potential impacts on Swainson's hawk and white-tailed kite**. If construction activities are scheduled to occur during the nesting season (1 February to 31 August), a preconstruction survey for nesting Swainson's hawk and/or white-tailed kite will be conducted within 0.5 mile of the Project area by a qualified biologist. If active nests are found, a qualified biologist will designate an appropriate buffer between construction activities and the nest to avoid disturbance to the nesting. A qualified biologist will monitor the active nest(s) to confirm that activities associated with the Project are not disturbing or disrupting nesting or breeding activities and adjust the buffer distance as necessary. Work within an established buffer will not proceed until the nestlings have fledged or the nest becomes inactive.	Less than significant

TABLE ES-1
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT-PROPOSED MEASURES AND MITIGATION MEASURES

Resource Area / Measure Number	Applicant-Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Significance with Measures Implemented
APM BIO-14	**Biological Resources Worker Environmental Awareness Program (WEAP**). The Applicant shall develop a WEAP. Prior to the start of construction, all construction crew members and contractors shall be required to attend the WEAP training presented by a qualified biologist. All construction crew members and contractors who attend the training shall sign a form indicating that they attended the training and understood the information. Follow-up training shall be conducted as needed; new workers shall attend WEAP training prior to beginning at the work site. The WEAP training shall include a review of the special status species and other sensitive resources (e.g., nesting birds) that could exist in the Project area, the locations where sensitive biological resources do or may occur, the limits of the work area, applicable laws and regulations, penalties for non-compliance, and any APMs to be implemented for avoidance of these sensitive resources. Additionally, personnel shall be trained for situations where it is necessary to contact a qualified biologist (e.g., should any sensitive biological resources such as an active nest be found during construction). If sensitive resources are found, the qualified biologist shall provide guidelines for the personnel to avoid impacts on them. All WEAP participants shall receive a brochure that outlines all this information including contact information for the appropriate environmental personnel.	Less than significant
APM BIO-15	**Protection of Drainage Features (MRHCP Wetland-2).** A buffer of 50 feet will be established around any drainage features, including ditches. If maintaining the buffer is not practicable because the work sites are within any part of the buffered area, the field crew will implement other measures as prescribed by the biologist to minimize impacts to potential habitat. These measures may include flagging access, requiring foot access, restricting work until the dry season, or requiring a biological monitor during the activity. Activities must maintain the hydrology necessary to support the drainage features (inclusive of downstream). If water is present, the area will be dewatered prior to start of work within the ditch. If any temporary dam or other artificial obstruction is constructed within ditches where work is to occur, the temporary dam or other artificial obstruction will only be built from clean materials such as sandbags, gravel bags, water dams, or clean/washed gravel that will cause little or no siltation. Flow will be pumped around the work site with the use of hoses. All temporarily affected areas within the channels of ditches where work will occur will be restored to pre-construction contours upon completion of construction activities.	Less than significant
APM BIO-16	**Multiple Region Habitat Conservation Plan (MRHCP) Measures.** FP-01 Conduct annual training on habitat conservation plan requirements for employees and contractors performing covered activities in the Plan Area that are applicable to their job duties and work. Tailboard and site-specific training will also be conducted prior to commencing work. FP-02 Park vehicles and equipment on pavement, existing roads, or other disturbed or designated areas (barren, gravel, compacted dirt). FP-03 Use existing access and ROW roads. Minimize the development of new access and ROW roads, including clearing and blading for temporary vehicle access in areas of natural vegetation. FP-04 Route off-road access paths and site work sites to minimize impacts on plants, shrubs, and trees, small mammal burrows, and unique natural features (e.g., rock outcrops). FP-05 Notify conservation landowners at least 2 business days prior to conducting covered activities on protected lands (state- or federally owned wildlife areas, ecological reserves, or conservation areas); more notice will be provided if practicable or if required by other permits. If the work is an emergency, as defined in PG&E's Utility Procedure ENV-8003P-01, PG&E will notify the conservation landowner within 48 hours after initiating emergency work. Although this notification is intended only to inform conservation landowner, PG&E will attempt to work with the conservation landowner to address landowner concerns. FP-06 Minimize potential for covered species to become trapped, injured, or killed in pipes, culverts, or under materials or equipment. Inspect pipes and culverts wide enough to be entered by a covered species that could inhabit the area where pipes are stored for wildlife species prior to moving pipes and culverts. Contact a biologist if a covered species or other federally listed species is suspected or discovered.	Less than significant

TABLE ES-1
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT-PROPOSED MEASURES AND MITIGATION MEASURES

Resource Area / Measure Number	Applicant-Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Significance with Measures Implemented
	FP-07 Vehicle speeds on unpaved roads will not exceed 15 miles per hour. FP-08 Prohibit trash dumping, firearms, open fires (such as barbecues), hunting, and pets (except for safety in remote locations) at work sites. FP-09 In designated State Responsibility Areas, equip all motorized equipment with federally or state-approved spark arrestors. Ensure a backpack pump filled with water and a shovel and fire-resistant mats and/or windscreens is onsite during welding. During fire "red flag" conditions as determined by the California Department of Forestry and Fire Protection, prohibit welding. Each fuel truck will carry a large fire extinguisher with a minimum rating of 40 B:C. Clear parking and storage areas of all flammable materials. FP-10 Minimize the covered activity footprint and minimize the amount of time spent at a work site to reduce the potential for take of species. FP-11 Utilize standard erosion and sediment control BMPs (pursuant to the most current version of PG&E's *Stormwater Field Manual for Construction Best Management Practices*) to prevent construction site runoff into waterways. FP-12 Stockpile soil within established work site boundaries and locate stockpiles so as not to enter water bodies, stormwater inlets, other standing bodies of water. Cover stockpiled soil prior to precipitation events. FP-13 Fit open trenches or steep-walled holes with escape ramps of plywood boards or sloped earthen ramps at each end if left open overnight. Field crews will search open trenches or steep-walled holes every morning prior to initiating daily activities to ensure wildlife is not trapped. Field crews will not handle covered species. If any covered wildlife species is found, work will stop and a biologist will be notified. A biologist with appropriate take permits will relocate the species to adjacent habitat or the species will be allowed to naturally disperse, as determined by a biologist. FP-14 If the covered activity disturbs 0.1 acre or more of habitat for a covered species in grasslands, the field crew will revegetate the area with a commercial "weed free" seed mix. FP-15 Prohibit vehicular and equipment refueling within 250 feet of the edge of wetlands, streams, or waterways. If refueling must be conducted closer to wetlands, construct a secondary containment area subject to review by an environmental field specialist and/or biologist. Maintain spill prevention and cleanup equipment in refueling areas. FP-16 Maintain a buffer of 250 feet from the edge of wetlands, ponds, or riparian areas. If maintaining the buffer is not practicable because the covered activity footprint is within the buffered area, other measures as prescribed by the biologist or the HCP administrator to minimize impacts such as flagging access routes or paths, requiring foot access, restricting work until the dry season, or requiring a biological monitor during the activity. FP-17 Directionally fall trees away from an exclusion zone if an exclusion zone has been defined. If this is not practicable, remove the tree in sections. Avoid damage to adjacent trees to the extent practicable. Avoid removal of snags and conifers with basal hollows, crown deformities, and/or limbs more than 6 inches in diameter. FP-18 Nests with eggs and/or chicks will be avoided: contact a biologist or the Avian Protection Program Manager for further guidance. Work will be stopped until the crew can obtain clarification from a biologist or the Avian Protection Program Manager on how to proceed. FP-19 Inspect and maintain exclusion fencing installed to exclude species from work areas.	
APM CUL-1	**Inadvertent Discoveries.** If cultural resources are encountered during construction activity, PG&E and/or its contractors shall halt work in the immediate vicinity of the find. The find shall be evaluated by a qualified archaeologist before construction activity may resume. If the qualified archaeologist determines that the find may be significant and if avoidance of the find is determined to be infeasible, the archaeologist shall notify the lead agencies and shall follow approved procedures established for the treatment and mitigation of unanticipated discoveries in consultation with the lead agency. PG&E shall be responsible for the resultant mitigation costs.	Less than significant

TABLE ES-1
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT-PROPOSED MEASURES AND MITIGATION MEASURES

Resource Area / Measure Number	Applicant-Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Significance with Measures Implemented
APM CUL-2	**Human Remains.** If human remains are discovered during construction or maintenance activities, all work shall be diverted from the area of the discovery and the CPUC shall be informed immediately. The Applicant shall contact the County Coroner to determine whether or not the remains are Native American. If the remains are determined to be Native American, the Coroner will contact the NAHC. The NAHC will then identify the person or persons it believes to be the most likely descendant of the deceased Native American, who in turn would make recommendations for the appropriate means of treating the human remains and any associated funerary objects.	Less than significant
APM CUL-3	**Survey New or Modified Work Areas.** PG&E will perform cultural resources surveys prior to construction for any Project areas not yet surveyed (e.g., new or modified staging areas, or other work areas). Resources discovered during the surveys would be subject to CUL-1.	Less than significant
APM CUL-4	**Worker Education Training.** The following procedures will be implemented prior to commencement of any Project-related construction activities in order to ensure that appropriate steps/actions are taken in the event that there is an inadvertent discovery of a tribal or cultural resource: • All PG&E, contractor, and subcontractor Project personnel will receive training regarding: – appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental laws and regulations; – the potential for exposing subsurface cultural resources; – the potential for uncovering Tribal Cultural Resources; – how to recognize possible buried cultural resources; and, – actions to be taken in the event there is an inadvertent discovery as outlined in CUL-1 and CUL-2.	Less than significant
APM GS-1	**Minimization of Construction above Liquefiable Soils or in Soft or Loose Soils**. PG&E will conduct geotechnical investigations prior to construction to identify liquefiable, soft, or loose soils, and implement design and civil engineering standards in accordance with the CBC and the CPUC's General Order 95.	Less than significant
APM GS-2	**Unanticipated Discovery of Paleontological Resources.** If paleontological resources are discovered during construction activities, the following procedures will be followed: • Work will be stopped immediately within 100 feet of the discovery. • The designated Project inspector, PG&E Cultural Resource Specialist (CRS), and the CPUC will be contacted immediately. • The site will be protected from further impacts, including looting, erosion, or other human or natural damage. • PG&E's CRS will arrange for a Principal Paleontologist to evaluate the discovery. If the discovery is determined to be significant, PG&E will consult with the CPUC and implement appropriate measures to protect and document the paleontological resource. Examples of such measures include establishing recovery standards, preparing specimens for identification and preservation, and securing a curation agreement from the appropriate agency. • Work will not resume within 100 feet of the find until approval by the paleontologist, PG&E CRS, and the CPUC.	Less than significant
APM GHG-1	**Greenhouse Gas Emissions Reduction During Construction.** • If suitable park-and-ride facilities are available near construction workers' residences, they shall be encouraged to carpool to the job site; • Maintain on-road and off-road vehicle tire pressures to manufacturer specifications. Tires will be checked and re-inflated at regular intervals; • Recycle demolition debris for reuse to the extent feasible; • Use line power instead of diesel generators at all construction sites where line power is available; and • Maintain construction equipment in properly working condition per PG&E standards.	Less than significant

TABLE ES-1
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT-PROPOSED MEASURES AND MITIGATION MEASURES

Resource Area / Measure Number	Applicant-Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Significance with Measures Implemented
APM GHG-2	**Minimize GHG Emissions.** • Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time will depend on the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warm-up times following start-up that limit their availability for use following start-up. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles may require more 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. Construction supervisors will include briefings to crews on vehicle use as part of pre-construction conferences; these briefings will include discussion of a "common sense" approach to vehicle use. • 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 50 hp or larger and manufactured in the year 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
APM GHG-3	**Minimize SF6 Emissions.** • Incorporate Plainfield Substation's new SF_6 circuit breakers into PG&E's system-wide SF_6 emission reduction program. Since 1998, PG&E has implemented a programmatic plan to inventory, track, and recycle SF_6 inputs, and inventory and monitor system-wide SF_6 leakage rates to facilitate timely replacement of leaking breakers. PG&E has also improved its leak detection procedures and increased awareness of SF_6 issues within the company. X-ray technology is now used to inspect internal circuit breaker components to eliminate dismantling of breakers, reducing SF_6 handling and accidental releases. As an active member of the EPA's SF_6 Emission Reduction Partnership for Electrical Power Systems, PG&E has remained focused on reducing SF_6 emissions from its transmission and distribution operations. • Require that the new SF_6 breakers at Plainfield Substation have a manufacturer's guaranteed maximum leakage rate of 0.5 percent per year or less for SF_6. • Maintain substation breakers in accordance with PG&E's maintenance standards. • Comply with CARB's Early Action Measures as these policies become effective.	Less than significant
APM HAZ-1	**Emergency Spill Response Equipment and Training.** Emergency spill response and cleanup kits will be available on site as well as at the Davis PG&E Service Yard Headquarters, and readily available for the cleanup of an accidental spill. Construction crews will be trained in safe handling and cleanup responsibilities prior to the initiation of construction.	Less than significant
APM HAZ-2	**Shock Hazard.** All authorized personnel working on site will be trained according to PG&E standards during either construction or maintenance and operation. To minimize potential exposure of the public to electric shock hazards, an 8-foot-tall chain link fence topped with 1 foot of barbed wire will extend around the perimeter of the expanded substation, thus restricting site access. Warning signs will be posted to alert people of potential electrical hazards. All electric power lines will be designed in accordance with CPUC General Order 95 Guidelines for safe ground clearances established to protect the public from electric shock	Less than significant
APM HAZ-3	**Update Spill Prevention, Control, and Countermeasure (SPCC) Plan and Hazardous Materials Business Plan (HMBP).** PG&E will update the existing SPCC Plan and HMBP for Plainfield Substation to include all new equipment and on-site hazardous materials associated with the substation expansion, and to address containment from an accidental spill. The substation will be equipped with a retention basin that meets SPCC Guidelines (40 Code of Federal Regulations 112). The retention basin will be sufficiently sized to	Less than significant

TABLE ES-1
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT-PROPOSED MEASURES AND MITIGATION MEASURES

Resource Area / Measure Number	Applicant-Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Significance with Measures Implemented
	accommodate stormwater runoff from the substation yard. The substation will also be equipped with lead-acid batteries to provide backup power for monitoring, alarm, protective relaying, instrumentation and control, and emergency lighting during power outages. Containment will be constructed around and under the battery racks, and the SPCC will address containment from a battery leak.	
APM HAZ-4	**Soil Testing and Disposal.** In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are removed during site grading activities or excavation activities, the excavated soil will be tested, and if contaminated above hazardous waste levels, 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
APM HYDRO-1	**Stormwater Pollution Prevention Plan.** Because the Project involves more than an acre of soil disturbance, PG&E will prepare and implement a SWPPP to help stabilize disturbed areas and reduce erosion and sedimentation. A monitoring program will also be established to confirm that the prescribed BMPs are followed during Project construction. A qualified SWPPP practitioner will oversee the implementation of the SWPPP and associated BMPs. The following measures are generally drawn from the permit and will be included in the SWPPP prepared for the construction of the Project: • All BMPs will be on site and ready for installation before the start of construction activities; • BMPs will be developed to prevent the acceleration of natural erosion and sedimentation rates, such as the use of silt fence and wattles, and to limit track out of mud and sediment into roadways during construction; and • Prior to conducting clearing activities during the wet season and before the onset of winter rains or any anticipated storm events, erosion-control measures will be installed. Temporary measures such as silt fences or wattles, which are intended to minimize sediment transport from temporarily disturbed areas, will remain in place until disturbed areas have stabilized.	Less than significant
APM TRANS-1	**Traffic Management.** PG&E will obtain necessary transportation and encroachment permits from Caltrans and the local jurisdiction, as required, including those related to the transport of oversized loads and certain materials, and will comply with permit requirements designed to prevent excessive congestion or traffic hazards during construction. Construction activities will follow best management practices and local jurisdictional encroachment permit requirements, which may include traffic controls such as signs, cones, and flaggers. At least 24 hours prior to implementing a lane or road closure of CR 27, PG&E will coordinate with applicable emergency service providers in the Project vicinity. PG&E will provide information regarding the anticipated date, time, and duration of the lane or road closure, and a contact number.	Less than significant
APM TCR-1	**Undiscovered Potential Tribal Cultural Resources.** The following procedure shall be employed (after stopping work and following the procedure for determining eligibility in APM CUL-1) 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: • The PG&E Cultural Resource Specialist 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. • The PG&E Cultural Resource Specialist 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.	Less than significant

TABLE ES-1
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT-PROPOSED MEASURES AND MITIGATION MEASURES

Resource Area / Measure Number	Applicant-Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Significance with Measures Implemented
APM FIRE-1	**Construction Fire Prevention Plan.** PG&E will implement the following fire prevention practices at active construction sites: • During Red Flag Warning events, as issued daily by the National Weather Service, all construction activities will cease, with an exception for transmission line testing, repairs, unfinished work, or other specific activities which may be allowed if the facility/equipment poses a greater fire risk if left in its current state. • All construction and maintenance crews and inspectors will be provided with radio and cellular telephone access that is operational in all work areas and access routes to allow for immediate reporting of fires. Communication pathways and equipment will be tested and confirmed operational each day prior to initiating construction activities at each work site. All fires will be reported to the fire agencies with jurisdiction in the area immediately upon discovery of the ignition. • Construction and maintenance personnel will be trained in fire-safe actions, initial attack firefighting, and fire reporting. Construction personnel will be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats. • All construction and maintenance personnel will carry a laminated card and be provided a hard hat sticker that lists pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on laminated contact cards and hard hat stickers will be updated as needed and redistributed to all construction personnel prior to the day the information change goes into effect. • Construction and maintenance personnel will have fire suppression equipment on all construction vehicles and will be required to park vehicles away from dry vegetation. PG&E will coordinate with applicable local fire departments prior to construction activities to determine the appropriate amounts of fire equipment to be carried on vehicles and, should a fire occur, to coordinate fire suppression activities. • Water tanks and/or water trucks will be sited or available at active Project sites for fire protection during construction.	Less than significant
CEQA Mitigation Measures		
Biological Resources	**Mitigation Measure BIO-1: Wildlife-Friendly Design Features.** The design of new overhead transmission and communications lines and structures will follow the most recent Avian Power Line Interaction Committee guidance (currently APLIC 2006) at the time of Project approval to reduce the potential for avian injury and mortality from collisions and electrocution.	Less than significant
Utilities and Service Systems	**Mitigation Measure UT-1: Solid Waste Diversion Plan.** The Applicant shall prepare and submit a diversion plan to the CPUC and Yolo County for review and approval before the start of construction. The solid waste diversion plan will outline how the Applicant will sort, measure, and record the disposal of solid waste to ensure that 50 percent of inert materials will be recycled, reused, or otherwise diverted from the landfill. The plan will detail reporting requirements to the CPUC and Yolo County. Measures in the plan will include but not be limited to the following: • Provision of space and/or bins for appropriate storage of recyclable materials on-site. • Establishment of a recyclable materials pick-up area. • Development of a recordation system that details and quantifies the amount of solid waste generated during construction, solid waste recycled, and solid waste delivered to the solid waste disposal facility. • If it is determined, through consultation with Yolo County, that PG&E's proposed construction activities are exempt or otherwise not subject to the County's solid waste diversion requirements, documentation of the consultation shall be provided to CPUC in lieu of the mitigation measure's solid waste diversion plan and reporting requirements.	Less than significant

NOTES: APM = Applicant-Proposed Measure; BMP = best management practice; CPUC = California Public Utilities Commission; CRS = Cultural Resource Specialist; HMBP = Hazardous Materials Business Plan; IS/MND = initial study/mitigated negative declaration; MRHCP = Multiple Region Habitat Conservation Plan; PEA = Proponent's Environmental Assessment; PG&E = Pacific Gas and Electric Company; SF_6 = sulfur hexafluoride; SPCCP = Spill Prevention, Control, and Countermeasure Plan; SWPPP = stormwater pollution prevention plan; WEAP = Worker Environmental Awareness Program

SOURCE: Data provided by Pacific Gas and Electric Company in 2024.

ES.4 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, the Applicant would obtain all applicable permits for the Project from federal, state, and local agencies. **Table ES-2** provides the potential permits and approvals that may be required for Project construction.

TABLE ES-2
ANTICIPATED PERMIT, APPROVAL, AND CONSULTATION REQUIREMENTS

Permit/Approval/Consultation	Agency	Jurisdiction/Purpose
~~**Federal Agencies**~~		
~~Clean Water Act Section 404~~	~~U.S. Army Corps of Engineers~~	~~Jurisdiction over waters of the United States associated with the replacement of the culverts along CR 27, which flow into a direct tributary to Willow Slough.~~
State Agencies		
Permit to Construct (General Order 131-D)	CPUC	Construction, modification, or alteration of substations and power line facilities.
Transportation Permit for Oversize/Overweight Vehicles	California Department of Transportation (Caltrans)	Operating or moving a vehicle or combination of vehicles or equipment exceeding California Vehicle Code limitations on the State Highway System.
National Pollutant Discharge Elimination System Stormwater Permit (ministerial)	State Water Resources Control Board	Submittal of a Notice of Intent for construction activities disturbing 1 acre or more of soil to comply with the terms of the general permit.
Local/Regional Agencies		
Grading Permit (ministerial)	Yolo County	Grading activities: Grading of substation site, construction of berm, and installation of stormwater retention pond.
Encroachment Permit (ministerial)	Yolo County	For construction activities completed within CR rights-of-way.
Porter-Cologne Water Quality Control Act	Regional Water Quality Control Board	Discharge of fill to waters of the state associated with installation of the three culverts along CR 27.

NOTES: CPUC = California Public Utilities Commission; CR = County Road
SOURCE: PG&E 2024b

On the basis of this initial study:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

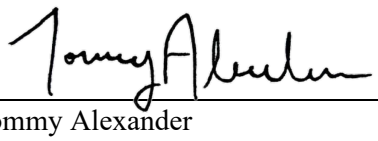
☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ 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 Project WOULD NOT HAVE a significant effect on the environment with the incorporation of the Applicant-proposed measures and mitigation measures (attached). The draft IS/MND is available for review at the CPUC Office, located at 505 Van Ness Avenue, San Francisco, California 94102.



4/1/2025

Tommy Alexander
Project Manager
California Public Utilities Commission

Date

ES.5 References

PG&E (Pacific Gas and Electric Company). 2024a. *Proponent's Environmental Assessment Application of Pacific Gas and Electric Company (U39E) for Permit to Construct the Plainfield Substation Upgrade Project*. June 2004.

PG&E (Pacific Gas and Electric Company). 2024b. *Pacific Gas and Electric Company Plainfield Substation Upgrade Project Proponent's Environmental Assessment ("PEA")*. June 2024.

CHAPTER 1
Introduction

Pacific Gas and Electric Company (PG&E or Applicant) submitted an application (A-24-06-008) to the California Public Utilities Commission (CPUC) on June 18, 2024 (PG&E 2024a) for a permit to construct (PTC) for the Plainfield Substation Upgrade Project (Project). On July 17, 2024, the CPUC Energy Division determined the PTC application was complete.

The Project is located in unincorporated Yolo County, California, midway between the cities of Woodland and Davis, approximately 1.5 miles west of State Route 113. The existing Plainfield Substation occupies approximately 0.9 acre (200 feet by 200 feet) adjacent to the south side of County Road 27, west of County Road 99, and east of County Road 98. The substation expansion area, located directly east and south of the existing substation boundary, is currently used for agricultural purposes. This Project would expand the substation 415 feet east and 235 feet south of the existing fence line, adding approximately 5.2 acres to the substation footprint.

The Project includes the expansion and upgrade of the Plainfield Substation by adding two 5-megavolt-ampere reactive power shunt capacitor banks and related equipment that would boost the voltage of the 60-kilovolt lines to acceptable levels. The Project includes the following components:

- Upgrades to the existing 60-kilovolt bus.
- The installation of two new shunt capacitor[1] banks.
- Modifications to the existing Spill Prevention, Control, and Countermeasure containment system.
- The installation of a stormwater retention pond.
- The installation of a new station battery enclosure and a new, larger modular protection automation and control enclosure.
- The replacement and installation of tubular steel poles and all-aluminum conductor power lines.

New fencing, lighting, and access road improvements would also be installed. Further detail is provided in Chapter 2, *Project Description*.

The Project was identified by the California Independent System Operator Corporation as necessary to ensure the reliability of the corporation-controlled grid. The CPUC will use the information in this California Environmental Quality Act (CEQA) document to inform its decision whether or not to approve the PG&E application to construct and operate the Project.

[1] A shunt capacitor is a capacitor connected in parallel to a load or supply point, to reduce line losses and improve voltage regulation in power systems.

1.1 CEQA Process

Pursuant to the requirements of CEQA, the CEQA Guidelines, and CPUC General Order 131-D, the CPUC prepared an initial study and mitigated negative declaration (IS/MND) to evaluate the potential environmental impacts of the Project and identify mitigation measures to reduce potentially significant impacts.

As stated in Public Resources Code Section 21064.5, an MND may be prepared when:

> *[T]he initial study (IS) 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.*

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 Project's potential environmental effects, evaluates the level of significance of each impact under CEQA, and identifies the mitigation measures agreed to by PG&E that avoid or reduce the impacts of the Project to less-than-significant levels. Specifics of the Project described and analyzed in the IS/MND are based on the PTC application, the Proponent's Environmental Assessment (PEA) (PG&E 2024a), and PG&E's responses to CPUC data requests (PG&E 2024b, 2024c). This information is intended to describe construction, operation, and maintenance requirements and activities to inform an analysis of the Project's environmental effects, using the questions from the checklist in CEQA Guidelines Appendix G.

1.2 Public Review Process

On April 9, 2025, the CPUC filed a notice of completion with the Governor's Office of Land Use and Climate Innovation, State Clearinghouse; published a notice of intent to adopt an MND; and released this Draft IS/MND for a 30-day public and agency review period. As outlined in **Appendix A**, the Draft IS/MND was distributed to federal, state, and local agency representatives, and the notice of intent was distributed to property owners within 1,000 feet of the Project and to other interested organizations and individuals. Legal notices will appear in the *Woodland Daily Democrat* and the *Davis Enterprise* on April 9, 2025, announcing the availability of the Draft IS/MND for public review in compliance with CEQA.

On April 9, 2025, 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 website, https://ia.cpuc.ca.gov/environment/info/esa/plainfield/index.html, to provide information about the Project and the CEQA process, including the IS/MND, estimated schedule, public comment period, and other Project details. Additionally, a Project voicemail phone number, (510) 463-6731, and email address, Plainfield@esassoc.com, are available to enable the public to send questions to the CPUC CEQA team and comment on the Draft IS/MND.

The CPUC is accepting input on this Draft IS/MND from stakeholder agencies, the public, and other interested parties during a formal review period. In accordance with Section 15105(b) of the CEQA Guidelines, the public review and comment period begins on April 9, 2025, and ends at 5:00 p.m. on May 9, 2025. No in-person or virtual public meeting or workshop is planned for the Project.

The public may submit written comments regarding the Project and the adequacy of the Draft IS/MND. Written comments on the Draft IS/MND must be postmarked or received by email no later than May 9, 2025, at 5:00 p.m. Commenters should be sure to include their names, addresses, and telephone numbers in all correspondence. Copies of all written comments on the Draft IS/MND received during this comment period will be included in the Final IS/MND and will therefore become part of the public record.

Written comments on the Draft IS/MND should be sent to:

California Public Utilities Commission
Attn.: Tommy Alexander
Energy Division –CEQA & Energy Permitting
505 Van Ness Avenue
San Francisco, CA 94102
Plainfield@esassoc.com

Copies of the Draft IS/MND will be available for public review on the Project website: https://ia.cpuc.ca.gov/environment/info/esa/plainfield/index.html. This website will be used to post all public documents during the environmental review process. Printed or electronic (e.g., flash drive) copies of the Draft IS/MND may be requested by email at Plainfield@esassoc.com.

1.3 California Public Utilities Commission 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 because 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

PG&E (Pacific Gas and Electric Company). 2024a. *Proponent's Environmental Assessment Application of Pacific Gas and Electric Company (U39E) for Permit to Construct the Plainfield Substation Upgrade Project*. June 2004.

PG&E (Pacific Gas and Electric Company). 2024b. Data Request 1: Plainfield Substation Upgrade Project CEQA Evaluation.

PG&E (Pacific Gas and Electric Company). 2024c. PG&E Response to Data Request 2.

CHAPTER 2
Project Description

2.1 Introduction

Pacific Gas and Electric Company (PG&E or Applicant) proposes the Plainfield Substation Upgrade Project (Project) to expand the existing Plainfield Substation to address low-voltage concerns with the existing 60-kilovolt (kV) system. The substation was constructed in 1960 to support an expanding agricultural and residential electrical load on the west side of Yolo County, California. It serves approximately 5,800 residences, including agricultural operations.

The existing Plainfield Substation is located adjacent to the south side of County Road (CR) 27 in unincorporated Yolo County, midway between the cities of Woodland and Davis. The substation occupies approximately 0.9 acre. The Applicant would purchase a portion of an adjacent parcel to expand the substation approximately 415 feet east and 235 feet south of the existing fence line, adding approximately 5.2 acres to the substation footprint. After the proposed expansion, the Plainfield Substation would occupy approximately 6.1 acres.

The substation upgrade would consist of installing two new 5-megavolt-ampere reactive power (MVAR) shunt capacitor banks and related equipment that would boost the voltage of the 60 kV lines to acceptable levels. The Project would include the following components:

- Upgrades to the existing 60 kV bus.
- The installation of two new shunt capacitor banks.
- Modifications to the existing Spill Prevention, Control, and Countermeasure (SPCC) containment system.
- The installation of a stormwater retention pond.
- The installation of a new station battery enclosure and a new, larger Modular Protection Automation and Control (MPAC) enclosure.
- The replacement and installation of tubular steel poles (TSPs) and all-aluminum conductor power lines.

New fencing, lighting, and access road improvements would also be installed.

PG&E submitted an application (A-24-06-008) to the California Public Utilities Commission (CPUC) on June 18, 2024 (PG&E 2024a) for a permit to construct the Plainfield Substation Upgrade Project. The application includes the Proponent's Environmental Assessment prepared pursuant to Rule 2.4 of the CPUC's Rules of Practice and Procedure (PG&E 2024b). If the CPUC approves issuance of the permit to construct, PG&E would expand the existing Plainfield Substation.

The Project was identified by the California Independent System Operator Corporation (CAISO) to ensure the reliability of the CAISO-controlled grid. The CPUC will use the information in this California Environmental Quality Act (CEQA) document to inform its decision on whether to approve the PG&E application to construct and operate the expansion to the existing Plainfield Substation.

2.1.1 Project Objectives

The Project proposes to address CAISO-identified reliability issues as described in Section 2.3.1, *Existing System Reliability*, to correct the low voltage issues and overload conditions at the Plainfield Substation 60 kV bus by installing two new 5 MVAR shunt capacitor banks. The Applicant has identified the following objectives for the Project:

(1) Increase service reliability to customers, including to agricultural operations, in unincorporated Yolo County and the cities of Woodland and Davis, by correcting low-voltage issues and alleviating overload conditions due to growing load in the existing system.

(2) Meet performance requirements established by the North American Electric Reliability Corporation that the electric system would operate reliably during normal system conditions.

(3) Design and build the CAISO-approved project in a safe and cost-effective manner while minimizing environmental impacts.

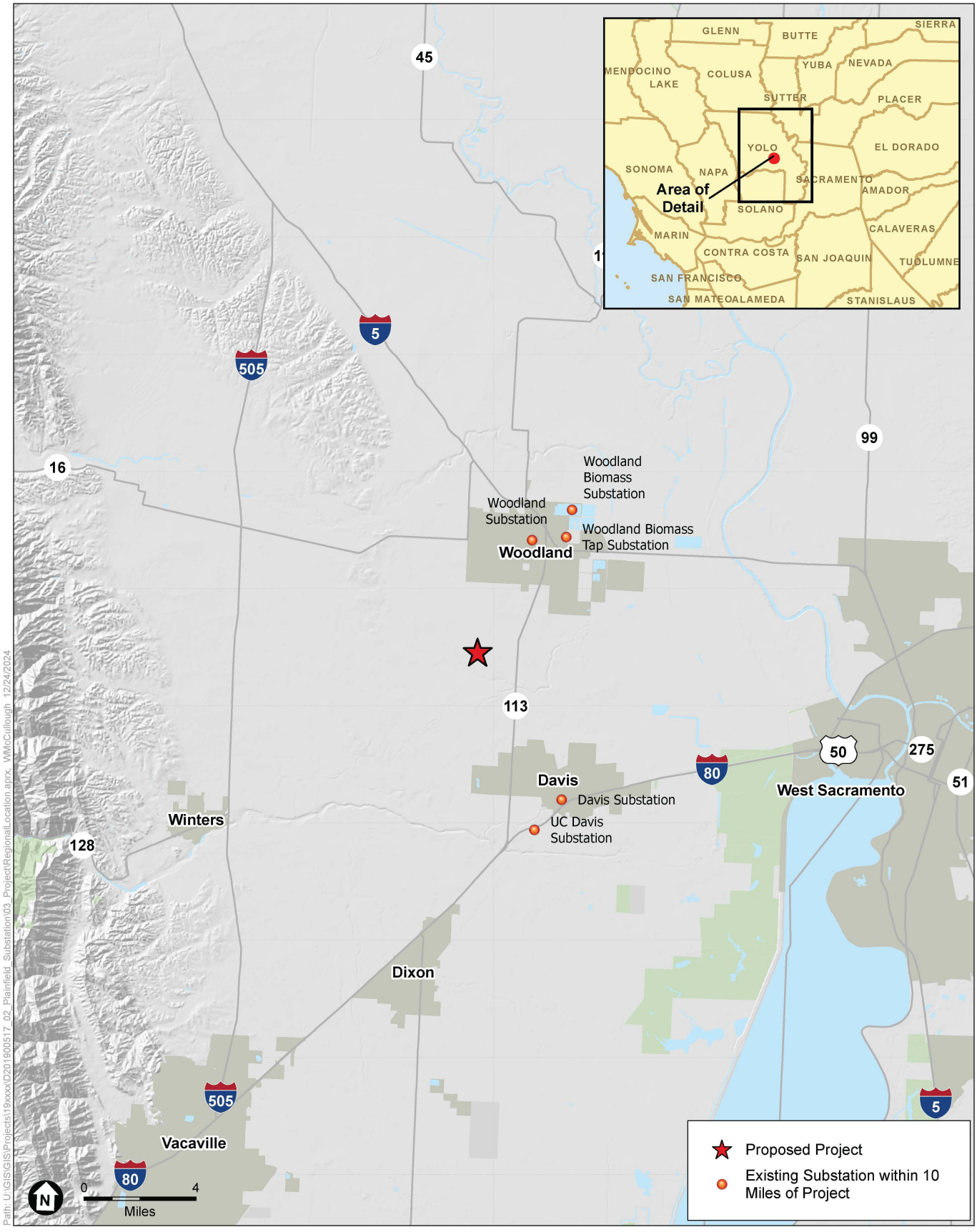
2.2 Project Location

The existing Plainfield Substation is on a 0.9-acre parcel, Assessor's Parcel Number 041-005-099, in unincorporated Yolo County, approximately 2.5 miles south of the city of Woodland and 3.5 miles north of the city of Davis. The parcel is approximately 1.5 miles west of State Route 113 and is adjacent to the south side of CR 27, west of CR 99, and east of CR 98. See **Figure 2-1**, ***Project Location***, for the Project's location relative to the region and nearby PG&E substations.

The Applicant would construct the proposed expanded Plainfield Substation on approximately 5.2 acres of the adjacent, privately owned, 320.8-acre parcel (Assessor's Parcel Number 041-050-003). The adjacent parcels to the south, west, and east of the existing Plainfield Substation are currently used for agricultural uses, as is the land on the north side of CR 27. A Swainson's hawk conservation easement is located on the agricultural land west of the existing Plainfield Substation.

2.3 Existing System

The existing Plainfield Substation serves approximately 5,800 residences and businesses, including commercial agricultural operations, in unincorporated Yolo County and the cities of Woodland and Davis. It is a critical component of a regional network of 60 kV substations within PG&E's Sacramento Planning Area. The network includes the Winters and Plainfield substations, both of which receive power from the Vaca-Dixon Substation (see **Figure 2-2**, ***Existing System***). The Plainfield Substation is connected to the East Nicolaus Substation, which is served by the Rio Oso Substation to the northeast. This interconnected system allows for a backup power supply to the Plainfield Substation when primary power from the Vaca-Dixon Substation is unavailable. The Plainfield Substation is approximately 35 miles northeast from its primary power source, the Vaca-Dixon Substation, and 25 miles southwest from its backup power source, the East Nicolaus Substation.

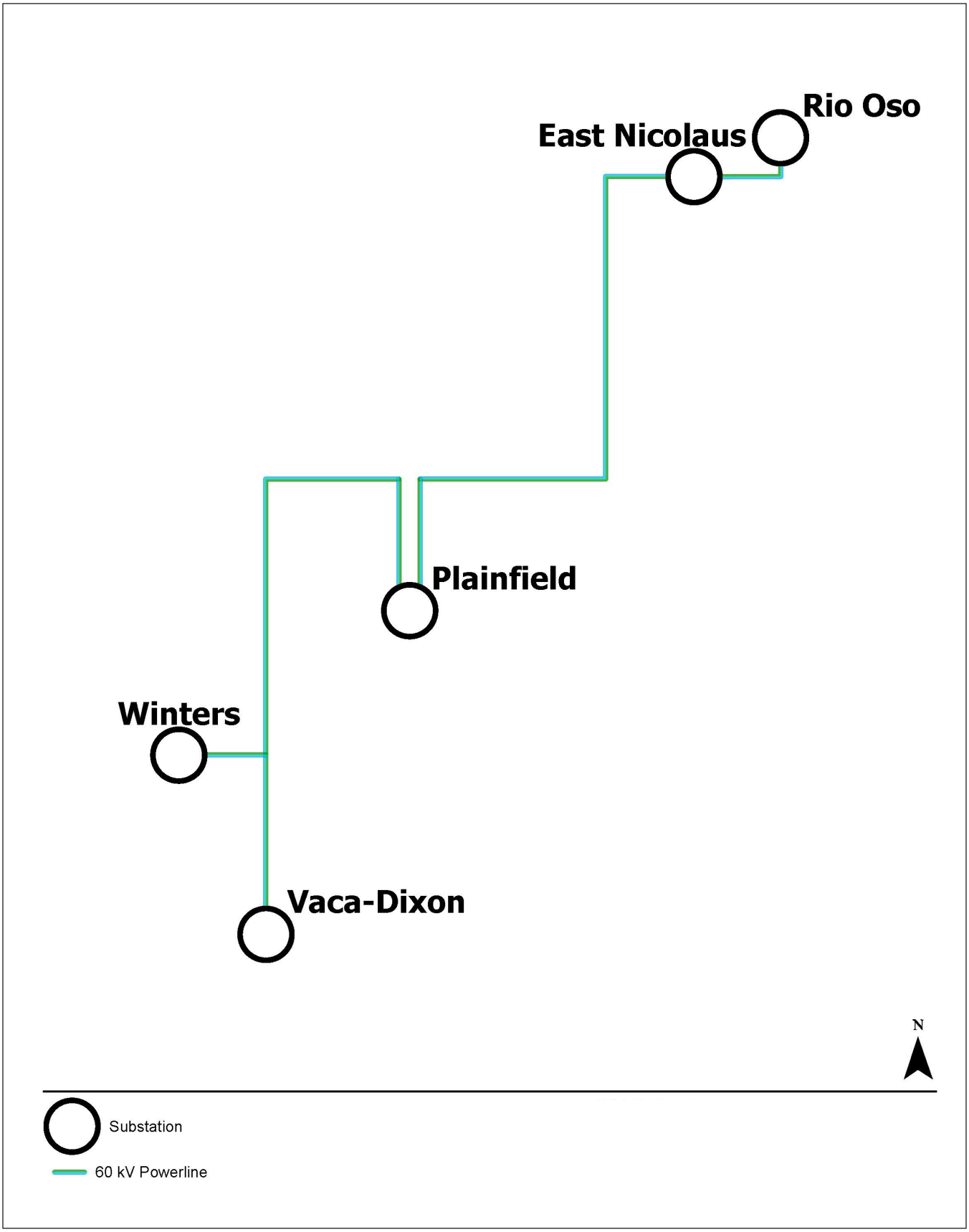


SOURCE: ESRI, 2024

Plainfield Substation Upgrade Project

Figure 2-1
Project Location

ESA



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SOURCE: ERM; PG&E

Plainfield Substation Upgrade Project

Figure 2-2
Existing System

ESA

The existing Plainfield Substation is equipped with two transformers, rated at 60/12 kV 7.5 megavolt amperes and 115x60/12 kV 30 megavolt amperes, respectively. The substation receives power through the Vaca-Plainfield 60 kV and Nicolaus-Plainfield 60 kV power lines, and three 12 kV distribution lines extend from the substation, which cross CR 27 and run in both directions along the north side of CR 27.

2.3.1 Existing System Reliability

CAISO, in its 2010–2011 Transmission Plan, approved PG&E's Vaca Dixon–Davis Voltage Conversion Project, which would convert the 60 kV system between the Vaca-Dixon and Davis substations to a 115 kV operation. The CAISO 2017–2018 Transmission Plan subsequently determined that load projections did not increase as anticipated and concluded that four smaller independent projects would be adequate to replace PG&E's Vaca Dixon–Davis Voltage Conversion Project, which was renamed the Vaca Dixon Area Reinforcement Project.

CAISO identified the Plainfield Substation Upgrade Project as part of the Vaca Dixon Area Reinforcement Project in its revised 2017–2018 Transmission Plan, given the proximity of the Plainfield Substation to the Vaca-Dixon and Rio Oso substations. The four smaller independent projects that make up the Vaca Dixon Area Reinforcement Project, including the Plainfield Substation Upgrade Project, would alleviate the current and short-term electrical concerns identified by CAISO. Specifically, the Project would include the installation of two new 5 MVAR shunt capacitor banks at the Plainfield Substation to boost voltage to acceptable levels.

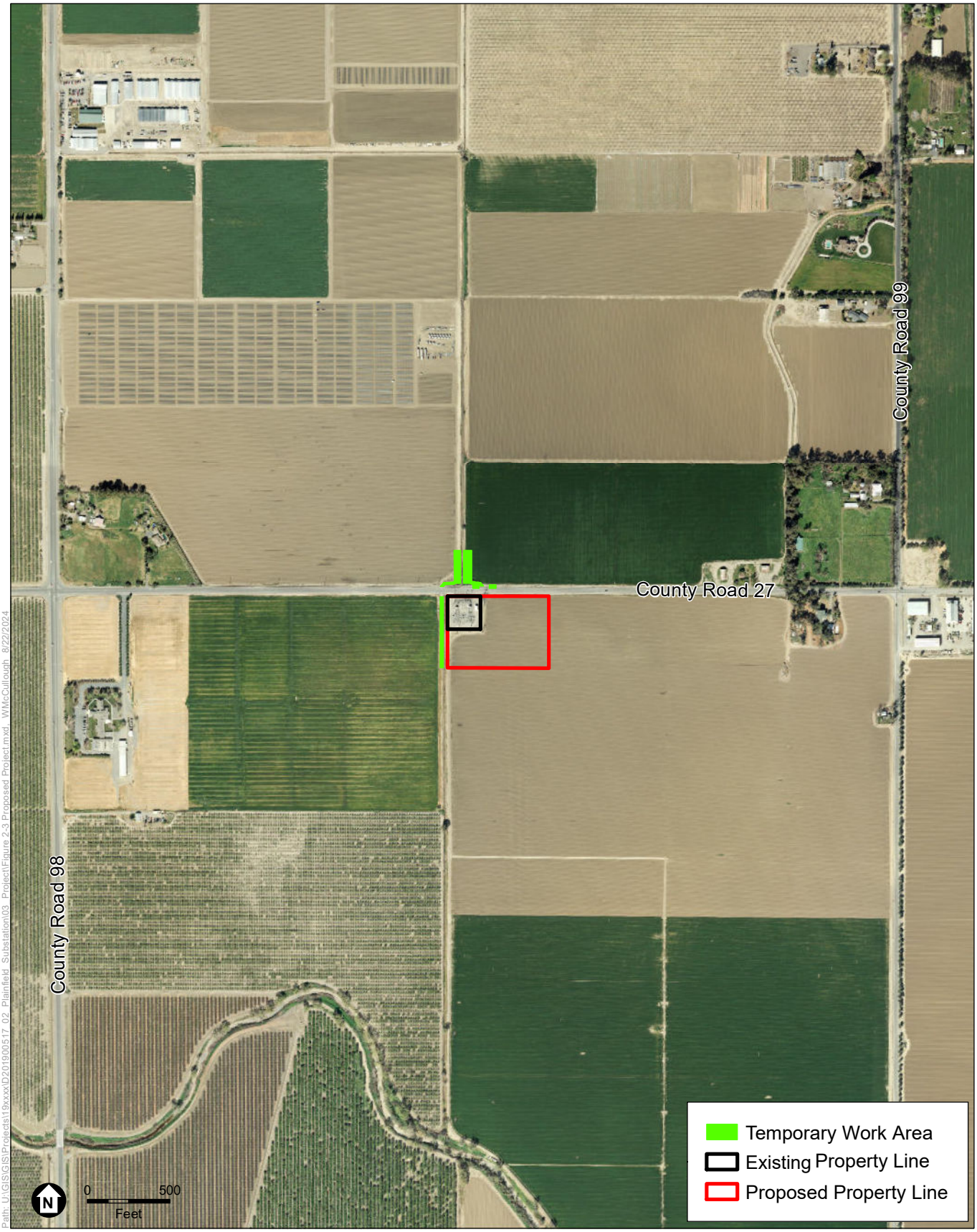
See Figure 2-2, *Existing System*, for a schematic of the regional interconnected network of 60 kV substations in PG&E's Sacramento Planning Area.

2.4 Project Overview

The Applicant would expand and upgrade the Plainfield Substation, adding two new 5 MVAR shunt capacitor banks and related equipment, to boost the voltage of the 60 kV lines to acceptable levels. The Vaca-Plainfield 60 kV and Nicolaus-Plainfield 60 kV power lines connecting into the substation and the distribution lines extending from the substation would not be modified as part of the Project, except within the substation itself. The Project would improve transmission stability within the Sacramento Planning Area, particularly for customers served by the Winters and Plainfield substations, which receive primary power from the Vaca-Dixon Substation.

See **Figure 2-3**, ***Proposed Project***, for an illustration of the Project components relative to existing general features at and near the Plainfield Substation site.

The Project would involve upgrading and expanding the existing Plainfield Substation to address low-voltage issues on the 60 kV lines from the Vaca-Dixon and East Nicolaus substations. The Project would add two new 5 MVAR shunt capacitor banks and associated equipment to the Plainfield Substation, with the goal of boosting the voltage levels within acceptable ranges as specified by North American Electric Reliability Corporation standards. The two new shunt capacitor banks would improve voltage stability and eliminate low-voltage violations on the 60 kV power lines, thereby supporting the reliability and efficiency of the electrical grid. The Project would not create a second system tie or loop for reliability.



SOURCE: ESA, 2024

Plainfield Substation Upgrade Project

Figure 2-3
Proposed Project

ESA

2.5 Plainfield Substation Facilities

2.5.1 Plainfield Substation Facilities Components

2.5.1.1 Plainfield Substation

PG&E's proposed Plainfield Substation expansion would be completed in one phase that would include the installation of two new 5 MVAR shunt capacitor banks and related equipment. The Project would expand the substation boundaries by approximately 415 feet east and 235 feet south of the existing substation fence line, adding approximately 5.2 acres to the substation footprint. The substation expansion components would include upgrades to the existing 60 kV bus; two new shunt capacitor banks; modifications to the existing SPCC containment system; installation of a stormwater retention pond; installation of a new, larger MPAC enclosure; and the replacement and installation of TSPs and all-aluminum conductor power lines. New fencing, lighting, and access road improvements would also be installed.

The Project would include the following actions, which are discussed in further detail in subsequent sections of this chapter:

- Expand the existing substation property approximately 415 feet eastward and 235 feet southward.
- Install new fencing around approximately 4.5 acres of the 6.1-acre parcel.
- Install two new 5 MVAR shunt capacitor banks.
- Upgrade the 60 kV bus.
- Install five new clean-air bus circuit breakers and two new sulfur hexafluoride (SF_6) capacitor switching circuit breakers.[2]
- Construct a stormwater retention pond at the east end with preliminary measurements of approximately 60 feet long by 320 feet wide and approximately 3 feet deep.
- Enlarge the existing SPCC containment system to be of sufficient size to handle a potential oil spill from equipment; expand the SPCC curb on the north side by approximately 65 feet to a total of approximately 210 feet, utilizing the existing SPCC system to minimize grading.
- Install a new MPAC enclosure to upgrade the station's protection and control scheme.
- Install a new station battery enclosure.
- Replace four existing double-circuit TSPs with 10 new single-circuit TSPs, each measuring approximately 3 feet in diameter and placed on concrete foundations approximately 6 feet long by 6 feet wide and 15 feet deep.
- Replace the existing 715.5 kcmil[3] all-aluminum conductor of the Nicolaus-Plainfield 60 kV and the Vaca-Plainfield 60 kV power lines with approximately 5,600 feet of new 715.5 kcmil all-aluminum conductor. The all-aluminum conductor would be replaced from the double-circuit TSP on the north

[2] Two new breakers insulated with SF_6 would be needed to support the new shunt capacitor banks because clean-air circuit breakers currently cannot function with capacitor banks.

[3] A kcmil equals 1,000 circular mils (mil = one thousandth of an inch), or 0.5067 square millimeters; a circular mil is the area of wire 1 mil in diameter.

side of CR 27 to all reconfigured TSPs within the expanded substation yard (total distance of approximately 1,868 feet).

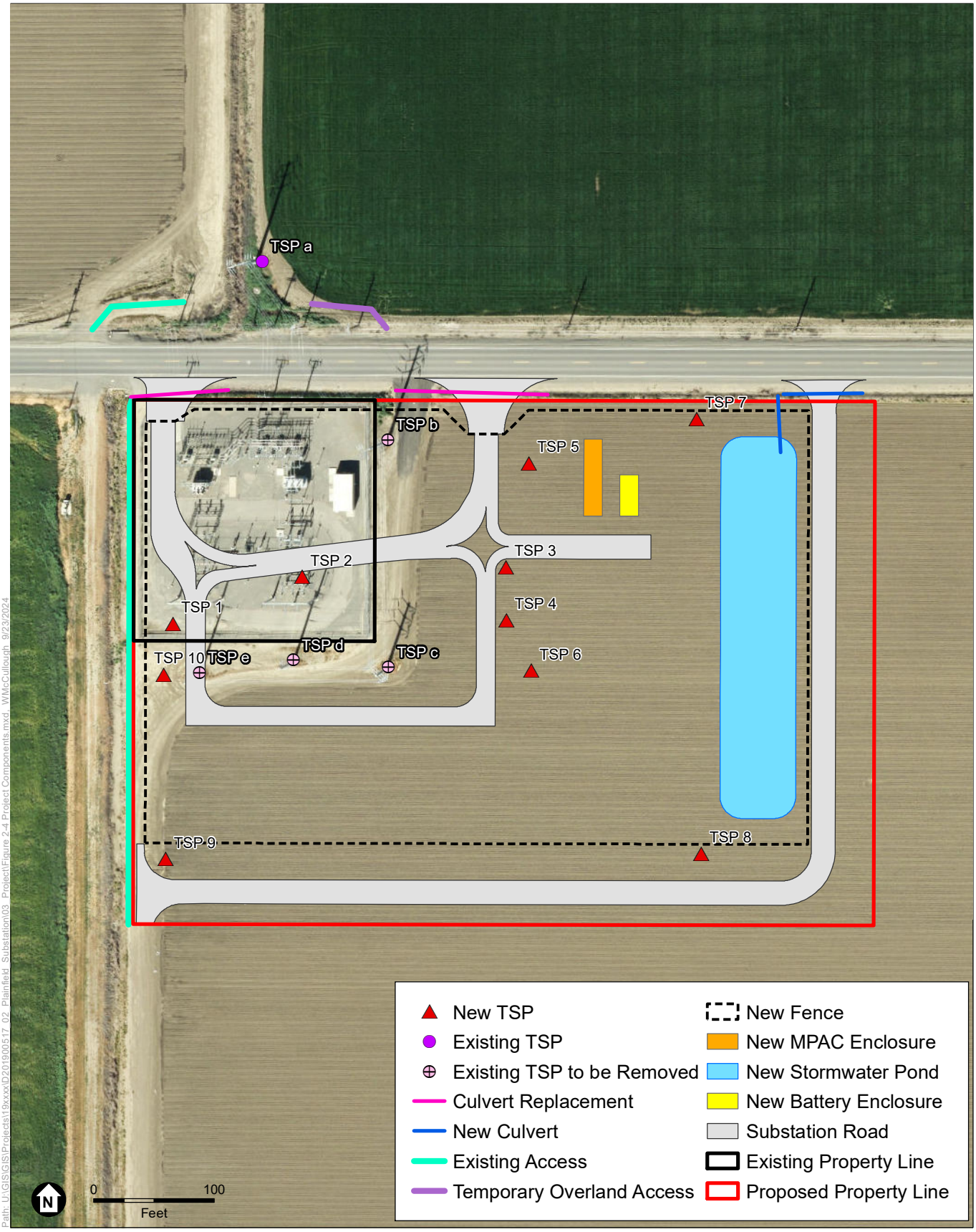
- Replace existing insulators on the TSP on the north side of CR 27. If necessary (e.g., further inspection finds unexpected corrosion), the TSP itself would also be replaced.
- Extend the existing fiber optic telecommunications line that enters the substation from the north to the new MPAC enclosure.
- Construct a 4-foot-high retaining wall along a portion of the fence line along the west side of the substation.
- Remove five existing light structures and install 12 new light-emitting diode (LED) lights in the upgraded 60 kV bus and the shunt capacitor bank area.
- Replace two metal culverts and install a third metal culvert providing access off CR 27.
- Pave access roads into and within the fenced substation yard with asphalt.

Figure 2-4, ***Project Components***, provides an overhead view of the on-the-ground Project components and temporary work areas. **Figure 2-5**, ***Substation Plan (Existing)***, provides a general site plan of the existing Plainfield Substation site. **Figure 2-6**, ***Substation Plan (Proposed)***, displays the proposed site layout of the Plainfield Substation. **Figure 2-7**, ***Substation Profile***, shows the existing and proposed profiles of the substation as viewed from west of the Project site.

2.5.1.2 Access Roads

The primary entrance to the existing Plainfield Substation features a 20-foot-wide gate accessible from CR 27. The entrance would be widened to approximately 30 feet to accommodate construction, operation, and maintenance access. A new 30-foot-wide paved access road with a 20-foot-wide gate would be constructed 300 feet east of the existing entrance. This would provide separate ingress and egress routes, improving traffic flow and accessibility during construction and ongoing operation and maintenance (O&M).

Existing perimeter access is provided by two dirt roads located outside of the existing substation fencing. The western boundary road is approximately 12 feet wide and runs parallel to an agricultural ditch. The eastern and southern perimeter road, approximately 20 feet wide, provides access to four TSPs located on the outside of the substation's perimeter fencing. The TSP on the north side of CR 27 is accessible from a 16-foot-wide dirt road. The dirt roads would be graveled to enhance accessibility, prevent damage, and support construction activities. The Project would also involve the replacement of two existing roadside culverts and the installation of a new culvert to support the proposed upgraded access infrastructure, as shown in Figure 2-4.

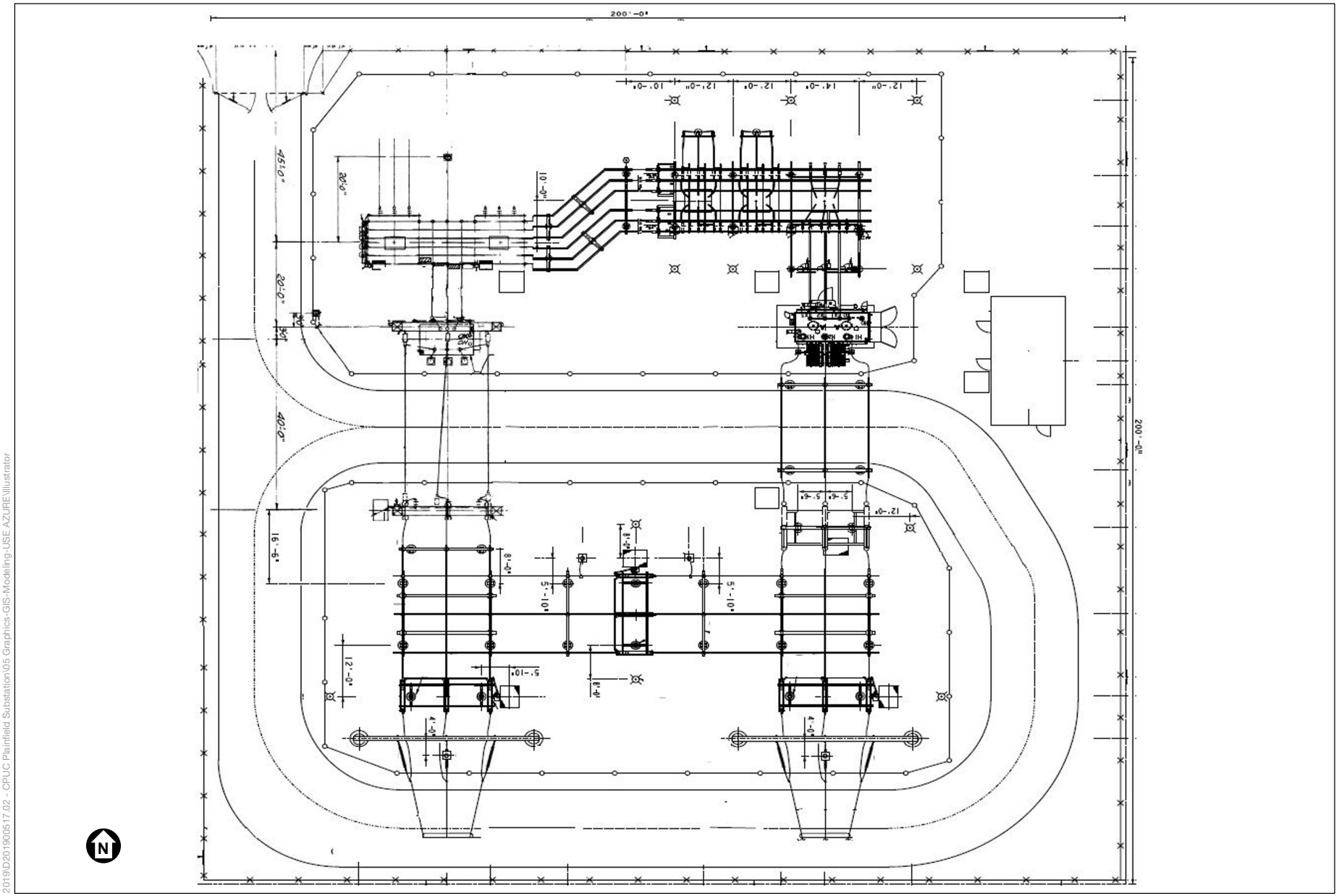


SOURCE: ESA, 2024

Plainfield Substation Upgrade Project

Figure 2-4
Project Components

ESA



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SOURCE: ERM; PG&E

Plainfield Substation Upgrade Project

Figure 2-5
Substation Plan (Existing)

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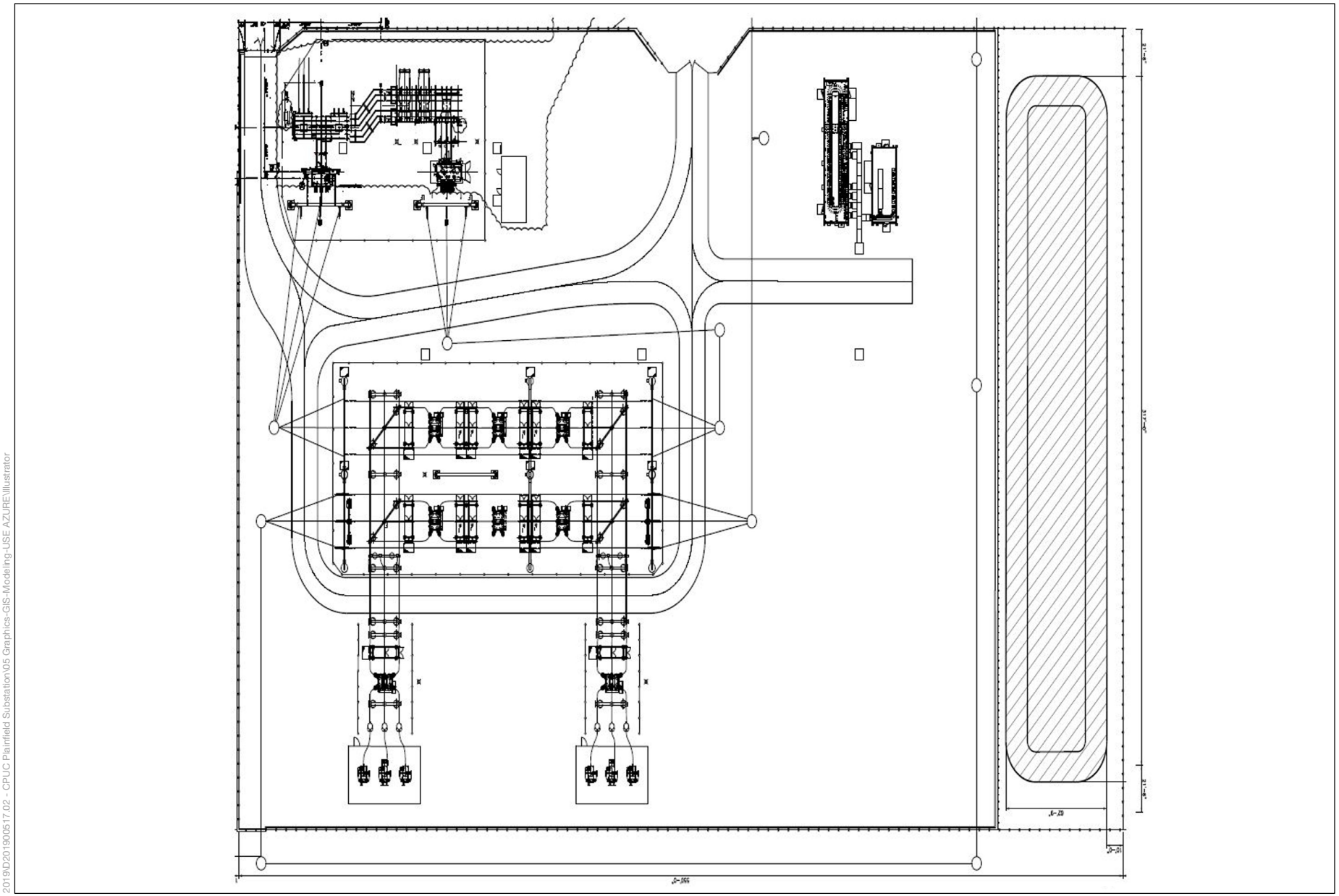

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SOURCE: ERM; PG&E

Plainfield Substation Upgrade Project

Figure 2-6
Substation Plan (Proposed)

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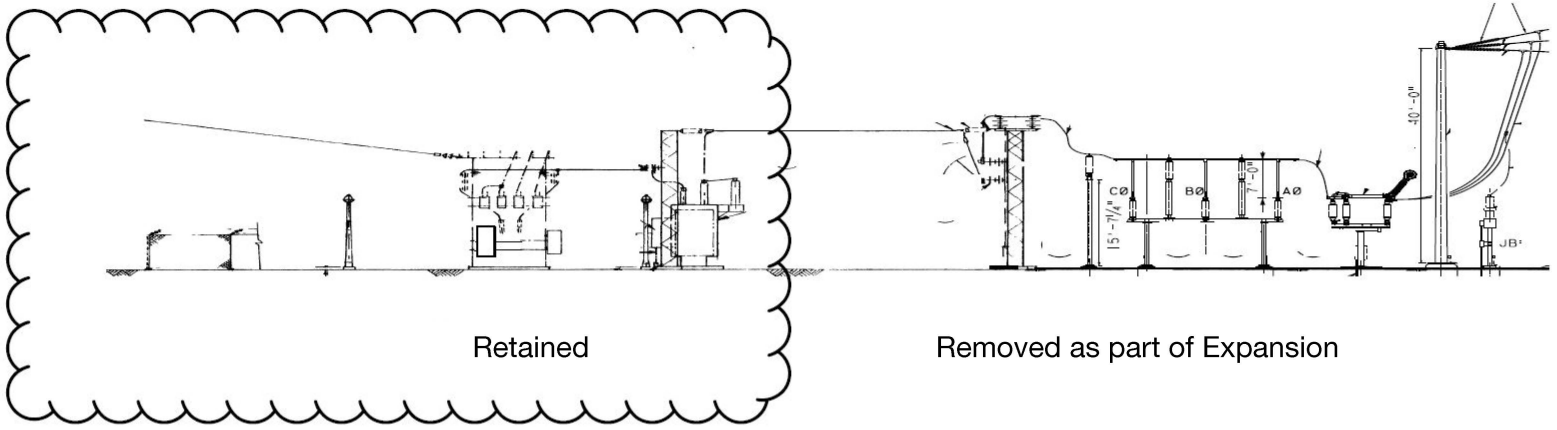

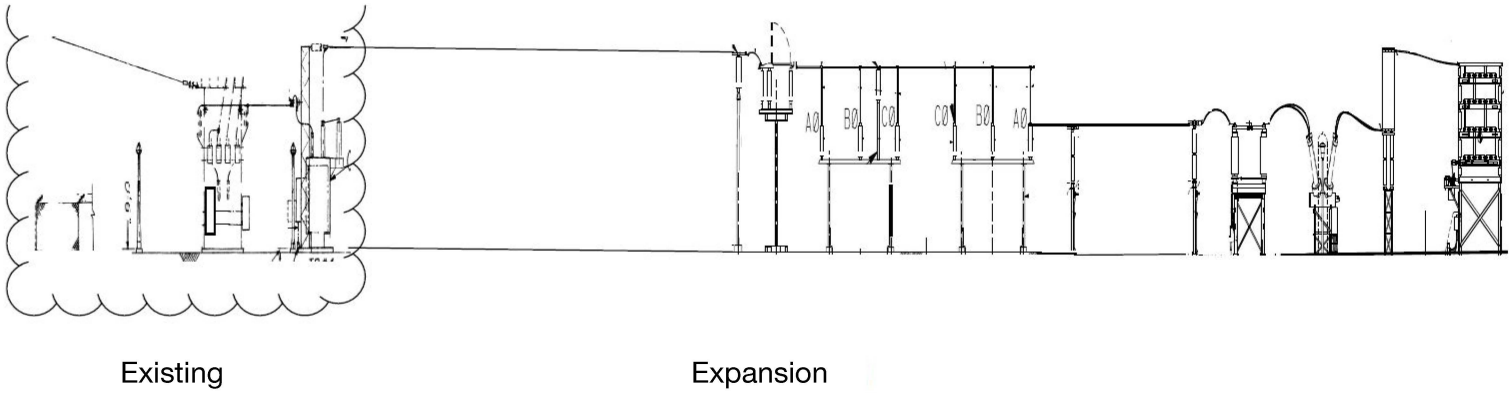

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SOURCE: ERM; PG&E

Plainfield Substation Upgrade Project

Figure 2-7
Substation Profile

ESA

2.5.1.3 Tubular Steel Poles and Power Lines

The existing Nicolaus-Plainfield 60 kV and Vaca-Plainfield 60 kV circuits approach the substation from the north using 715.5 kcmil all-aluminum conductor cables. These lines are supported by one double-circuit TSP on the north side of CR 27 and two double-circuit TSPs on the east side of the existing substation. On the south side of CR 27, the circuits are separated and supported on two individual TSPs.

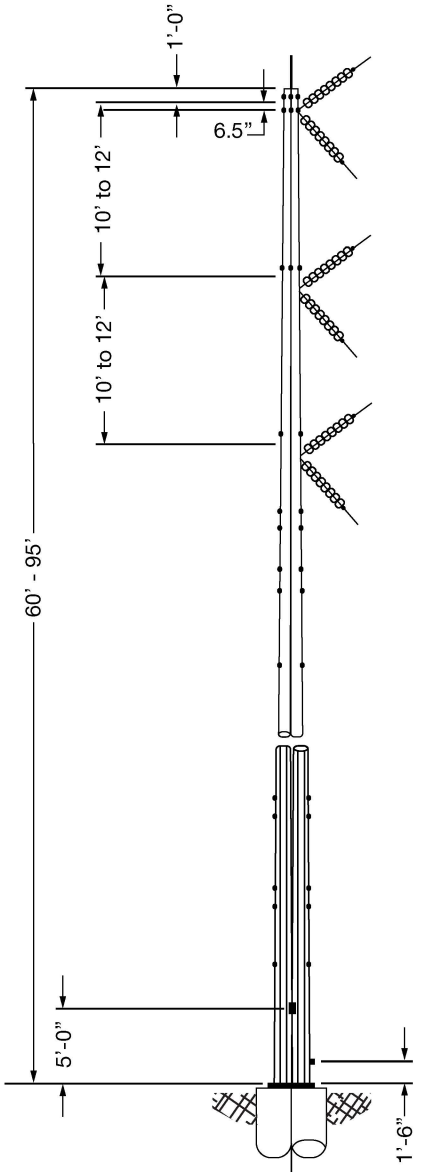
The four existing TSPs on the south side of CR 27 are approximately 55–60 feet tall and located within an easement along the east and south boundaries of the substation yard. See **Figure 2-8**, ***Typical Tubular Steel Pole***, for a graphical representation of a standard TSP. These four existing TSPs would be removed during the substation expansion, including removal of the concrete foundations, each with a depth of 15 feet and diameter of 6 feet. Two of the four existing TSPs would be reused within the substation expansion area.

The Project would involve the installation of 10 new TSPs on the expanded substation property site. The new TSPs would range from 60 to 95 feet tall with a base diameter of approximately 3 feet. The two TSPs not being reused, along with all four existing concrete foundations (3–5 feet below grade), would be removed before grading. The removal of the four existing concrete foundations would yield approximately 80 cubic yards of concrete. The new and reused TSPs would be installed on newly constructed concrete foundations measuring 6 feet long by 6 feet wide with a depth of 15 feet. The concrete foundations would have an aboveground height of approximately 1 foot.

The conductor between the TSP on the north side of CR 27 and the substation would be replaced with a new 715.5 kcmil all-aluminum conductor. The double-circuit TSP adjacent to the north side of CR 27 would be upgraded with new crossarms; however, the pole itself would not be replaced. PG&E would replace all 15 existing strings of insulators on this TSP, each retaining nine bells per string. See **Figure 2-9**, ***General Sequencing of Conductor Installation***, for a graphical representation of a typical conductor replacement effort.

To accommodate the necessary replacement work and conductor installation, PG&E would establish temporary work areas on both sides of the TSP, avoiding the top bank of the nearby agricultural ditch that runs north–south and crosses CR 27. The temporary work area on the east side of the ditch would measure approximately 50 feet by 200 feet. On the west side of the ditch, access would be provided by an existing dirt road used by farm equipment, which includes a culvert crossing the agricultural ditch parallel to CR 27. This road would lead to a 40-foot by 200-foot temporary work area. Mats may be used to facilitate equipment access.

The reconfiguration of the Nicolaus-Plainfield 60 kV and Vaca-Plainfield 60 kV circuits involves replacing the existing double-circuit TSPs with individual single-circuit TSPs within the expanded substation yard. This change is designed to support each line separately, enhancing the system's overall reliability and efficiency. To ensure uninterrupted service during the Project, a temporary bypass (i.e., shoo-fly) would be established, likely connecting to the Vaca-Plainfield line. This bypass would maintain the power supply to the existing transformers while the 60 kV bus is being removed and replaced, thereby minimizing any potential service disruptions for customers during the construction period.



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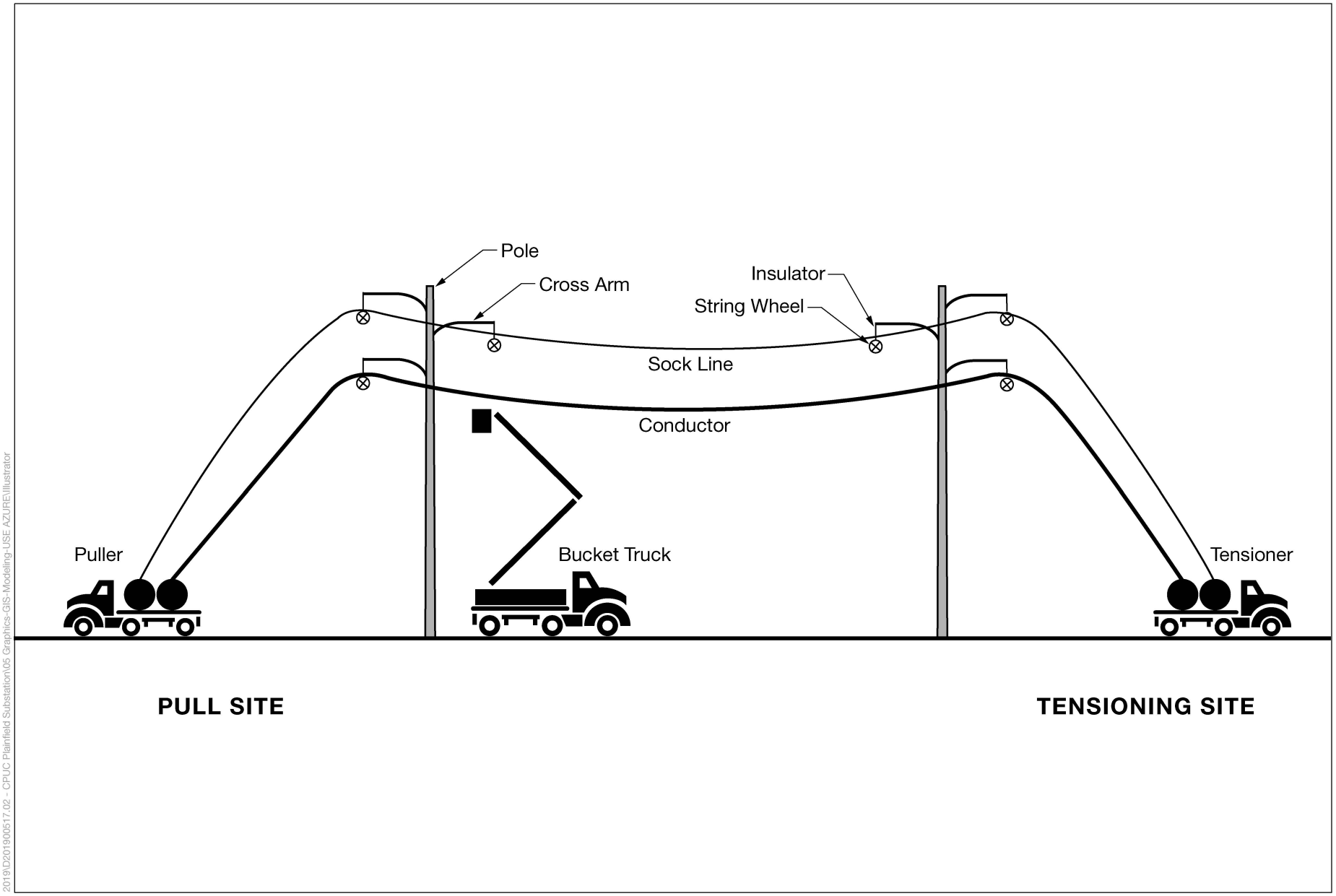
SOURCE: ERM; PG&E

Plainfield Substation Upgrade Project

Figure 2-8
Typical Tubular Steel Pole

ESA



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SOURCE: ERM; PG&E

Plainfield Substation Upgrade Project

Figure 2-9
General Sequencing of Conductor Installation

ESA

2.5.1.4 Modular Protection Automation and Control and Battery Enclosures

A new MPAC enclosure and station battery enclosure would be constructed within the northeast section of the expanded substation site, adjacent to two internal access roads. The MPAC facility provides the control, automation, and communication systems for the substation. The new MPAC enclosure would be designed to accommodate future upgrades and would be approximately 975 square feet (65 feet long and 15 feet wide). The station battery enclosure would be located adjacent to the new MPAC enclosure and would measure approximately 40 feet long by 15 feet wide. The station battery would provide emergency backup power to the expanded substation in the event of a power outage. The existing MPAC serving the existing Plainfield Substation would be decommissioned and the enclosure converted into a storage room.

2.5.1.5 Capacitor Banks

The expanded substation would require upgrades to the existing 60 kV bus, which provides a connection between transmission lines and substation components. The substation upgrades would not change the existing system, which includes the Vaca-Plainfield 60 kV and Nicolaus-Plainfield 60 kV power lines connecting into the substation and the distribution lines extending from the substation. Upgrades would include adding two 60 kV 5 MVAR shunt capacitor banks to the upgraded 60 kV bus, which would operate independently of the transmission line powering the substation. Adding two new 5 MVAR shunt capacitor banks would boost the voltage of the 60 kV lines to acceptable levels. Acceptable voltage levels are between 0.95 and 1.00 per unit, as required by the North American Electric Reliability Corporation. Associated components would include a nonconductive fence to prevent the potential for incidental contact with the energized equipment.

2.5.1.6 Security Fencing and Retaining Wall

A 6-foot-tall chain-link fence with 1 additional foot of barbed wire surrounds the 0.9-acre existing substation site. The Applicant would first replace the existing fence with a 6-foot-tall temporary perimeter fence to protect existing and new substation equipment and to control access to the site. The temporary fencing would remain until grading was completed. At that time, new permanent fencing would be installed on 4.5 acres of the 6.1-acre substation property. The permanent fencing would be approximately 9 feet tall, consisting of an 8-foot-tall chain-link fence topped with 1 foot of barbed wire. Construction activities would occur within the new fenced area, except for the new access road and two TSPs (TSPs 8 and 9 as shown on Figure 2-4). These components would be outside the fenced area but still within the substation property. Swing gates would be installed at the access points within the fenced area.

A concrete retaining wall would also be constructed along the west side of the substation where space constraints prevent maintaining a maximum 6 percent slope because of the proximity of an existing agricultural ditch. The retaining wall would be 315 feet long, extending 4 feet above ground and 2 feet below ground. In areas where a retaining wall would be present, fencing would be installed on top of the wall to provide additional security and clearly delineate the substation boundary.

2.5.1.7 Lighting

Lighting at the existing Plainfield Substation consists of stand-alone structures that are approximately 10 feet tall, with a shielded light at the top. The bulb brightness is rated at 10,000 lumens and although the lighting structures have automatic sensors, the Applicant currently keeps the lights on at all times. Light

structures at the substation provide workers with nighttime visibility and enhance safety. Five of the existing light structures surrounding the 60 kV bus would be removed and replaced with three new stand-alone light structures and nine new light fixtures mounted on the substation structure. Similar to the existing light structures, the new light structures would be equipped with LED light bulbs rated at 10,000 lumens and shielded with a gray galvanized finish. The new light structures would include automatic sensors, and most would be installed on dead-end structures. To prevent casting light or glare toward off-site locations, non-glare fixtures would be used.

2.5.1.8 Telecommunication Lines

Existing telecommunication infrastructure at the Project site includes two copper wires and a fiber optic line housed within a 4-inch conduit beneath CR 27. The copper wires, which once supported a phone line, are now disconnected. The fiber optic line, installed in 2018, provides a 10-megabits-per-second connection via Wave (i.e., Astound Broadband) and currently terminates at the existing MPAC enclosure.

As part of the substation expansion, the fiber optic line would be rerouted to a new MPAC enclosure located approximately 200 feet east of the current MPAC enclosure. This process would involve splicing the existing fiber optic line and extending it to the new MPAC location. PG&E would install a new concrete vault within the substation yard at the point where the existing fiber optic line enters the existing conduit beneath CR 27. The new vault would be approximately 6 feet long by 6 feet wide and 5 feet deep.

From the vault, the extended fiber optic line would run through a new 3-inch conduit to the new MPAC enclosure. The conduit would be buried 1 foot underground. Concrete caps would be added in areas where the conduit crosses under a roadway within the substation at a depth of less than 2.5 feet. All telecommunication upgrades would occur within the substation yard.

2.5.1.9 Stormwater

Stormwater runoff within the existing substation drains primarily to an SPCC skimmer/weir along the northern fence line of the substation's northeast corner. The SPCC skimmer/weir is approximately 3 feet long by 5 feet wide and 18 inches deep. A second SPCC skimmer/weir, measuring approximately 2 feet long by 2 feet wide and 6 inches deep, is located on the northeast corner of the substation to capture runoff in that direction. Concrete curbs extend approximately 145 feet along the northern fence line, 100 feet along the eastern fence line, and 65 feet along the western fence line. Concrete curbs measure approximately 6–18 inches high. The existing substation does not include a stormwater retention pond.

Stormwater runoff within approximately 0.18 acre of the expanded substation site, bounded by the existing internal access road, would drain into the existing SPCC skimmer/weir along the northern fence line. A new stormwater retention pond would be constructed along the eastern fence line within the expanded substation site. Apart from the 0.18 acre discussed above, stormwater runoff at the expanded substation site would be directed to the new stormwater retention pond through a system of swales within the substation. The new stormwater retention pond would measure approximately 60 feet long by 320 feet wide with a depth of 3 feet. The stormwater retention pond would be designed in accordance with applicable codes and would provide sufficient capacity to handle runoff from the expanded substation.

2.5.2 Construction of the Expanded Plainfield Substation Facilities

This section provides an overview of the methods that would be used for the construction of the Plainfield Substation Upgrade Project.

2.5.2.1 Site Preparation

Utilities

Before initiating construction, the Applicant would contact Underground Service Alert, also known as USA North 811, to identify underground utilities within or close to the Project site. There are no existing overhead utilities that would need to be relocated to accommodate the Project, and it is not anticipated that any underground utilities would be identified along any of the Project components. In the event that underground utilities are identified, the Applicant would work with the owner of those utilities to determine whether design changes could be made or whether relocation procedures would be necessary. No water, gas, or sewer lines are known to exist within the vicinity of the Project site.

Surveying, Staking, and Vegetation Clearance

Surveyors would establish grading limits and set grade stakes for the expanded substation pad. After the establishment of grading limits and grade stakes for the construction of the expanded substation, topsoil would be removed, and the subsoil would be graded and compacted. The expanded substation site contains agricultural row crops and non-native vegetation in the roadside ditches. Historically, the expansion area was used for growing corn and other row crops. Before construction, crops and other organic materials, if present, would be cleared and temporarily stockpiled within the Project site before being hauled off-site for disposal at a disposal facility. The Applicant would purchase the row crops and closely coordinate with the farmer before removal. The process of removal would depend on the type of crop and stage of growth. It is anticipated that crop removal would be performed by the farmer using farming equipment. Other vegetation clearing may include the removal of ruderal vegetation within the roadside ditch or during culvert replacement. Hand tools or a backhoe would be used for ruderal vegetation clearing. **Table 2-1**, ***Land Cover Disturbance***, outlines the land cover type and estimated acreage that would be affected by the expanded substation.

TABLE 2-1
LAND COVER DISTURBANCE

Land Cover Type	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary and Permanent Impacts (acres)
Agricultural	0.20	4.70	4.90
Disturbed	1.40	0.54	1.94
Ruderal	0.13	0.02	0.15
Roadside Ditch	0.01	0.01	0.02
Total	**1.74**	**5.27**	**7.01**

SOURCE: PG&E 2024b

Tree Trimming and Removal

The Plainfield Substation expansion would not require tree trimming or removal.

Work Area Stabilization

The terrain within the Project site is relatively flat. Following the removal of vegetation, the Applicant would implement dust control measures as described in Applicant Proposed Measure (APM) AIR-1 see Section 2.5.5, *Applicant-Proposed Measures*). Project construction would disturb more than 1 acre of soil. As a result, the Applicant would be required to prepare, file, and implement a storm water pollution prevention plan (SWPPP) in accordance with the State of California's Construction General Permit for stormwater discharges associated with construction (as described in APM HYDRO-1).

Excavation and Grading

Before substation upgrade activities, crews would grade, level, and gravel the expanded substation site. Imported fill would be used to match the elevation of the existing substation. Engineered fill would be spread and compacted on the substation pad surface, requiring approximately 16,060 cubic yards of cut and 26,600 cubic yards of fill.

2.5.2.2 Substation Construction

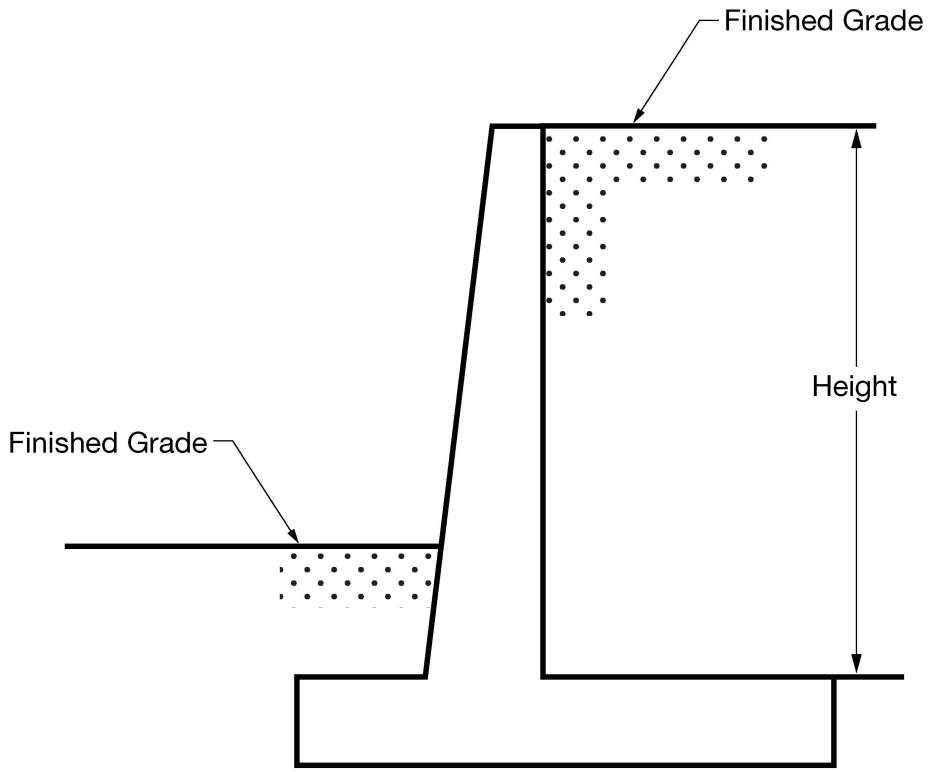
After the Applicant's acquisition of the Project site expansion area, the Applicant would remove the existing TSPs within the expanded substation site and install a temporary shoo-fly to provide power during construction. Rough grading would occur within the expanded substation site and a permanent, 9-foot-tall security fence would be installed around the site. Site preparation for installation of the expanded substation's equipment would include excavating and installing the subsurface interconnected system of conductors and pouring concrete footings and foundations for all the aboveground structures. The expanded substation's equipment would include new shunt capacitor banks, switches, aboveground steel structures, MPAC and battery enclosures, a stormwater retention pond, and other electrical equipment associated with the expansion. Unpaved areas within the expanded substation site would be compacted with crushed rock. Existing asphalt roads within the existing substation would be replaced with 30-foot-wide asphalt roads that would be used to access substation equipment. The asphalt removed from the existing roadways within the substation would be disposed of at the Teichert Aggregates facility in Woodland, approximately 5.8 miles northwest of the Project site.

Foundations

Table 2-2, ***Substation Components—Foundation Type and Dimensions***, provides information on the type of foundation methods that would be used for the substation components, and the approximate dimensions and depth of the foundations that would be installed.

Civil Works

The civil works for the Project would involve grading the site, constructing a stormwater retention pond, and installing a retaining wall along a section of the western fence line. After the completion of grading, the stormwater retention pond would be excavated. This pond would remain unlined to enable natural infiltration and groundwater discharge. The retaining wall would be constructed with a plywood structure, rebar, and concrete. Rebar would be placed within the plywood forms before being encased in concrete. Once the concrete has cured, the wooden forms would be removed. To ensure proper installation of the substation's security fence, fence posts would be embedded into the concrete before their full curing. See **Figure 2-10**, ***Typical Retaining Wall***, for a generalized representation of a standard retaining wall.



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SOURCE: ERM; PG&E

Plainfield Substation Upgrade Project

Figure 2-10
Typical Retaining Wall

ESA

TABLE 2-2
SUBSTATION COMPONENTS—FOUNDATION TYPE AND DIMENSIONS

Substation Component	Foundation Type	Approximate Width (feet)	Approximate Length (feet)	Approximate Diameter (feet)	Approximate Depth (feet)
Capacitor Banks	Slab-on-Grade	12.0	36.0	N/A	3.0
Capacitor Bank Reactors	Slab-on-Grade	8.0	28.0	N/A	3.0
High-Voltage Circuit Breakers	Slab-on-Grade	8.0	7.0	N/A	2.5
60 kV Rigid Bus and Maintenance Disconnects	Augered Pier	N/A	N/A	2.5	9.5
Maintenance Operating Platforms	Cast-in-Place Blocks	0.5	4.0	N/A	1.5
60 kV Strain Bus and Transmission Transition Structures	Augered Pier	N/A	N/A	4.5 to 6.0	14.5 to 24.5
Potential Transformers for Protection and Control	Augered Pier	N/A	N/A	2.5	9.5 to 1.5
Surge Arrestors for Protection and Control	Augered Pier	N/A	N/A	2.5	9.5
Modular Protection and Control Enclosure	Slab-on-Grade	16.3	65.0	N/A	3.0
Battery Enclosure	Slab-on-Grade	15.5	34.2	N/A	3.0
Station Service Transformer for Enclosures	Augered Pier	N/A	N/A	2.5	12.5
Pull Boxes for Telecom Fibers	Precast Rectangular Vault	6.0	6.0	N/A	5.0
AC Cabinet and AC Transfer and Lightning Panel	Slab-on-Grade	4.0	7.0	N/A	1.0
Cabinet Support	Augered Pier	N/A	N/A	1.0	5.8

NOTES: AC = alternating current; ft = feet; kV = kilovolt; N/A = not applicable
SOURCE: PG&E 2024

2.5.2.3 Transmission Line Construction (Above Ground)

Tubular Steel Poles

As discussed in Section 2.5.1.3, *Tubular Steel Poles and Power Lines*, the four existing TSPs on the south side of CR 27 (TSPs b, c, d, and e as shown on Figure 2-4) would be removed and replaced with 10 new TSPs. The new TSPs would measure approximately 3 feet in diameter, would be approximately 60–95 feet tall, and would extend 15–20 feet underground. The depth of the TSPs would depend on soil characteristics. TSP foundation excavation would occur over approximately 12 days, with an additional 12 days for setting steel rebar cages and pouring concrete. The TSPs would be delivered to the site in two or three pieces on a semitruck and then reconstructed on-site using a crane. Holes for the TSPs would be excavated, and soil material would be tested and disposed of in accordance with applicable regulations. Reinforced steel would be placed in the TSP holes and secured to a bolt assembly plate. Concrete forms would be installed and would sit 1–2 feet above ground level, followed by a concrete pour around the reinforced steel, stopping at the bolt assembly plate. The TSPs would be reconstructed on the foundations from the ground up. A crane would first install the pole base on the foundation where it would be bolted into place. The middle sections would then be lowered into place. Finally, the top section would be fitted with crossarms

and insulators before being lifted into place. TSP work areas are outlined in **Table 2-3**, ***Tubular Steel Pole Component Work Areas***.

TABLE 2-3
TUBULAR STEEL POLE COMPONENT WORK AREAS

Component	Metric
Pole Diameter • Self-supporting steel	3 feet
Auger Hole Depth • Self-supporting steel	15–20 feet
Number of Poles/Towers • Self-supporting steel	10

SOURCE: PG&E 2024b

Conductor Replacement

The existing substation conductor extends from the north side of CR 27 and would be replaced with a new 715.5 kcmil conductor. Conductor replacement would require sheaves or string blocks, pull and tension equipment, a sock line, and vibration dampers. Figure 2-9, *General Sequencing of Conductor Installation*, provides a graphical depiction of a typical conductor replacement. Workers would start by installing sheaves or string blocks that would allow the conductor to be pulled through each TSP structure. Once the pull and tension equipment is in position, a sock line would be pulled from pole to pole using ground equipment. The sock line is a small cable that, once in place, would be attached to the conductor and used to pull the conductor from pole to pole. This would be done using the tension-stringing method, in which the conductor is strung through each sheave, keeping the conductor line off the ground through tension from the equipment on the ground. After conductor placement, the conductor would be adjusted to pre-calculated levels and clamped to the end of each insulator, and the sheaves would be removed. Once the sheaves are removed, vibration dampers and other accessories would be installed.

Temporary work areas for the conductor installation would be located on each side of the TSPs—north of CR 27 and along the west side of the agricultural ditch to the west of the substation (see Figure 2-2, *Proposed Project*). The temporary work area on the east side of the agricultural ditch would measure approximately 50 feet by 200 feet and would be accessed by overland travel across the agricultural field, a distance of approximately 70 feet. Adjacent to the north–south agricultural ditch, there is an existing dirt access road used by farm equipment that would be used to access the second 40-foot by 200-foot temporary work area. Guard structures would also be needed and are discussed in detail below.

Telecommunications

As discussed in Section 2.5.1.8, *Telecommunication Lines*, the substation expansion would require rerouting the existing fiber optic line to the new MPAC enclosure located approximately 200 feet east of the current MPAC enclosure. This would include routing the spliced line through a new concrete vault that would be installed where the existing line enters the existing conduit. All telecommunication upgrades would occur within the substation yard.

Guard Structures

Guard structures may be used temporarily during conductor replacement across CR 27 because of the narrow roadway and the short amount of time it would take to install the conductor. Four metal or wooden poles with a net in between would make up the guard structures. The net would be used to catch the power line if it were to drop during installation. Guard structures would be located between TSP "a" on the north side of CR 27 (as shown on Figure 2-4) and the replacement TSPs within the expanded substation. Two additional temporary work areas would be located under the Nicolaus-Plainfield and Vaca-Plainfield power lines at the north shoulder of CR 27, measuring 20 feet long by 40 feet wide (see Figure 2-3, *Proposed Project*). This area would be used to set up guard structures up to 1 week before conductor installation. Traffic control would be implemented to help control traffic flow and ensure worker safety during this construction period. Guard structures would be removed upon completion of the conductor installation.

Blasting

Blasting would not occur as part of substation expansion and upgrade activities.

2.5.2.4 Transmission Line Construction (Below Ground)

Trenching

No transmission lines would be installed underground. No trenching of transmission lines would occur.

Trenchless

Trenchless techniques would not be used as part of substation expansion and upgrade activities.

2.5.2.5 Staging Areas

All staging areas, including equipment, material staging, and parking for workers, would be located within the expanded substation site. Preparation of the expanded substation site for staging and parking would include the removal of any existing crops, followed by the removal of topsoil and grading and compaction of subsoil. Perimeter chain-link fencing would be temporarily installed around the expanded substation. The temporary fence would be approximately 6 feet tall and would be removed when grading is complete. As discussed in Section 2.5.1.6, *Security Fencing and Retaining Wall*, a permanent fence approximately 9 feet tall, consisting of an 8-foot-tall chain-link fence topped with 1 foot of barbed wire, would replace the temporary fencing.

2.5.2.6 Work Areas

Temporary work areas needed for the Project are discussed below. All other work would occur within the existing 0.9-acre parcel and expanded substation footprint (5.2 acres). All equipment staging areas, laydown areas, and parking for construction workers would be located within the expanded substation footprint.

Temporary Work Area

As discussed above, upgrades for the existing substation and construction of the expanded substation would occur within the existing and expanded substation areas. However, temporary work areas would be needed for TSP-related work. Temporary work area–related activity, locations, and temporary disturbance

acreages are described in **Table 2-4**, ***Temporary Work Areas***. Temporary work areas are shown on Figure 2-2, *Proposed Project*.

TABLE 2-4
TEMPORARY WORK AREAS

Area	Size and Location	Temporary Disturbance (Acres)
TSP access	40 feet by 200 feet, west side of the agricultural ditch, north of CR 27.	0.18 acre
TSP access	50 feet by 200 feet, east side of the agricultural ditch, north of CR 27.	0.23 acre
Guard structures	Two 20-foot by 40-foot areas on roadside on north side of CR 27.	0.02 acre
Location of conductor installation between the new TSPs	20 feet by 430 feet along the access road on APN 041-050-001, extending southward from CR 27 on the west side of the agricultural ditch, west of the substation.	0.20 acre
Total Acres		**0.63 acre**

NOTES: APN = Assessor's Parcel Number; CR = County Road; TSP = tubular steel pole.
SOURCE: PG&E 2024

Work Area Disturbance

Construction of the expanded Plainfield Substation would result in 5.2 acres of new permanent disturbance. The 0.9-acre area containing the existing substation is already considered permanently disturbed. Together, the existing and expanded Plainfield Substation areas would occupy approximately 6.1 acres of permanently disturbed lands. **Table 2-5**, ***Substation Facilities Work Area Disturbance and Dimensions***, summarizes the estimated disturbance areas for each Project component.

TABLE 2-5
SUBSTATION FACILITIES WORK AREA DISTURBANCE AND DIMENSIONS

Work Activity	Disturbance Area and Dimensions
Expand the substation	415 feet eastward and 235 feet southward
Install two new 5 MVAR shunt capacitor banks	N/A
Upgrade the 60 kV bus	N/A
Install a stormwater retention pond	60 feet long by 320 feet wide with a depth of 3 feet
Enlarge the SPCC containment system	Expand the SPCC curb on the north side, approximately 65 feet to a total of approximately 210 feet
Install a new MPAC enclosure	975 square feet, with a length of approximately 65 feet and width of approximately 15 feet
Install a new station battery enclosure	40 feet long by 15 feet wide
Replace four existing TSPs with approximately 10 new TSPs	6 feet long by 6 feet wide with a depth of 15 feet
Replace existing overhead conductor	N/A
Extend existing fiber optic telecommunications line	N/A
Remove five existing light structures and install 12 new LED lights	N/A
Construct a retaining wall	315 feet long, 4 feet above ground, and 2 feet below ground
Replace two metal culverts and install a third culvert	18 inches in diameter

NOTES: kV = kilovolt; LED = light-emitting diode; MPAC = modular protection automation and control; MVAR = megavolt ampere reactive power; N/A = information not applicable; SPCC = spill prevention, control, and countermeasure; TSP = tubular steel pole.
SOURCE: PG&E 2024

2.5.2.7 Temporary Power

Construction trailers would require temporary power, which would be obtained from the existing distribution transformers at the substation. Diesel generators may also be brought on-site if necessary—for example, if power is needed in advance of tapping into the existing distribution line or if there is a transmission line outage.

2.5.2.8 Construction Access

Existing access roads that would be improved and new access roads that would be constructed are outlined in **Table 2-6**, ***Construction Access Roads***, and described in further detail below.

TABLE 2-6
CONSTRUCTION ACCESS ROADS

Roadway	Description	Disturbance Area (Acres)
Existing Dirt Road	Typically double track. May have been graded previously. No other preparation would be required, although a few sections may need to be re-graded and crushed rock applied in very limited areas for traction.	0.07 acre
New Permanent Road	Would be 20 feet wide and bladed. No other preparation would be required, although crushed rock may need to be applied in very limited areas for traction	0.61 acre
Overland Access	No preparation would be required. Typically would be grassy areas that are relatively flat. No restoration would be necessary.	0.03 acre

SOURCE: PG&E 2024b

Existing Access Roads

The existing gated access road off CR 27 would be widened by approximately 30 feet to provide construction and equipment vehicles with adequate access to the site. A 16-foot-wide dirt road runs between the west side of the substation and the adjacent agricultural ditch. Approximately 435 linear feet of this existing road would be graveled. The temporary work area on the west side of TSP "a" would be accessed by the existing dirt farm road. Upon completion of construction, modified roads would be returned to their preconstruction conditions. However, any aggregate added to existing roads would be left in place unless otherwise specified in landowner agreements.

New Access Roads

A new access gate would be installed approximately 300 feet east of the existing access gate. The new and existing ingress/egress would provide access to the site via CR 27. A new access road would be constructed within the expanded substation parcel (but outside of the perimeter fence) adjacent to the eastern and southern borders of the substation (see Figure 2-4). This new road would provide access to TSPs 8 and 9 and would also be used by the neighboring landowner to access their agricultural field. Construction of the expanded substation would include 2,250 linear feet of access roads within and outside the fenced area. Access roads would range from 16 to 20 feet wide.

Overland Access Routes

Temporary overland access would be needed during construction to access the temporary work area on the east side of TSP "a" located on the north side of CR 27. Matting would be installed across the

agricultural land that runs parallel to CR 27 to allow workers to access the temporary work areas for the TSP construction work.

Watercourse Crossings

Construction of the expanded Plainfield Substation would not include any watercourse crossings, but the Project site includes agricultural and roadside ditches. Irrigation water flows through the agricultural ditches (i.e., canal system) intermittently during the dry season after rain events have largely stopped and the soil is dry. The start of the irrigation season depends on the amount and timing of rain received during the winter and spring months but typically occurs in late March or early April (Sicke, pers. comm., 2024).

The two culverts on the south side of CR 27 would be replaced, and a third culvert would be installed (see Figure 2-4); the culverts would be approximately 18 inches in diameter. Gravel and pavement would be removed before installation of the replacement and new culverts. The bottom of the ditch would be recontoured to enable proper flow through the replacement and new culverts if needed. The final step would be to cover the culverts with 0.75- to 1-inch compacted gravel.

2.5.2.9 Public Safety and Traffic Control

The active construction and staging areas would be fenced at all times and would restrict public access to the site. As discussed in Section 2.5.2.4, *Transmission Line Construction (Above Ground)*, guard structures may be used temporarily during conductor replacement because of the narrow roadway and the short duration of time required to install the conductor. Traffic control would also be implemented to help control traffic flow and ensure worker safety during this construction period. In addition, because truck traffic would enter from and exit to a Yolo County (County)–maintained roadway, the Applicant would implement APM TRANS-1 (see **Table 2-10**, ***Applicant-Proposed Measures***, in Section 2.5.5, *Applicant-Proposed Measures*). As outlined in APM TRANS-1, the Applicant would obtain applicable encroachment and transportation permits from the California Department of Transportation (Caltrans) and local jurisdictions. Jurisdictional and permit requirements may require signage and/or flaggers to maintain public safety and reduce potential disruptions to traffic flow during construction. If construction activities would require lane or road closure of CR 27, the Applicant would notify local emergency service providers at least 24 hours before any full or partial road closure. The Applicant would provide emergency service providers serving the Project area with the anticipated date, time, and duration of the lane or road closure and appropriate emergency contact information.

2.5.2.10 Dust, Erosion, and Runoff Controls

Dust

Dust control measures outlined in APM AIR-1 would include placing soil stabilizers, watering dust-generating surfaces, limiting vehicle speeds to 15 miles per hour on unpaved surfaces, and limiting the simultaneous occurrence of more than two ground-disturbing construction phases on the same area at any one time. These dust control measures would apply to any construction, excavation, extraction, and other earthmoving activities.

Erosion

The Project would disturb more than 1 acre of soil, so the Applicant would develop a SWPPP as required by the State Water Resources Control Board (California). During construction, the Applicant would implement the SWPPP in accordance with APM HYDRO-1 (see Section 2.5.5, *Applicant-Proposed Measures*).

Runoff

The expanded substation yard would be graded so that stormwater would drain to the proposed stormwater retention pond, which would be designed to provide sufficient capacity to handle runoff from the expanded substation site in conformance with applicable codes; excess water from the retention pond would discharge into the roadside ditch on the south side of CR 27. The retained portion of the existing substation, along with approximately 0.18 acre of the expanded substation that would be bounded by the same internal access road, would have drainage directed to the SPCC skimmer structure along the northern fence line before draining off-site.

2.5.2.11 Water Supply and Use

The Project would require approximately 7.2 acre-feet of water during the 18- to 21-month construction period. This assumes that up to two water trucks would be used 5 days a week for dust suppression and other construction-related activities. Each water truck would have a volume of approximately 4,000 gallons. The Applicant would use recycled or reclaimed water if available. If recycled or reclaimed water is not readily available, the Applicant would truck in water from the city of Woodland or Davis. **Table 2-7**, ***Estimated Construction Water Use***, details anticipated water use by construction activity during the 18- to 21-month construction period.

TABLE 2-7
ESTIMATED CONSTRUCTION WATER USE

Activity	Duration (weeks)	Gallons per Day	Total Gallons	Acre-Feet
Site Expansion	26	8,000	1,040,000	3.2
Substation and Stormwater Pond Construction	55	8,000	1,100,000	3.4
Substation Final Grading	6	8,000	180,000	0.6

SOURCE: PG&E 2024b

Dewatering

During TSP installation, shallow groundwater may be encountered. If encountered, the excavated TSP holes would be dewatered using sump pumps and either reused for construction-related dust control or discharged in the adjacent roadside ditch along CR 27.

2.5.2.12 Hazardous Materials and Management

Construction of the expanded Plainfield Substation would require the limited use of hazardous materials, such as fuels, lubricants, cleaning solvents, and other chemicals. Additionally, the substation would include transformers containing mineral oil, which is considered a hazardous material in California. All hazardous materials would be stored, handled, and used in accordance with applicable regulations. Safety

Data Sheets would be made available at the construction site for all crew workers. Based on the anticipated volume of hazardous liquid materials (e.g., fuel) that would be stored and dispensed at the proposed staging area, an updated SPCC plan would be required in accordance with the applicable provisions of Code of Federal Regulations Title 40, Part 112. No preexisting hazardous waste is expected; however, should any be encountered at the Project site, it would be removed and disposed of in a manner consistent with all federal and state regulations. Herbicides and/or pesticides are not proposed for use during construction.

Upon completion of construction, the existing SPCC plan and hazardous materials business plan for the Plainfield Substation would be updated to incorporate any changes in protocols for the use, transport, storage, management, and disposal of hazardous materials relevant to the operational phase of the upgraded substation. The plans would be updated in accordance with relevant federal and state guidelines and regulations (e.g., California Division of Occupational Safety and Health regulations).

2.5.2.13 Waste Generation and Management

Solid Waste

Construction debris generated from the Project would be collected at the substation site and placed in on-site containers. The containers would be periodically transported for recycling or proper disposal. Salvageable items, such as usable conductor, steel, and hardware, would either be sent to recycling facilities or stored at a PG&E facility. Examples of recyclable items include damaged steel from pole assemblies, conductor segments, conductor reels, pallets, and broken hardware. The construction workforce, consisting of up to 20 workers during peak periods, would generate minimal solid waste, including food waste, glass, paper, plastic, and packaging materials. General solid waste would total approximately 19 tons. Construction-generated waste that cannot be reused or recycled, such as wood, soil, vegetation, and sanitation waste, would be transported to waste management facilities for potential composting or disposal. The Applicant estimates that approximately 3,120 feet of electrical conductor (approximately 0.5 cubic yard) and the corresponding insulators (approximately 0.3 cubic yard) would be removed and recycled. Of the four existing double-circuit galvanized steel TSPs within the substation, two would be reused on-site, and the other two would be removed and hauled to one of the Applicant's storage facilities for potential future reuse. The crossarms on the TSP north of CR 27 would be removed and recycled. All four existing concrete TSP foundations within the substation site would be removed and disposed of appropriately.

During site preparation, solid waste generated would include asphalt, steel, vegetation, soil, and fencing. The removal of approximately 1,500 square feet of asphalt at the existing entrance driveway, along with two culverts in the roadside ditch on the south side of CR 27, would result in the recycling of approximately 222 cubic yards of asphalt and 0.1 cubic yard of corrugated steel. Approximately 800 feet of chain-link fence material (3.5 cubic yards) around the perimeter of the existing substation would also be removed and recycled. The removal of vegetation, consisting of ruderal vegetation and row crops, is estimated to generate up to 114 cubic yards of agricultural and green waste, should a crop of corn be removed at maturity. Additionally, approximately 16,060 cubic yards of soil would be hauled off-site for disposal. Soils that are not usable and/or are identified as contaminated would be tested to assess them before appropriate transportation to a licensed landfill facility.

Solid waste generated during Project construction would be collected and temporarily stored at a staging area. Recyclable and nonrecyclable waste would be sorted and stored separately. The Applicant estimates that the entire mass of removed TSPs can be recycled. No on-site treatment of solid waste would occur. Solid waste would be transported off-site using Applicant-approved transporters and disposed of at approved disposal facilities or recycling centers.

Liquid Waste

Liquid waste streams associated with the construction of the Project would consist primarily of sanitary waste and stormwater runoff. Sanitary waste from self-contained portable toilets would be routinely pumped as needed and would be taken by the vendor to a sanitary waste facility for appropriate disposal. Sanitary waste would be transported by the licensed sanitary waste services for off-site disposal at their contracted treatment, storage, and disposal facilities.

Hazardous Waste

Project construction would generate limited amounts of hazardous wastes, such as used lubricants, cleaning solvents, and other chemicals. Additional hazardous wastes that could be encountered or released during construction include contaminated soils, incidental spill waste, and concrete washout. There would be a low potential for encountering contaminated soil or groundwater during trenching and other ground-disturbing activities. If contaminated materials are discovered, soil would be separated for on-site testing, management, and disposal. If hazardous materials are discovered during trenching, work would cease immediately.

Waste generated or encountered would be handled, contained, and disposed of according to federal, state, and local regulations. In addition, as described previously in Section 2.5.2.13, *Hazardous Materials and Management*, a hazardous materials business plan would be prepared before construction, describing protocols for the use, transport, storage, management, and disposal of hazardous materials. This could include containment and transport in vessels approved by the U.S. Department of Transportation, the use of secondary containment, and training of material handlers to ensure workers' safety and the reduction of cross contamination.

2.5.2.14 Fire Prevention and Response

Construction Fire Prevention

The Plainfield Substation site is not located in an area identified as a high fire threat area by the California Department of Forestry and Fire Protection or the CPUC. However, during construction, the Applicant would implement fire prevention practices including communication, training, and fire suppression equipment to be kept on-site, as described in APM FIRE-1 (see Table 2-10 in Section 2.5.5, *Applicant-Proposed Measures*).

Fire Breaks

The vegetation within the existing Plainfield Substation is permanently disturbed, and the expansion area would be as well once construction is complete. No trees or vegetation would remain within the existing or expanded substation property. Additionally, the Plainfield Substation is not located in a fire hazard area, so fire breaks are not required.

2.5.2.15 Construction Workforce, Equipment, Traffic, and Schedule

Construction Workforce and Equipment

The construction workforce would vary depending on the phase of construction, but the peak workforce on-site at any given time would be approximately 20 workers. **Table 2-8**, ***Plainfield Substation Construction Equipment and Workforce***, describes the anticipated types of construction equipment that would be used, with corresponding quantities, fuel types, and duration of use.

TABLE 2-8
PLAINFIELD SUBSTATION CONSTRUCTION EQUIPMENT AND WORKFORCE

Construction Phase/ Equipment Description	Equipment Quantity	Estimated Workforce	Estimated Month Start Date	Estimated Month End Date	Duration of Use (Weeks)	Probable Fuel Type
Substation Civil Construction—Yard Expansion						
Crew Cab Truck	3	20	January	June	26	Gas
Forklift	2		January	June	26	Diesel
Concrete Truck	2		April	June	13	Diesel
D-3 Bulldozer	1		January	March	13	Diesel
Gradall	1		January	June	26	Diesel
Water Truck	2		January	June	26	Diesel
Compactor	2		January	April	20	Diesel
Road Grader, Six-Wheel	1		February	April	13	Diesel
Elevating Scraper	1		January	May	21	Diesel
Large Compactor Roller	1		February	May	13	Diesel
2-Ton Flatbed Truck	2		January	June	26	Diesel
Backhoe	1		January	June	13	Diesel
Portable Generator	2		January	June	26	Diesel
Large Excavator Drill	1		January	May	13	Diesel
Loader	2		February	June	8	Diesel
Mobile Trailers	4		January	June	26	Electric
Tubular Steel Pole Delivery						
40-Ton Crane	1	4	April	October	1	Diesel
Tractor Trailer	2		April	October	1	Diesel
Material Delivery						
Crane with 120-Foot Boom	1	4	April	October	1	Diesel
Forklift	1		April	October	1	Diesel
Conductor Removal/Installation						
Tensioner Attached to Line Truck	1	6	April	October	4	N/A
40-Ton Crane	1		April	October	4	Diesel
Bucket Truck	2		April	October	4	Diesel
Boom Truck	2		April	October	4	Diesel
Crew Cab Truck	2		April	October	4	Gas
Foreman Pickup Truck	2		April	October	4	Gas

TABLE 2-8
PLAINFIELD SUBSTATION CONSTRUCTION EQUIPMENT AND WORKFORCE

Construction Phase/ Equipment Description	Equipment Quantity	Estimated Workforce	Estimated Month Start Date	Estimated Month End Date	Duration of Use (Weeks)	Probable Fuel Type
Forklift	1		April	October	4	Diesel
Hardline Puller	2		April	October	4	N/A
Tubular Steel Pole Foundations						
Construction Digger	1	6	April	October	3	Diesel
Backhoe	1		April	October	3	Diesel
Dump Truck	1		April	October	3	Diesel
Foreman Pickup Truck	1		April	October	3	Gas
Crew Cab Truck	1		April	October	3	Gas
Concrete Truck	1		April	October	3	Diesel
Concrete Pump	1		April	October	3	Diesel
Tubular Steel Pole Installation (Substation)						
40-Ton Crane	1	6	April	October	4	Diesel
Bucket Truck	2		April	October	4	Diesel
Foreman Pickup Truck	2		April	October	4	Gas
Crew Cab Truck	2		April	October	4	Gas
Substation Construction and Stormwater Pond (Substation)						
Crew Cab Truck	3	14	July	May	65	Gas
Forklift	2		July	May	50	Diesel
Concrete Truck	2		July	May	13	Diesel
D-3 Bulldozer	1		July	May	20	Diesel
Gradall	1		July	September	65	Diesel
Water Truck	2		July	June	55	Diesel
Compactor	2		July	May	50	Diesel
Road Grader, Six-Wheel	1		July	May	25	Diesel
Elevating Scraper	1		July	May	25	Diesel
Large Compactor Roller	1		July	May	50	Diesel
2-Ton Flatbed Truck	2		July	May	65	Diesel
Backhoe	1		July	May	13	Diesel
Portable Generator	2		July	May	55	Diesel
Large Excavator Drill	1		July	May	13	Diesel
Loader	2		July	June	55	Diesel
Mobile Trailers	4		January	September	65	Electric
Aerial Manlifts (60 Feet)	2		July	August	60	Diesel
30-Ton Crane	1		July	August	60	Diesel
Small Compactors	2		July	August	60	Diesel
Mini Excavators	2		July	August	60	Diesel

TABLE 2-8
PLAINFIELD SUBSTATION CONSTRUCTION EQUIPMENT AND WORKFORCE

Construction Phase/ Equipment Description	Equipment Quantity	Estimated Workforce	Estimated Month Start Date	Estimated Month End Date	Duration of Use (Weeks)	Probable Fuel Type
Substation Construction and Stormwater Pond (Substation)						
Crew Cab Truck	3	9	October	December	13	Gas
D-3 Bulldozer	1		October	December	4	Diesel
Water Truck	2		October	December	10	Diesel
Compactor	2		October	December	8	Diesel
Road Grader, Six-Wheel	1		October	December	4	Diesel
Elevating Scraper	1		October	December	6	Diesel
Large Compactor Roller	1		October	December	4	Diesel
2-Ton Flatbed Truck	2		October	December	13	Diesel
Backhoe	1		October	December	4	Diesel
Loader	2		October	December	4	Diesel
Mobile Trailers	4		October	December	13	Electric

NOTES: N/A = not applicable

a. The California Emission Estimator Model used conservative default values for horsepower based on California Air Resources Board modeling; therefore, horsepower for each piece of equipment is not included.

SOURCE: PG&E 2024b

Construction Traffic

Construction equipment and workers would access the site along CR 27 via State Route 113 and the existing network of public roadways in the Project vicinity. The peak vehicle trips would occur during the civil construction phase when there would be export and import of fill materials for the construction of the substation pad. The peak vehicle trips would be a maximum of approximately 50 trips per day. Because truck traffic would enter from and exit to a County-maintained roadway, the Applicant would comply with APM TRANS-1 (see Table 2-10). As outlined in APM TRANS-1, the Applicant would obtain applicable encroachment and transportation permits from California Department of Transportation and local jurisdictions. Jurisdictional and permit requirements may require signage and/or flaggers to maintain public safety and reduce potential disruptions to traffic flow during construction. If construction activities would require lane or road closure of CR 27, the Applicant would notify local emergency service providers at least 24 hours before any full or partial road closure. The Applicant would provide emergency service providers serving the Project area with the anticipated date, time, and duration of the lane or road closure and appropriate emergency contact information.

A traffic control plan is not required, but speed-reducing signage would be displayed on both sides of CR 27 during TSP construction activities on the north side of CR 27. Flaggers would be used as needed when trucks enter or exit the substation site. Flaggers may also be used during conductor replacement and culvert installation.

Construction Schedule

The Project is estimated to take approximately 30 months to complete, without any unforeseen or unpredictable factors such as bad weather. Construction would begin in January 2026, with a current in-

service date of July 2027, and a target project completion in March 2028 (PG&E 2024b). However, if permits are obtained in time, construction may commence in late 2025. The substation construction, TSP installation, and conductor replacement would span approximately 18–21 months of construction activity. Approximately 6-8 months would be needed for yard expansion and equipment delivery logistics starting in early 2026, and approximately 5 months would be needed for demobilization, power load considerations, commissioning and testing, and other factors after substation construction. **Table 2-9**, ***Plainfield Substation Upgrade Construction Schedule***, summarizes the Project construction schedule. Please note that construction phases shown in Table 2-9 may overlap.

TABLE 2-9
PLAINFIELD SUBSTATION UPGRADE CONSTRUCTION SCHEDULE

Construction Phase	Start Date	End Date	Anticipated Length
Civil Construction (Yard Expansion)	January 2026	June 2026	6 months
TSP Installation and Conductor Replacement	April 2026	October 2026	7 months
Substation Construction	July 2026	September 2027	14 months
Commissioning and Testing	August 2027	September 2027	2 months
Final Grading, Demobilization, Site Restoration	October 2027	December 2027	3 months

NOTE: The construction schedule above does not factor in unknowns such as gaps in construction equipment delivery, or weather events, that may extend the schedule another 2-3 months, resulting in the target completion date of March 2028.

SOURCE: PG&E 2024b

Construction activities at the Plainfield Substation site would generally be scheduled to occur during daytime hours (7:00 a.m. to 5:00 p.m.), 5 days per week (Monday through Friday). Work outside those hours is not anticipated to be necessary, but weekend work may occur to meet clearances and Project schedules. On infrequent occasions, construction activities could occur at night to avoid or reduce schedule delays, to complete construction activities to accommodate the schedule for system outages, or to address emergencies. Although night work is not anticipated, light banks would be used if construction activities need to be scheduled outside of daylight hours.

2.5.2.16 Post-construction

Commissioning and Testing

Commissioning and testing would begin upon completion of the substation upgrade. All existing and newly installed equipment would undergo testing to confirm compatibility and stability within the upgraded system. To minimize electric service disruptions, the process of de-energizing and re-energizing the existing lines may be conducted at night when demand is lower. The commissioning and testing team would consist of approximately eight staff members using handheld tools.

Landscaping

No landscaping is proposed.

Demobilization and Site Restoration

Demobilization

After the completion of construction, the process of demobilization would begin. First, all equipment not needed for the remaining testing and revegetation would be removed. Next, all temporarily disturbed work areas would be restored to their approximate preconstruction conditions as described below.

Site Restoration

The Applicant would restore all areas temporarily disturbed by the Project construction activities to the areas' approximate preconstruction conditions. All areas would be assessed carefully to ensure that all residual construction debris and waste is removed and transported off-site to an appropriate disposal facility. Project waste materials that are routinely recycled would be recycled in an appropriate fashion at an approved disposal facility. The Applicant would conduct a final inspection to ensure that cleanup activities are completed successfully.

Revegetation activities would be conducted in accordance with the SWPPP and the proposed APMs identified in Table 2-10 in Section 2.5.5, *Applicant-Proposed Measures*. Restoration could include recontouring, reseeding, and planting replacement vegetation, as appropriate. Additional restoration opportunities could include preparing the site for future utility uses. Erosion control measures may be required and would also be implemented in accordance with the SWPPP and proposed APMs.

2.5.3 Operation and Maintenance

2.5.3.1 System Controls and Operation Staff

The Applicant would continue to monitor the substation remotely from its Grid Control Center in Vacaville, California. A dedicated phone line communicates alarms from the substation to the control center. Should an emergency alarm be triggered, the Applicant would dispatch staff from a local maintenance center to the site.

2.5.3.2 Inspection Programs

Routine inspections of equipment, electrical lines, support systems, and controls ensure safe and efficient operation of the substation. Routine inspections would remain unchanged from current procedures. The expanded substation would be remotely monitored, with O&M personnel performing routine monthly inspections. Parking for inspections and O&M would be within the expanded substation site or along the access road leading to the substation.

Power line inspections would remain unchanged. Transmission line inspections would be conducted annually, alternating between ground inspections and aerial surveys. Because there are no trees on-site, tree trimming would not be necessary. If tree trimming is required, it would be conducted in compliance with CPUC General Order 95.

2.5.3.3 Operation and Maintenance Programs

The existing substation maintenance program would continue to be implemented for the upgraded substation, adhering to a schedule that would avoid interruptions and outages. In addition to regular maintenance activities, facilities may occasionally incur damage caused by inclement weather, vandalism,

or accidents necessitating immediate repair. O&M personnel would restore and replace damaged equipment promptly in an emergency.

Maintenance activities at the substation would include general inspection and cleaning of various mechanisms, such as transformers, motors, circuit breakers, batteries, and transmission lines. These inspections would include assessing equipment conditions, testing and calibration, and monitoring oil and installation liquid levels. Infrared scanning would be used to identify potential electrical equipment issues, including faulty connections, poor contact, phase imbalances, and overload conditions.

Routine maintenance would be conducted to address conditions identified during inspections or other situations requiring immediate action. If the facility remains in operation beyond the estimated 75-year lifespan, the Applicant would comply with the applicable utility procedure standards and regulatory requirements. Periodic maintenance may be needed for the graveled access road located outside the substation fence but within PG&E's property. Maintenance equipment could include front loaders, pickup trucks with trailers, a dump truck, or other similar equipment.

2.5.3.4 Security

As discussed in Section 2.5.1.6, *Security Fencing and Retaining Wall*, the expanded substation fencing would be approximately 9 feet tall, consisting of an 8-foot-tall chain-link fence topped with 1 foot of barbed wire. A concrete retaining wall would be constructed along the west side of the substation. Security lighting would consist of the existing lighting structures adjacent to CR 27 and new LED lights in the upgraded 60 kV bus and shunt capacitor bank area. The expanded substation would be remotely monitored and would not require permanent staff on-site.

2.5.3.5 Water Use

The Project would not require water sources for O&M activities because the Plainfield Substation would not use water for cooling or other operational purposes and would be unstaffed. Drinking water would be brought in by the Applicant's personnel during O&M activities.

2.5.3.6 Vegetation Management

The Plainfield Substation is not located within a fire hazard area, and the Project would not be required to comply with fire break clearance requirements (Public Resources Code Section 4292 and California Code of Regulations Title 14, Section 1254). The existing substation facility is permanently disturbed and devoid of vegetation. Periodic weed control may be needed within the substation to prevent weeds from taking root.

2.5.3.7 Future Expansions and Equipment Life Spans

The Applicant's expanded substation and property can support potential future demand with an ultimate buildout of three 115/12 kV 45 megavolt ampere transformers.

2.5.4 Decommissioning

The Applicant would not decommission the Plainfield Substation in the foreseeable future in response to an expected continued need for electricity. If the Applicant were to decide to decommission the facility, the Applicant would prepare a removal and restoration plan before removal or abandonment of the

facility, which would be subject to CPUC review and approval. The plan would address the removal of the Plainfield Substation facility, any requirements for restoration and revegetation, and the potential preparation of the property for future utility uses. After construction, temporarily disturbed areas would be returned as closely as possible to their original contours and allowed to revegetate naturally.

2.5.5 Applicant-Proposed Measures

The Applicant proposes to implement certain Project design features referred to as APMs as part of Project construction, operation and maintenance. The APMs, listed in **Table 2-10**, are considered part of the Project for the purposes of this CEQA analysis. These Project features are also discussed in the context of the relevant environmental issue area analyses presented in Chapter 3, *Environmental Checklist and Discussion*.

TABLE 2-10
APPLICANT-PROPOSED MEASURES

APM Number	Description
APM AES-1	**Construction Site.** Construction activities will be kept as clean and inconspicuous as practical. All Project sites will be maintained in a clean and orderly state. Construction staging areas will be sited away from public view where possible. Upon completion of Project construction, Project staging and temporary work areas will be returned to approximate pre-Project conditions, including regrading of the site and revegetation or repaving of disturbed areas similar to pre-existing contours and conditions.
APM AES-2	**New Source of Substantial Light or Glare Avoidance.** New security lighting at the substation will be directed on-site to reduce potential visibility from offsite locations. Nighttime lighting will be directed away from residential areas and have shields to prevent light spillover effects.
APM AES-3	**Use of Galvanized Finish on Tubular Steel Poles.** Structures and equipment at the expanded substation will generally have a non-reflective finish and neutral gray color.
APM AES-4	**Security Fence.** Security fencing at the substation will be galvanized chain link fence with a non-reflective finish.
AGR-1	**Landowner Coordination.** PG&E will coordinate with the landowner in advance of construction activities to minimize impacts on agricultural operations.
APM AIR-1	**Dust Control During Construction.** • Water or cover all exposed surfaces with the potential of dust-generating with coarse rock to reduce the potential for airborne dust from leaving the site; • Limit the simultaneous occurrence of more than two ground disturbing construction phases on the same area at any one time. Phase activities to reduce the amount of disturbed surfaces at any one time; • Cover all haul trucks entering/leaving the site and trim their loads as necessary; • Use wet power vacuum street sweepers to sweep all paved access roads, parking areas, staging areas, and public roads adjacent to Project sites on a daily basis (at minimum) during construction. The use of dry power sweeping is prohibited; • Wash off all trucks and equipment, including their tires, prior to leaving Project sites; • Apply gravel or non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at Project sites; • Water and/or cover soil stockpiles daily; • Limit all vehicle speeds to fifteen (15) miles per hour (mph) or less on unpaved areas; • Implement dust monitoring in compliance with the standards of the local air district; and • Halt construction during any periods when wind speeds are in excess of 50 mph.
APM AIR-2	**Construction Equipment Engines**. Equipment used during construction will abide by the CARB requirement that only Tier 4 Final or cleaner engines may be added to large and medium fleets starting January 1, 2024.
APM BIO-1	**Work area minimization**. The number of access routes, staging areas, and total area of the work sites will be kept to the minimum necessary.
APM BIO-2	**Erosion and sediment control measures**. A Stormwater Pollution Prevention Plan (SWPPP) will be implemented to ensure effective erosion and sediment control measures will be in place at all times during construction.

TABLE 2-10
APPLICANT-PROPOSED MEASURES

APM Number	Description
APM BIO-3	**Weed management.** To prevent the spread of noxious weeds, only equipment which has been washed and is free of caked on mud, dirt, and other debris, which could house plant seeds, will be allowed in the Project area.
APM BIO-4	**Avoidance of impacts to wildlife and natural habitats**. All work will be done in a manner that minimizes disturbance to wildlife and habitat.
APM BIO-5	**Litter and trash management**. All food waste and associated containers will be disposed of in closed lid containers.
APM BIO-6	**Maintenance and refueling.** No vehicle maintenance or refueling will occur within 100 feet of any agricultural or roadside ditches.
APM BIO-7	**Spill prevention and cleanup**. Proper spill prevention and cleanup equipment will be readily available.
APM BIO-8	**Route limitations.** Vehicles will remain on designated access roads and within designated worksites.
APM BIO-9	**Pets and firearms.** No pets or firearms are permitted within the Project area.
APM BIO-10	**Vehicle speed limits.** Construction crews will abide by all county road speed limits.
APM BIO-11	**Backfilling**. Prior to backfilling or placement of structures, all excavation sites (e.g., holes excavated for pole butts, trenches, etc.) will be inspected to ensure no small vertebrates have been entrapped. All excavations with a potential for entrapment of wildlife will be backfilled or fully covered at the end of the workday. Alternatively, holes or trenches will include one or more escape ramps constructed of earth fill or wooden planks no less than 10 inches wide and reaching to bottom of trench at the close of each working day.
APM BIO-12	**Nesting Bird Impact Avoidance and Protection.** If construction work is scheduled during the nesting season (1 February through 31 August), nest detection surveys will correspond with a standard buffer for individual species in accordance with the species-specific buffers set forth in Appendix I of the PEA and will occur within 15 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 15 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 I 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 I. The acclimation of nesting pairs 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-13	**Avoidance and minimization of potential impacts on Swainson's hawk and white-tailed kite**. If construction activities are scheduled to occur during the nesting season (1 February to 31 August), a preconstruction survey for nesting Swainson's hawk and/or white-tailed kite will be conducted within 0.5 mile of the Project area by a qualified biologist. If active nests are found, a qualified biologist will designate an appropriate buffer between construction activities and the nest to avoid disturbance to the nesting. A qualified biologist will monitor the active nest(s) to confirm that activities associated with the Project are not disturbing or disrupting nesting or breeding activities and adjust the buffer distance as necessary. Work within an established buffer will not proceed until the nestlings have fledged or the nest becomes inactive.
APM BIO-14	**Biological Resources Worker Environmental Awareness Program (WEAP**). The Applicant shall develop a WEAP. Prior to the start of construction, all construction crew members and contractors shall be required to attend the WEAP training presented by a qualified biologist. All construction crew members and contractors who attend the training shall sign a form indicating that they attended the training and understood the information. Follow-up training shall be conducted as needed; new workers shall attend WEAP training prior to beginning at the work site. The WEAP training shall include a review of the special status species and other sensitive resources (e.g., nesting birds) that could exist in the Project area, the locations where sensitive biological resources do or may occur, the limits of the work area, applicable laws and regulations, penalties for non-compliance, and any APMs to be implemented for avoidance of these sensitive resources. Additionally, personnel shall be trained for situations where it is necessary to contact a qualified biologist (e.g., should any sensitive biological resources such as an active nest be found during construction). If sensitive resources are found, the qualified biologist shall provide guidelines for the personnel to avoid impacts on them. All WEAP participants shall receive a brochure that outlines all this information including contact information for the appropriate environmental personnel.

TABLE 2-10
APPLICANT-PROPOSED MEASURES

APM Number	Description
APM BIO-15	**Protection of Drainage Features (MRHCP Wetland-2).** A buffer of 50 feet will be established around any drainage features, including ditches. If maintaining the buffer is not practicable because the work sites are within any part of the buffered area, the field crew will implement other measures as prescribed by the biologist to minimize impacts to potential habitat. These measures may include flagging access, requiring foot access, restricting work until the dry season, or requiring a biological monitor during the activity. Activities must maintain the hydrology necessary to support the drainage features (inclusive of downstream). If water is present, the area will be dewatered prior to start of work within the ditch. If any temporary dam or other artificial obstruction is constructed within ditches where work is to occur, the temporary dam or other artificial obstruction will only be built from clean materials such as sandbags, gravel bags, water dams, or clean/washed gravel that will cause little or no siltation. Flow will be pumped around the work site with the use of hoses. All temporarily affected areas within the channels of ditches where work will occur will be restored to pre-construction contours upon completion of construction activities.
APM BIO-16	**Multiple Region Habitat Conservation Plan (MRHCP) Measures.** FP-01 Conduct annual training on habitat conservation plan requirements for employees and contractors performing covered activities in the Plan Area that are applicable to their job duties and work. Tailboard and site-specific training will also be conducted prior to commencing work. FP-02 Park vehicles and equipment on pavement, existing roads, or other disturbed or designated areas (barren, gravel, compacted dirt). FP-03 Use existing access and ROW roads. Minimize the development of new access and ROW roads, including clearing and blading for temporary vehicle access in areas of natural vegetation. FP-04 Route off-road access paths and site work sites to minimize impacts on plants, shrubs, and trees, small mammal burrows, and unique natural features (e.g., rock outcrops). FP-05 Notify conservation landowners at least 2 business days prior to conducting covered activities on protected lands (state- or federally owned wildlife areas, ecological reserves, or conservation areas); more notice will be provided if practicable or if required by other permits. If the work is an emergency, as defined in PG&E's Utility Procedure ENV-8003P-01, PG&E will notify the conservation landowner within 48 hours after initiating emergency work. Although this notification is intended only to inform conservation landowner, PG&E will attempt to work with the conservation landowner to address landowner concerns. FP-06 Minimize potential for covered species to become trapped, injured, or killed in pipes, culverts, or under materials or equipment. Inspect pipes and culverts wide enough to be entered by a covered species that could inhabit the area where pipes are stored for wildlife species prior to moving pipes and culverts. Contact a biologist if a covered species or other federally listed species is suspected or discovered. FP-07 Vehicle speeds on unpaved roads will not exceed 15 miles per hour. FP-08 Prohibit trash dumping, firearms, open fires (such as barbecues), hunting, and pets (except for safety in remote locations) at work sites. FP-09 In designated State Responsibility Areas, equip all motorized equipment with federally or state-approved spark arrestors. Ensure a backpack pump filled with water and a shovel and fire-resistant mats and/or windscreens is onsite during welding. During fire "red flag" conditions as determined by the California Department of Forestry and Fire Protection, prohibit welding. Each fuel truck will carry a large fire extinguisher with a minimum rating of 40 B:C. Clear parking and storage areas of all flammable materials. FP-10 Minimize the covered activity footprint and minimize the amount of time spent at a work site to reduce the potential for take of species. FP-11 Utilize standard erosion and sediment control BMPs (pursuant to the most current version of PG&E's *Stormwater Field Manual for Construction Best Management Practices*) to prevent construction site runoff into waterways. FP-12 Stockpile soil within established work site boundaries and locate stockpiles so as not to enter water bodies, stormwater inlets, other standing bodies of water. Cover stockpiled soil prior to precipitation events. FP-13 Fit open trenches or steep-walled holes with escape ramps of plywood boards or sloped earthen ramps at each end if left open overnight. Field crews will search open trenches or steep-walled holes every morning prior to initiating daily activities to ensure wildlife is not trapped. Field crews will not handle covered species. If any covered wildlife species is found, work will stop and a biologist will be notified. A biologist with appropriate take permits will relocate the species to adjacent habitat or the species will be allowed to naturally disperse, as determined by a biologist. FP-14 If the covered activity disturbs 0.1 acre or more of habitat for a covered species in grasslands, the field crew will revegetate the area with a commercial "weed free" seed mix.

TABLE 2-10
APPLICANT-PROPOSED MEASURES

APM Number	Description
	FP-15 Prohibit vehicular and equipment refueling within 250 feet of the edge of wetlands, streams, or waterways. If refueling must be conducted closer to wetlands, construct a secondary containment area subject to review by an environmental field specialist and/or biologist. Maintain spill prevention and cleanup equipment in refueling areas. FP-16 Maintain a buffer of 250 feet from the edge of wetlands, ponds, or riparian areas. If maintaining the buffer is not practicable because the covered activity footprint is within the buffered area, other measures as prescribed by the biologist or the HCP administrator to minimize impacts such as flagging access routes or paths, requiring foot access, restricting work until the dry season, or requiring a biological monitor during the activity. FP-17 Directionally fall trees away from an exclusion zone if an exclusion zone has been defined. If this is not practicable, remove the tree in sections. Avoid damage to adjacent trees to the extent practicable. Avoid removal of snags and conifers with basal hollows, crown deformities, and/or limbs more than 6 inches in diameter. FP-18 Nests with eggs and/or chicks will be avoided: contact a biologist or the Avian Protection Program Manager for further guidance. Work will be stopped until the crew can obtain clarification from a biologist or the Avian Protection Program Manager on how to proceed. FP-19 Inspect and maintain exclusion fencing installed to exclude species from work areas.
APM CUL-1	**Inadvertent Discoveries.** If cultural resources are encountered during construction activity, PG&E and/or its contractors shall halt work in the immediate vicinity of the find. The find shall be evaluated by a qualified archaeologist before construction activity may resume. If the qualified archaeologist determines that the find may be significant and if avoidance of the find is determined to be infeasible, the archaeologist shall notify the lead agencies and shall follow approved procedures established for the treatment and mitigation of unanticipated discoveries in consultation with the lead agency. PG&E shall be responsible for the resultant mitigation costs.
APM CUL-2	**Human Remains.** If human remains are discovered during construction or maintenance activities, all work shall be diverted from the area of the discovery and the CPUC shall be informed immediately. The Applicant shall contact the County Coroner to determine whether or not the remains are Native American. If the remains are determined to be Native American, the Coroner will contact the NAHC. The NAHC will then identify the person or persons it believes to be the most likely descendant of the deceased Native American, who in turn would make recommendations for the appropriate means of treating the human remains and any associated funerary objects.
APM CUL-3	**Survey New or Modified Work Areas.** PG&E will perform cultural resources surveys prior to construction for any Project areas not yet surveyed (e.g., new or modified staging areas, or other work areas). Resources discovered during the surveys would be subject to CUL-1.
APM CUL-4	**Worker Education Training.** The following procedures will be implemented prior to commencement of any Project-related construction activities in order to ensure that appropriate steps/actions are taken in the event that there is an inadvertent discovery of a tribal or cultural resource: • All PG&E, contractor, and subcontractor Project personnel will receive training regarding: – appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental laws and regulations; – the potential for exposing subsurface cultural resources; – the potential for uncovering Tribal Cultural Resources; – how to recognize possible buried cultural resources; and, – actions to be taken in the event there is an inadvertent discovery as outlined in CUL-1 and CUL-2.
APM GS-1	• **Minimization of Construction above Liquefiable Soils or in Soft or Loose Soils**. PG&E will conduct geotechnical investigations prior to construction to identify liquefiable, soft, or loose soils, and implement design and civil engineering standards in accordance with the CBC and the CPUC's General Order 95.
APM GS-2	**Unanticipated Discovery of Paleontological Resources.** If paleontological resources are discovered during construction activities, the following procedures will be followed: • Work will be stopped immediately within 100 feet of the discovery. • The designated Project inspector, PG&E Cultural Resource Specialist (CRS), and the CPUC will be contacted immediately. • The site will be protected from further impacts, including looting, erosion, or other human or natural damage. • PG&E's CRS will arrange for a Principal Paleontologist to evaluate the discovery. If the discovery is determined to be significant, PG&E will consult with the CPUC and implement appropriate measures to protect and document the paleontological resource. Examples of such measures include establishing

TABLE 2-10
APPLICANT-PROPOSED MEASURES

APM Number	Description
	recovery standards, preparing specimens for identification and preservation, and securing a curation agreement from the appropriate agency. • Work will not resume within 100 feet of the find until approval by the paleontologist, PG&E CRS, and the CPUC.
APM GHG-1	**Greenhouse Gas Emissions Reduction During Construction.** • If suitable park-and-ride facilities are available near construction workers' residences, they shall be encouraged to carpool to the job site; • Maintain on-road and off-road vehicle tire pressures to manufacturer specifications. Tires will be checked and re-inflated at regular intervals; • Recycle demolition debris for reuse to the extent feasible; • Use line power instead of diesel generators at all construction sites where line power is available; and • Maintain construction equipment in properly working condition per PG&E standards.
APM GHG-2	**Minimize GHG Emissions.** • Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time will depend on the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warm-up times following start-up that limit their availability for use following start-up. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles may require more 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. Construction supervisors will include briefings to crews on vehicle use as part of pre-construction conferences; these briefings will include discussion of a "common sense" approach to vehicle use. • 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 50 hp or larger and manufactured in the year 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.
APM GHG-3	**Minimize SF6 Emissions.** • Incorporate Plainfield Substation's new SF_6 circuit breakers into PG&E's system-wide SF_6 emission reduction program. Since 1998, PG&E has implemented a programmatic plan to inventory, track, and recycle SF_6 inputs, and inventory and monitor system-wide SF_6 leakage rates to facilitate timely replacement of leaking breakers. PG&E has also improved its leak detection procedures and increased awareness of SF_6 issues within the company. X-ray technology is now used to inspect internal circuit breaker components to eliminate dismantling of breakers, reducing SF_6 handling and accidental releases. As an active member of the EPA's SF_6 Emission Reduction Partnership for Electrical Power Systems, PG&E has remained focused on reducing SF_6 emissions from its transmission and distribution operations. • Require that the new SF_6 breakers at Plainfield Substation have a manufacturer's guaranteed maximum leakage rate of 0.5 percent per year or less for SF_6. • Maintain substation breakers in accordance with PG&E's maintenance standards. • Comply with CARB's Early Action Measures as these policies become effective.
APM HAZ-1	**Emergency Spill Response Equipment and Training.** Emergency spill response and cleanup kits will be available on site as well as at the Davis PG&E Service Yard Headquarters, and readily available for the cleanup of an accidental spill. Construction crews will be trained in safe handling and cleanup responsibilities prior to the initiation of construction.
APM HAZ-2	**Shock Hazard.** All authorized personnel working on site will be trained according to PG&E standards during either construction or maintenance and operation. To minimize potential exposure of the public to electric shock hazards, an 8-foot-tall chain link fence topped with 1 foot of barbed wire will extend around the perimeter of the expanded substation, thus restricting site access. Warning signs will be posted to alert people of potential electrical hazards. All electric power lines will be designed in accordance with CPUC General Order 95 Guidelines for safe ground clearances established to protect the public from electric shock

TABLE 2-10
APPLICANT-PROPOSED MEASURES

APM Number	Description
APM HAZ-3	**Update Spill Prevention, Control, and Countermeasure (SPCC) Plan and Hazardous Materials Business Plan (HMBP).** PG&E will update the existing SPCC Plan and HMBP for Plainfield Substation to include all new equipment and on-site hazardous materials associated with the substation expansion, and to address containment from an accidental spill. The substation will be equipped with a retention basin that meets SPCC Guidelines (40 Code of Federal Regulations 112). The retention basin will be sufficiently sized to accommodate stormwater runoff from the substation yard. The substation will also be equipped with lead-acid batteries to provide backup power for monitoring, alarm, protective relaying, instrumentation and control, and emergency lighting during power outages. Containment will be constructed around and under the battery racks, and the SPCC will address containment from a battery leak.
APM HAZ-4	**Soil Testing and Disposal.** In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are removed during site grading activities or excavation activities, the excavated soil will be tested, and if contaminated above hazardous waste levels, 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.
APM HYDRO-1	**Stormwater Pollution Prevention Plan.** Because the Project involves more than an acre of soil disturbance, PG&E will prepare and implement a SWPPP to help stabilize disturbed areas and reduce erosion and sedimentation. A monitoring program will also be established to confirm that the prescribed BMPs are followed during Project construction. A qualified SWPPP practitioner will oversee the implementation of the SWPPP and associated BMPs. The following measures are generally drawn from the permit and will be included in the SWPPP prepared for the construction of the Project: • All BMPs will be on site and ready for installation before the start of construction activities; • BMPs will be developed to prevent the acceleration of natural erosion and sedimentation rates, such as the use of silt fence and wattles, and to limit track out of mud and sediment into roadways during construction; and • Prior to conducting clearing activities during the wet season and before the onset of winter rains or any anticipated storm events, erosion-control measures will be installed. Temporary measures such as silt fences or wattles, which are intended to minimize sediment transport from temporarily disturbed areas, will remain in place until disturbed areas have stabilized.
APM TRANS-1	**Traffic Management.** PG&E will obtain necessary transportation and encroachment permits from Caltrans and the local jurisdiction, as required, including those related to the transport of oversized loads and certain materials, and will comply with permit requirements designed to prevent excessive congestion or traffic hazards during construction. Construction activities will follow best management practices and local jurisdictional encroachment permit requirements, which may include traffic controls such as signs, cones, and flaggers. At least 24 hours prior to implementing a lane or road closure of CR 27, PG&E will coordinate with applicable emergency service providers in the Project vicinity. PG&E will provide information regarding the anticipated date, time, and duration of the lane or road closure, and a contact number.
APM TCR-1	**Undiscovered Potential Tribal Cultural Resources.** The following procedure shall be employed (after stopping work and following the procedure for determining eligibility in APM CUL-1) 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: • The PG&E Cultural Resource Specialist 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. • The PG&E Cultural Resource Specialist 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.
APM FIRE-1	**Construction Fire Prevention Plan.** PG&E will implement the following fire prevention practices at active construction sites: • During Red Flag Warning events, as issued daily by the National Weather Service, all construction activities will cease, with an exception for transmission line testing, repairs, unfinished work, or other specific activities which may be allowed if the facility/equipment poses a greater fire risk if left in its current state. • All construction and maintenance crews and inspectors will be provided with radio and cellular telephone access that is operational in all work areas and access routes to allow for immediate reporting of fires. Communication pathways and equipment will be tested and confirmed operational each day prior to initiating construction activities at each work site. All fires will be reported to the fire agencies with jurisdiction in the area immediately upon discovery of the ignition.

TABLE 2-10
APPLICANT-PROPOSED MEASURES

APM Number	Description
	• Construction and maintenance personnel will be trained in fire-safe actions, initial attack firefighting, and fire reporting. Construction personnel will be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats. • All construction and maintenance personnel will carry a laminated card and be provided a hard hat sticker that lists pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on laminated contact cards and hard hat stickers will be updated as needed and redistributed to all construction personnel prior to the day the information change goes into effect. • Construction and maintenance personnel will have fire suppression equipment on all construction vehicles and will be required to park vehicles away from dry vegetation. PG&E will coordinate with applicable local fire departments prior to construction activities to determine the appropriate amounts of fire equipment to be carried on vehicles and, should a fire occur, to coordinate fire suppression activities. • Water tanks and/or water trucks will be sited or available at active Project sites for fire protection during construction.

NOTES: APM = Applicant-Proposed Measure; BMP = best management practice; CPUC = California Public Utilities Commission; CRS = Cultural Resource Specialist; HMBP = Hazardous Materials Business Plan; MRHCP = Multiple Region Habitat Conservation Plan; PEA = Proponent's Environmental Assessment; PG&E = Pacific Gas and Electric Company; SF_6 = sulfur hexafluoride; SPCCP = Spill Prevention, Control, and Countermeasure Plan; SWPPP = stormwater pollution prevention plan; WEAP = Worker Environmental Awareness Program

SOURCE: Data provided by Pacific Gas and Electric Company in 2024.

2.5.6 Land Ownership, Right-of-Way Requirements, and Easement Applications

The existing substation is located on land owned by the Applicant. To accommodate the proposed expansion of the substation, the Applicant would purchase additional land to the east and south. The Nicolaus-Plainfield 60 kV and Vaca-Plainfield 60 kV circuits are situated on transmission structures within an easement adjacent to the south and east sides of the substation. The easement ranges from 30 to 50 feet wide. In addition, a 40-foot-wide easement extends north of the substation.

To facilitate the substation expansion south of CR 27, the Applicant would acquire the necessary rights for the additional land by purchasing it from the existing landowner. This would include approximately 0.35 acre to be added to the existing easement on Assessor's Parcel Number 041-030-10, located on the north side of CR 27. Additionally, an existing easement with Yolo County for crossing CR 27 would be modified to accommodate the relocation of the Nicolaus-Plainfield and Vaca-Plainfield power lines to new single-circuit transmission structures, spaced approximately 145 feet apart within the substation yard, replacing the existing double-circuit structure. Such issues would be addressed through subsequent negotiations or condemnation proceedings as appropriate, following the CPUC's decision on the application.

There are no identified development restrictions in the areas designated for the substation expansion or the easements that require modification. All construction staging and laydown areas would be confined within the expanded substation perimeter.

2.5.7 Summary of Electric and Magnetic Fields

2.5.7.1 Introduction

Extremely low-frequency electric and magnetic fields (EMFs) include alternating current (i.e., AC) fields and other electromagnetic, non-ionizing radiation from 1 hertz to 300 hertz. Power lines, such as electrical wiring and electrical equipment, produce extremely low-frequency fields at 60 hertz (OSHA 2024). This CEQA document does not consider EMFs in the context of the CEQA analysis of potential environmental impacts, for two reasons: (1) There is no agreement among scientists that EMFs create a potential health risk, and (2) there are no defined or adopted CEQA standards for defining health risk from EMFs.

On January 15, 1991, the CPUC initiated an investigation to consider its role in mitigating the health effects, if any, of EMFs from utility facilities and power lines. The CPUC convened a working group of interested parties, the California EMF Consensus Group, to advise on this issue through an open fact-finding process resulting in a report that incorporated public concerns. The group's recommendations were filed with the CPUC in March 1992. Based on the work of the California EMF Consensus Group, written testimony, and evidentiary hearings, the CPUC's decision (93-11-013) was issued on November 2, 1993, to address public concern about possible EMF health effects from electric utility facilities. In August 2004, the CPUC opened an Order Instituting Rulemaking to update the Commission's policies and procedures related to EMFs emanating from regulated utility facilities. The final decision, issued in CPUC Decision 06-01-042, included the following conclusions and findings:

> *We find that the body of scientific evidence continues to evolve. However, it is recognized that public concern and scientific uncertainty remain regarding the potential health effects of EMF exposure. We do not find it appropriate to adopt any specific numerical standard in association with EMF until we have a firm scientific basis for adopting any particular value.*

This continues to be the position of the CPUC regarding standards for EMF exposure. The State of California has not determined that any risk would merit adopting any specific limits or regulations regarding EMF levels from electric power facilities. Presently, there are no applicable federal, state, or local regulations related to EMF levels from electric power lines or related facilities, such as the Project. However, CPUC Decision 06-01-042 required utilities to incorporate "low-cost" or "no-cost" measures for managing EMFs from electrical facilities up to approximately 4 percent of the total project cost. Four percent of total project budgeted cost for transmission or substation projects is the benchmark for developing EMF reduction measure guidelines, and reduction measures should achieve some noticeable reductions.

Recognizing that there continues to be public interest and concern regarding potential health effects from human exposure to EMFs from electric power lines and related facilities, this document provides information about EMFs for the benefit of the public and decision-makers.

2.5.7.2 Magnetic Field No-Cost Measures

The following no-cost measures would be implemented:

- Keep high-current devices, transformers, capacitors, and reactors away from the substation property lines.

- For underground duct banks, maintain a minimum distance of 12 feet from the adjacent property lines, or as close to 12 feet as practical.
- Locate new substations close to existing power lines to the extent practical.
- Increase the substation property boundary to the extent practical.

2.6 Required Approvals

The CPUC is the Lead Agency for the CEQA review of the Project. The Applicant must comply with the CPUC's General Order 131-D, which contains the permitting requirements for construction of the Project. In addition to the permit to construct that would be issued by the CPUC, the Applicant would obtain approval for the Project from other federal, state, and local agencies, as required and outlined in **Table 2-11***, **Anticipated Permit, Approval, and Consultation Requirements***.

TABLE 2-11
ANTICIPATED PERMIT, APPROVAL, AND CONSULTATION REQUIREMENTS

Permit/Approval/Consultation	Agency	Jurisdiction/Purpose
Federal Agencies		
~~Clean Water Act Section 404~~	~~U.S. Army Corps of Engineers~~	~~Jurisdiction over waters of the United States associated with the replacement of the culverts along CR 27, which flow into a direct tributary to Willow Slough.~~
State Agencies		
Permit to Construct (General Order 131-D)	CPUC	Construction, modification, or alteration of substations and power line facilities.
Transportation Permit for Oversize/Overweight Vehicles	California Department of Transportation (Caltrans)	Operating or moving a vehicle or combination of vehicles or equipment exceeding California Vehicle Code limitations on the State Highway System.
National Pollutant Discharge Elimination System Stormwater Permit (ministerial)	State Water Resources Control Board	Submittal of a Notice of Intent for construction activities disturbing 1 acre or more of soil to comply with the terms of the general permit.
Local/Regional Agencies		
Grading Permit (ministerial)	Yolo County	Grading activities: Grading of substation site, construction of berm, and installation of stormwater retention pond.
Encroachment Permit (ministerial)	Yolo County	For construction activities completed within CR rights-of-way.
Porter-Cologne Water Quality Control Act	Regional Water Quality Control Board	Discharge of fill to waters of the state associated with installation of the three culverts along CR 27.

NOTES: CPUC = California Public Utilities Commission; CR = County Road

SOURCE: PG&E 2024b

2.7 References

OSHA (U.S. Department of Labor, Occupational Safety and Health Administration). 2024. Extremely Low Frequency (ELF) Radiation, Overview. Available: www.osha.gov/SLTC/elfradiation/index.html. Accessed September 24, 2024.

PG&E (Pacific Gas and Electric Company). 2024a. *Proponent's Environmental Assessment Application of Pacific Gas and Electric Company (U39E) for Permit to Construct the Plainfield Substation Upgrade Project*. June 2004.

PG&E (Pacific Gas and Electric Company). 2024b. *Pacific Gas and Electric Company Plainfield Substation Upgrade Project Proponent's Environmental Assessment ("PEA")*. June 2024.

Sicke, Kristin. General Manager, Yolo County Flood Control & Water Conservation District, Woodland, CA. November 25, 2024—email to Tony Aguilar of Pacific Gas and Electric Company regarding irrigation season.

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CHAPTER 3
Environmental Checklist and Discussion

3.1 Aesthetics

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS — Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In nonurbanized areas, 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 a 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?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Environmental Setting

The Plainfield Substation Upgrade Project (Project) site is located adjacent to the south side of County Road (CR) 27 in unincorporated Yolo County, midway between the cities of Woodland and Davis. The adjacent parcels to the south, west, and east of the existing Plainfield Substation are currently used for agricultural purposes, as is the land on the north side of CR 27. The surrounding agricultural land is mostly flat open space covered by grass or soil fields. There are also wooden and metal utility pole structures along CR 27 and across the agricultural fields north of the Project site.

This section describes the existing visual character and quality relevant to the Project. For this assessment, *visual resources* are defined as state scenic highways, designated scenic vistas, and public views (including local scenic roadways) within and outside urbanized areas.

The following are brief definitions of terms used in the evaluation of aesthetic impacts:

- **Visual character** refers to the elements of form, line, color, and texture of the landscape's natural features (e.g., landforms, vegetation, rock, and water features) and built features (e.g., buildings, utility infrastructure), which contribute to the public's experience and appreciation of the environment.

- A designated **scenic vista** is a location from which the public can experience a unique and exemplary view. Scenic vistas are typically available from elevated vantage points that offer panoramic views of great breadth and depth. For this analysis, a designated scenic vista is one identified in planning documents for the Project area (e.g., general plans, zoning ordinances) or a designated roadway vista point.
- **Scenic resources** are features visible from a state scenic roadway, as designated by the California Scenic Highway Program maintained by the California Department of Transportation or otherwise designated by planning documents for the Project area (e.g., general plans, zoning ordinances).
- **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.

The severity of an aesthetic effect also depends on viewer sensitivity to aesthetic changes. *Viewer sensitivity* is the degree of observer interest in visual quality and concern for existing conditions or proposed changes in the landscape. For this analysis, viewer sensitivity is categorized into high, moderate, and low visual sensitivity ranges. These ranges are based on a composite measurement of the overall susceptibility of an area or a viewer (or user) group to adverse visual or aesthetic impacts, given the following combined factors:

- **Visual quality:** An area's overall visual impression or attractiveness as determined by the particular intrinsic physical properties of the landscape, including landforms, rock forms, water features, and vegetation patterns, based on professional, public, and personal values. Land uses that derive value from the quality of their settings, such as parks or scenic routes, are considered particularly sensitive to changes in visual setting conditions.
- **Viewer groups:** The groups of people viewing the affected landscape, such as motorists traveling on nearby roadways, users of parks and other recreational areas, and residents and business patrons. Viewer perspectives inform viewers' levels of sensitivity to changes in the visual landscape around them. For instance, a motorist traveling at highway speeds would not have the same visual experience as a hiker or pedestrian on a public trail who would experience a view for a longer period of time.
- **Public views:** Views experienced from representative publicly accessible vantage points.
- **Viewer exposure:** The visibility of the landscape, viewing distance, viewing angle, extent of visibility, and duration of the view. This analysis describes viewing distances using the following three general categories:
  - *Foreground:* Views observed within 0.25 to 0.5 mile of the viewer.
  - *Middle ground:* Views from the foreground to 3 to 5 miles from the viewer.
  - *Background:* Views extending outward from the middle ground distance to the full distance of landscape visibility.

The foreground can be designated with levels of clarity that are not possible for middle-ground and background views because the viewer is a direct participant in the foreground. Maximum detail and color intensity are characteristic of the foreground zone. In the middle-ground zone, visual elements begin to join in the landscape. Form, color, shape, and scale become evident and visual detail is reduced. In the background zone, visual elements lose detailed distinctions. The visual emphasis focuses on the outlines or edges of land masses or the sky against each other.

3.1.2 Regulatory Framework

3.1.2.1 Federal

No federal regulations related to aesthetic or visual resources are applicable to the Project.

3.1.2.2 State

California Department of Transportation

California Scenic Highway Program

California's Scenic Highway Program, administered by the California Department of Transportation, was created by the Legislature in 1963 to protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to the highways. State requirements in Streets and Highways Code Section 260 et seq. provide a framework for the California Scenic Highway Program. A highway may be designated as scenic depending on the amount of natural landscape that 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 California Scenic Highway Program includes highways that either are eligible for designation as scenic highways or have been designated as such. The status of a state scenic highway changes from *eligible* to *officially designated* when the local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation for scenic highway approval, and receives the designation. A local jurisdiction may propose adding routes with outstanding scenic elements to the list of eligible highways; however, state legislation is required for the routes to become officially designated.

Yolo County has no designated federal or state scenic highways (Yolo County 2009). The nearest designated state scenic highway, State Route 160, is located more than 18 miles southeast of the Project site. The nearest eligible state scenic highways are State Route 16, near the community of Capay, and State Route 128, near the city of Winters. Both of these eligible state scenic routes are located more than 10 miles west of the Project site (Caltrans 2018).

California Public Utilities Commission

General Order 131-D

California Public Utilities Commission (CPUC) General Order 131-D outlines rules for the permitting and construction of electrical transmission lines, power lines, distribution lines, substations, and generation facilities in California. Because the CPUC has exclusive jurisdiction over Project siting, design, and construction, the Project is not subject to local discretionary regulations. Pursuant to General Order 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." Such projects are exempt from local land use and zoning regulations and discretionary permitting; that is, they do not require discretionary approval from a local decision-making body such as a planning commission, county board of supervisors, or city council. However, 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 must obtain any required non-discretionary local permits.

3.1.2.3 Local

Yolo County General Plan

The Plainfield Substation is located adjacent to the south side of CR 27 in unincorporated Yolo County. The Yolo County General Plan (General Plan) (Yolo County 2018) provides general policies and objectives that guide land use decisions, including those that have a bearing on the area's visual character and quality. In general, these policies relate to the preservation of expanses of open space and scenic vistas, natural character, and views from scenic roadways. The General Plan includes the following policies in the Land Use and Community Character Element, under the goal of Preservation of Rural Character:

> ***Policy CC-1.8*:** Screen visually obtrusive activities and facilities such as infrastructure and utility facilities, storage yards, outdoor parking and display areas, along highways, freeways, roads and trails.
>
> ***Policy CC-1.9*:** In communities, place both new and existing line utilities and telecommunications infrastructure underground where feasible. Where underground utilities are not feasible, minimize the aesthetic impact by co-locating new improvements within existing line and facilities where possible.

The General Plan does not designate any scenic vistas, but it does designate two county roads as local scenic roadways in addition to the designated and eligible state scenic highways. As stated in Policy CC-1.13, the first local scenic roadway segment is on CRs 116 and 116B, from the town of Knights Landing to the eastern terminus of CR 16. The second segment is on CRs 16 and 117 and Old River Road, from CR 107 to the city of West Sacramento. These County-designated scenic highways are located more than 9 miles east of the Project site (Yolo County 2018).

3.1.3 Applicant-Proposed Measures

The following Applicant-proposed measures (APMs) would be implemented as part of the Project to reduce potential aesthetic and visual resource effects associated with the Project:

- **APM AES-1: Construction Site.** Construction activities will be kept as clean and inconspicuous as practical. All Project sites will be maintained in a clean and orderly state. Construction staging areas will be sited away from public view where possible. Upon completion of Project construction, Project staging and temporary work areas will be returned to approximate pre-Project conditions, including regrading of the site and revegetation or repaving of disturbed areas similar to pre-existing contours and conditions.
- **APM AES-2: New Source of Substantial Light or Glare Avoidance.** New security lighting at the substation will be directed on-site to reduce potential visibility from offsite locations. Nighttime lighting will be directed away from residential areas and have shields to prevent light spillover effects.
- **APM AES-3: Use of Galvanized Finish on Tubular Steel Poles.** Structures and equipment at the expanded substation will generally have a non-reflective finish and neutral gray color.
- **AMP AES-4: Security Fence.** Security fencing at the substation will be galvanized chain link fence with a non-reflective finish.

3.1.4 Environmental Impacts

3.1.4.1 Methodology and Assumptions

This analysis evaluates impacts on aesthetics and visual resources with a focus on public views associated with the Project. Data for this section were generated by reviewing the planning and policy documents, maps of counties and cities within the study area, Google Earth, and the California State Scenic Highway System Map. Publicly accessible visual resources in the study area for aesthetics were identified and were found to potentially be affected, either directly or indirectly, by the Project's implementation.

The public views described previously were identified as consistent with CEQA standards and guidelines. The U.S. Census Bureau Urban Areas map was reviewed to determine which Project components would be located in urbanized areas, as defined in CEQA Guidelines Section 15387. The results of this review indicate that the Project site is not in an urban area as defined by the U.S. Census Bureau (U.S. Census Bureau 2020).

The California State Scenic Highway System Map was reviewed to assess whether any of the Project components would be visible from state scenic highways traversing or within view of the study area for the aesthetics analysis. Although the CEQA Guidelines Appendix G scenic highway criterion is specific only to state scenic highways, the General Plan was also consulted to identify locally designated scenic roadways. This assessment is included in the evaluation of visual quality and character within the study area.

3.1.4.2 Direct and Indirect Effects

Criterion a) Whether the Project would have a substantial adverse effect on a scenic vista: *No Impact.*

For purposes of this analysis, a *scenic vista* is defined as a location from which the public can experience a unique and exemplary view. As defined in Section 3.1.1, *Environmental Setting*, scenic vistas typically are available from elevated vantage points that offer panoramic views of great breadth and depth. The existing Plainfield Substation, located adjacent to the south side of CR 27 in unincorporated Yolo County, is surrounded by agricultural fields to the north, south, west, and east. The agricultural fields and CR 27 surrounding the Project site do not offer unique or exemplary views, nor do they provide any elevated vantage points. The Project proposes to expand the Plainfield Substation into adjacent agricultural fields, 415 feet east and 235 feet south of the existing substation fence line, adding approximately 5.2 acres to the substation's footprint. There are no designated scenic vistas within the Project area. Once constructed, Project infrastructure would be similar in form, line, and color to the existing substation facility and consistent with the visual character of the site. Therefore, there would be no effect on scenic vistas and **no impact** would occur.

Criterion 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.*

As discussed in Section 3.1.1, *Environmental Setting*, the Project site is not within a state scenic highway (Caltrans 2018). The nearest designated state scenic highway is more than 18 miles southeast of the Project site. Additionally, the Project would not alter or damage any rock outcroppings or historic

buildings, as none are present on the Project site. Therefore, **no impact** on scenic resources within a state scenic highway would occur.

Criterion c) Whether the Project would in nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings; or if in an urbanized area, whether the Project would conflict with applicable zoning and other regulations governing scenic quality: *Less-than-Significant Impact.*

The Project site is in an area mapped as non-urbanized. *Visual character* refers to the elements of form, line, color, and texture of the landscape's natural and built features (e.g., buildings, utility infrastructure), which contribute to the public's experience and appreciation of the environment. As described in Section 3.1.3, *Applicant-Proposed Measures*, APM AES-1 includes commitments to maintain the site in a clean and orderly state. With this measure implemented, construction activities would be kept as clean and inconspicuous as practical, and construction staging areas would be sited away from public view where possible. Upon the completion of Project construction, Project staging and temporary work areas would be returned to approximate pre-Project conditions.

Although there are locally designated scenic roads, none are near or within view of the Project site. As stated in Section 3.1.1, *Environmental Setting*, the closest County-designated scenic roadways are more than 9 miles east of the Project site. Once constructed, the Project infrastructure would be similar in form, line, and color to the existing substation facility, consistent with the visual character of the site. Therefore, the Project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings, and the impact would be **less than significant**.

Criterion 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.*

Lighting at the existing Plainfield Substation consists of stand-alone structures approximately 10 feet tall, with shielded lights at the top. Under existing conditions, PG&E keeps the substation lights on at all times. Light structures at the substation provide workers with nighttime visibility and enhance safety.

Because the Project site is surrounded by agricultural fields with few residences in the vicinity, the viewer groups that would be most affected by light or glare would be motorists traveling along CR 27. As mentioned in Chapter 2, *Project Description*, construction is not anticipated to occur at night. Construction would involve adding metallic materials from construction equipment to the site, which could temporarily increase conditions of glare for motorists traveling along local roadways, including CR 27. However, equipment would be removed from the Project site after construction ceases. The potential less-than-significant impacts associated with equipment glare would not persist after the construction phase, as discussed below.

The Project would include installation of new light-emitting diode (LED) lighting. To minimize potential effects associated with light and glare, APMs AES-2, AES-3, and AES-4 would be implemented. Consistent with these Applicant-proposed measures, new security lighting at the substation would be directed on-site to reduce potential visibility from off-site locations. Nighttime lighting would be directed away from residential areas and would have shields to prevent light spillover effects. Structures and equipment at the expanded substation are proposed to generally have a non-reflective finish and neutral

gray color. Security fencing at the substation would be galvanized chain-link fence with a non-reflective finish. These APMs would reduce the light or glare effects in the area for motorists traveling along CR 27 because the muted colors would not reflect glare off of oncoming headlights. Moreover, the nighttime lighting would not have a substantial effect on nighttime views because the added lights would be directed on-site and would not constitute a major change relative to existing conditions. Therefore, the Project would not create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area. Potential impacts would be **less than significant**.

3.1.5 References

Caltrans (California Department of Transportation). 2018. California State Scenic Highway System Map. Available: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed October 1, 2024.

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Yolo County. 2009. *County of Yolo 2030 Countywide General Plan: Conservation and Open Space Element*. October 2018. Available: https://www.yolocounty.gov/home/showpublisheddocument/14464/635289380535200000. Accessed October 1, 2024.

Yolo County. 2018. *County of Yolo 2030 Countywide General Plan: Land Use and Community Character Element*. October 2018. Available: https://www.yolocounty.gov/home/showpublisheddocument/77725/638296928542830000. Accessed October 1, 2024.

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3.2 Agriculture and Forestry Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
II. 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 Dept. 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?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
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])?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☒	☐

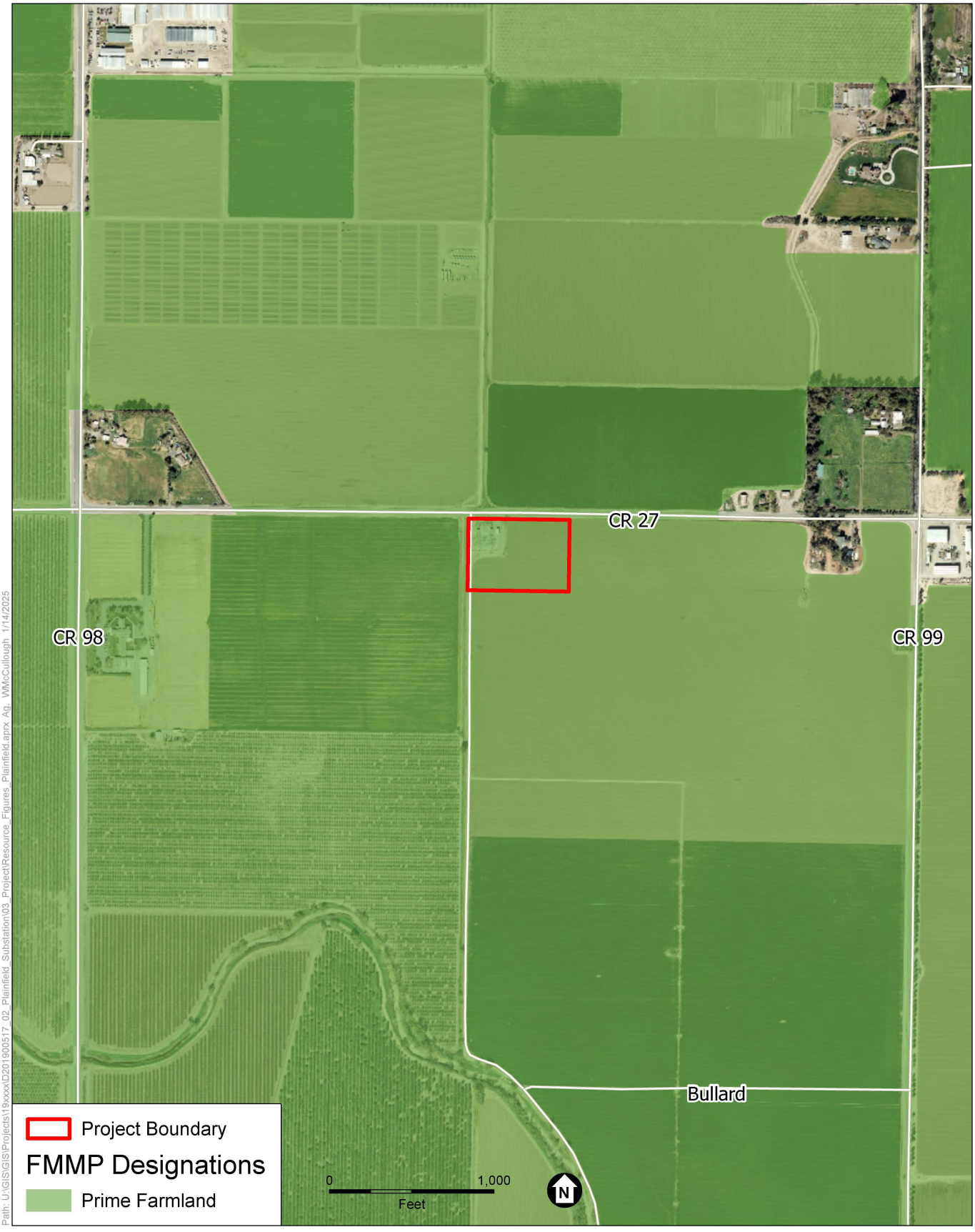
3.2.1 Environmental Setting

The study area for agriculture resources consists of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance defined through the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) within and adjacent to the Project site. The study area for forestry resources includes forest land and timberland that meet the definitions provided below.

3.2.1.1 Agricultural Resources

The Project area would total approximately 6.1 acres: 5.2 acres for the expanded substation and 0.9 acre for the existing substation. The 5.2-acre expansion area is currently used for agriculture. It is zoned as Agricultural Intensive (A-N) (Yolo County 2021, 2024a) and designated as Prime Farmland under the FMMP (DOC 2024a). The adjacent parcels on all sides are also classified as Prime Farmland and are located within the A-N zoning district. **Figure 3.2-1**, ***Important Farmland***, depicts the FMMP-mapped farmland within the study area. Section 3.2.2, *Regulatory Framework*, describes the FMMP classification system in greater detail.

The California Department of Water Resources' statewide crop mapping data for 2022 show that agricultural uses surround the Project site on all sides. Outside of the existing substation, the Project site contains field crops. The surrounding land includes field crops; truck, nursery, and berry crops; and young perennials (DWR 2024).



Source: ESA, 2024; CDOC, 2024

Plainfield Substation Upgrade Project

Figure 3.2-1
Important Farmland

ESA

The portion of the Project site that contains the existing substation is not enrolled within the Williamson Act Program. However, the land that PG&E would purchase and add to the substation footprint is currently enrolled within the County's agricultural preserve contract program as Prime Agricultural Land (defined below in Section 3.2.2, *Regulatory Framework*). Williamson Act–contracted parcels are also located immediately adjacent to the east, west, and south of the Project site, as depicted in **Figure 3.2-2**, ***Williamson Act–Contracted Lands***. The parcels adjacent to the north of the Project site are not subject to Williamson Act contracts. Section 3.2.2, *Regulatory Framework*, describes the Williamson Act Program in greater detail.

3.2.1.2 Forestry Resources

The Project site does not contain any land defined as forest land (as defined by Public Resources Code [PRC] Section 12220[g]), timberland (as defined by PRC Section 4526), or land zoned Timberland Production (as defined by Government Code Section 51104[g]). Furthermore, the Conservation and Open Space Element in Yolo County's General Plan states that "Forests and forestlands are addressed in this element only as related to various woodland habitats, as the County has no commercial forestland or timber resources." Forests in Yolo County are generally located in the western portion of the county in the foothills and valleys, at least 11 miles from the Project site. There are no trees on the Project site.

3.2.2 Regulatory Framework

3.2.2.1 Federal

No federal plans or regulations apply to the analysis of Project impacts on agriculture or forestry resources.

3.2.2.2 State

California Farmland Mapping and Monitoring Program

The California Department of Conservation's FMMP provides a classification system for farmland based on technical soil ratings and current land use. The minimum land use mapping unit is 10 acres unless specified; smaller units of land are incorporated into the surrounding map classifications. The Project would be in a location classified as Prime Farmland (DOC 2024a).

For the purposes of this environmental analysis, the term *Farmland* refers to the FMMP map categories Prime Farmland, Unique Farmland, and Farmland of Statewide Importance (hereafter referred to collectively as "Farmland"). Generally, any conversion of land from one of these categories to a lesser quality category or a non-agricultural use would be considered an adverse impact. These map categories are defined as follows (DOC 2023):

> ***Prime Farmland***: Land that has the best combination of physical and chemical features able to sustain long-term agricultural production. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.
>
> ***Farmland of Statewide Importance***: Land that is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to hold and store moisture. Land must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.

> ***Unique Farmland***: Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the 4 years prior to the mapping date.

A fourth category is *Farmland of Local Importance*, which in Yolo County includes all farmable lands that do not meet the definitions of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. Farmland of Local Importance includes land that is or has been used for dryland farming, irrigated pasture, confined livestock and dairy, poultry facilities, aquaculture, and grazing land.

Another map category is *Grazing Land*, which was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The Grazing Land category refers to land on which the existing vegetation is suited to the grazing of livestock (DOC 2023).

PRC Section 21060.1 does not include either Farmland of Local Importance or Grazing Land in its definition of *agriculture*.

In California, land must meet at least one of the five criteria set forth below to qualify as prime agricultural land (Government Code Section 51201):

(1) All land that qualifies for rating as class I or class II in the Natural Resource Conservation Service land use capability classifications.

(2) Land which qualifies for rating 80 through 100 in the Storie Index Rating.[4]

(3) 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 defined by the United States Department of Agriculture.

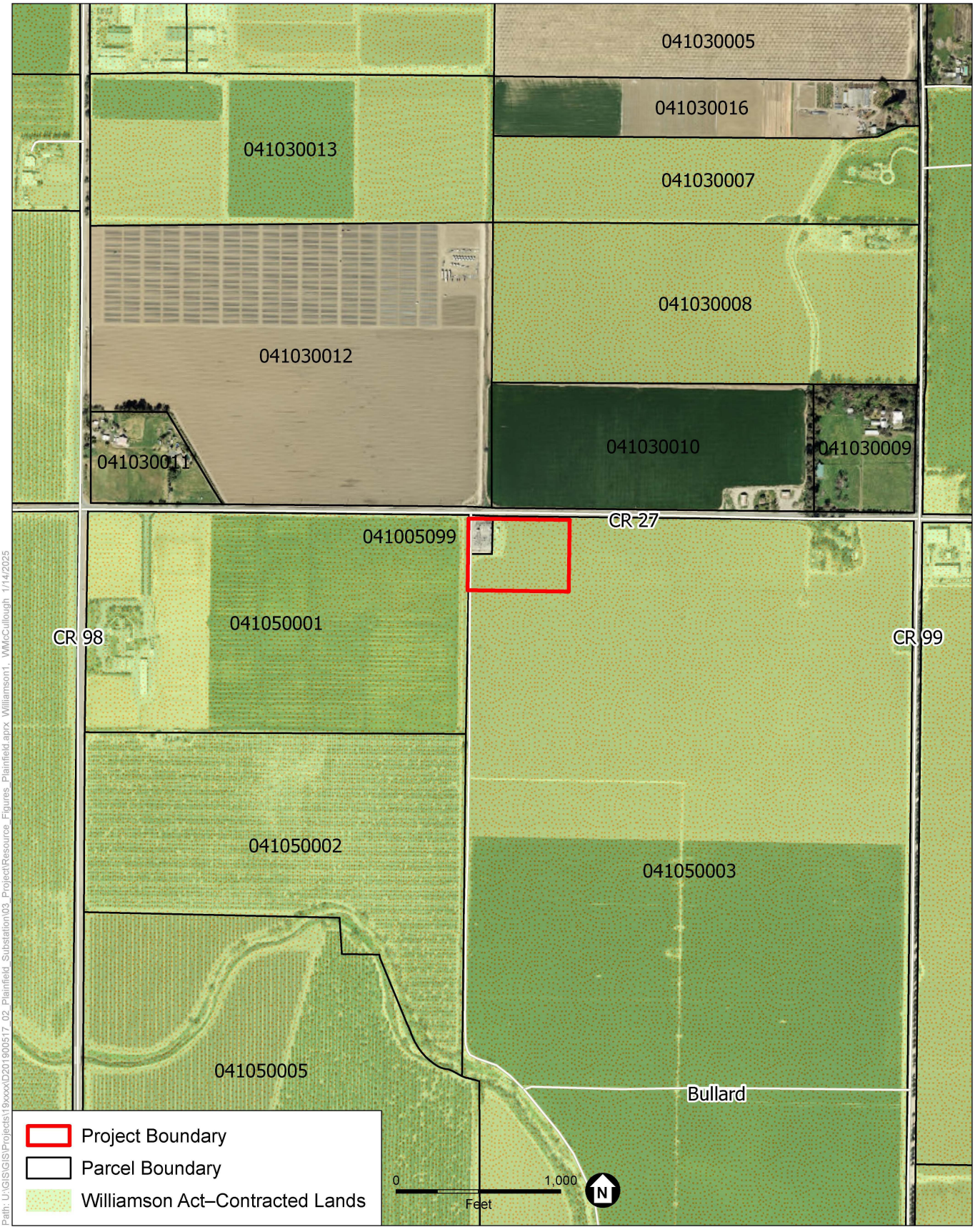
(4) Land planted with fruit- or nut-bearing trees, vines, bushes, or crops which have a nonbearing period of less than five years and which will normally return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than two hundred dollars ($200) per acre.

(5) Land which has returned from the production of unprocessed agricultural plant products an annual gross value of not less than two hundred dollars ($200) per acre for three of the past five years.

California Land Conservation Act of 1965 (Williamson Act)

The Williamson Act, the commonly used name for the California Land Conservation Act of 1965 (Government Code Section 51200 et seq.), 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. In return, Williamson Act contracts offer tax incentives to property owners by ensuring that land is assessed for retained farming and open space uses (as opposed to assessments based on full market value). Contracts typically restrict land use to agriculture for a period of 10 years.

[4] The *Storie Index* is a method of soil rating based on soil characteristics (e.g., depth, texture, permeability, chemical characteristics, drainage, surface runoff, and climate) that govern the land's potential utilization and productivity capacity. A Storie index rating of 80–100 classifies the land as "excellent," the highest range of the index.



Source: ESA, 2024; CDOC, 2024

Plainfield Substation Upgrade Project

Figure 3.2-2
Williamson Act–Contracted Lands

ESA

The Williamson Act establishes that specified uses are compatible with Williamson Act contracting. See Government Code Section 51238(a), which states:

> *Notwithstanding any determination of compatible uses by the county or city pursuant to this article, unless the board or council after notice and hearing makes a finding to the contrary, the erection, construction, alteration, or maintenance of… electric… facilities are hereby determined to be compatible uses within any agricultural preserve.*
>
> *No land occupied by… electric… facilities shall be excluded from an agricultural preserve by reason of that use.*

According to Section 51238.1, a lead agency may approve uses on contracted lands if they are consistent with the following principles of compatibility:

(1) The use will not significantly compromise the long-term productive agricultural capability of the subject contracted parcel or parcels or on other contracted lands in agricultural preserves.

(2) The use will not significantly displace or impair current or reasonably foreseeable agricultural operations on the subject contracted parcel or parcels or on other contracted lands in agricultural preserves.

(3) The use will not result in the significant removal of adjacent contracted land from agricultural or open-space use.

In evaluating compatibility, a lead agency considers the impacts of the proposed use on noncontracted lands in the agricultural preserve or preserves.

Williamson Act contracts automatically renew on each anniversary date of the contract unless the landowner petitions for cancellation or nonrenewal of the entire contract or a portion of the contracted land, and the participating county (or city) serves notice of nonrenewal or cancellation. In the case of nonrenewal, the contract ends after 9 years. In the case of cancellation, the contract ends with immediate effect, with approval of the cancellation by the board of supervisors or city council. The landowner must submit a proposal that describes how the land will be used after a contract is cancelled, along with a list of all relevant public agencies with permit authority over the proposed use(s). Public notice and an assessment of fees (cancellation valuation) are required to certify the cancellation (DOC 2022). Additionally, a county or city may grant tentative approval of a cancellation if it makes certain findings, either that cancellation is consistent with the Williamson Act or that cancellation is in the public interest (Government Code Section 51282[a]).

California Farmland Conservancy Program of 1996

The California Department of Conservation's Division of Land Resource Protection administers the state-level California Farmland Conservancy Program, which widens the spectrum of agricultural land conservation options via the use of permanent agricultural conservation easements. The program protects and conserves agricultural lands by administering permanent agricultural conservation easements, provides a funding mechanism, and administers related technical assistance grant support for agricultural protection (DOC 2024b).

California Public Resources Code

PRC Section 12220(g) defines *forest land* 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." PRC Section 4526 defines *timberland* 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."

3.2.2.3 Local

California Public Utilities Commission General Order 131-D

California Public Utilities Commission (CPUC) General Order 131-D outlines the rules for permitting and construction of electrical transmission lines, power lines, distribution lines, substations, and generation facilities in California. The General Order determines the conditions under which CPUC approval is required, depending on whether the project concerns new or existing infrastructure. The General Order requires a permit to construct for electric substations designed for immediate or eventual operation at any voltage between 50 and 200 kilovolts.

Yolo County General Plan

The Agriculture and Economic Development Element of the Yolo County General Plan (General Plan) establishes goals, policies, and programs related to agriculture. The General Plan's land use designation for the Project site is Prime Agriculture, which provides for the production of crops and livestock, and for location of necessary agriculture commercial centers, agricultural processing facilities, and certain non-agricultural activities (Yolo County 2009). The following goal and policies related to agriculture are applicable to the Project:

Goal AG-1: Preserve and defend agriculture as fundamental to the identity of Yolo County.

***Policy AG-1.5*:** Strongly discourage the conversion of agricultural land for other uses. No lands shall be considered for redesignation from Agricultural or Open Space to another land use designation unless all of the following findings can be made: There is a public need or net community benefit, there are no alternative locations for the proposed project, and the use would not have a significant adverse effect on the existing or potential agricultural activities.

***Policy AG-1.6*:** Continue to mitigate at a ratio of no less than 1:1 the conversion of farmland and/or the conversion of land designated or zoned for agriculture, to other uses.

***Policy AG-1.14*:** Preserve agricultural lands using a variety of programs, including the Williamson Act, Farmland Preservation Zones (implemented through the Williamson Act), conservation easements, an Agricultural Lands Conversion Ordinance, and the Right-to-Farm Ordinance.

The Land Use and Community Character Element of the General Plan establishes goals, policies, and programs related to land use (Yolo County 2018). The following goal and policy related to land use are applicable to the Project:

Goal LU-2: Preserve farmland and expand opportunities for related business and infrastructure to ensure a strong local agricultural economy.

> ***Policy LU-2.4*:** Vigorously conserve, preserve, and enhance the productivity of the agricultural lands in areas outside of adopted community growth boundaries and outside of city spheres of influence.

Yolo County Zoning Ordinance

According to the Yolo County Zoning Code and adopted maps, the parcels associated with Assessor's Parcel Number (APN) 041-005-099 and the portion of APN 041-050-003 that PG&E would purchase to expand the substation are zoned as A-N. The A-N zoning district is assigned to lands with superior farming conditions to prevent encroachment of non-agricultural uses. The A-N Zone limits land use to agriculture production or activities compatible with agricultural uses to protect the viability of the family farm (Yolo County 2021).

Yolo County Agricultural Conservation and Mitigation Program

The Yolo County Agricultural Conservation and Mitigation Program is designed to implement the agricultural land conservation objectives of the Yolo County General Plan to protect agricultural land in unincorporated Yolo County. It includes mitigation requirements that specify, unless exempt, agricultural mitigation shall be required for the conversion of agricultural use to non-agricultural use. Projects that convert Prime Farmland must preserve three acres of agricultural land for every acre of land converted (Yolo County 2024b).

3.2.3 Applicant-Proposed Measures

The following Applicant-proposed measure would be implemented as part of the Project to reduce potential effects of the Project on agricultural resources:

- **AGR-1: Landowner Coordination.** PG&E will coordinate with the landowner in advance of construction activities to minimize impacts on agricultural operations.

3.2.4 Environmental Impacts

3.2.4.1 Methodology and Assumptions

This analysis relies on agricultural maps produced by the California Department of Conservation and other planning and resource agencies to determine whether the Project would directly or indirectly affect land used for agricultural or forestry purposes. This section evaluates impacts based on whether the Project would convert such lands to non-agricultural or non-forestry uses, conflict with existing zoning for agricultural and forestry uses, or involve other changes in the environment that would directly or indirectly affect these land uses.

Additionally, this analysis evaluates potential impacts on designated Important Farmland (which includes Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance). The conversion of Important Farmland would be considered significant if more than 10 acres of Prime Farmland or more than 40 acres of non-Prime Farmland (Farmland of Statewide Importance or Unique Farmland) is converted to non-agricultural use. These thresholds are used because they are the minimum acreage requirements for individual parcels able to enter into Williamson Act contracts, as stated in

Section 51222 of the California Government Code, and represent parcels or areas of agricultural land that are large enough to sustain agricultural operations:

> *The Legislature further declares that it is in the public interest for local officials and landowners to retain agricultural lands which are subject to contracts entered into pursuant to this act in parcels large enough to sustain agricultural uses permitted under the contracts. For purposes of this section, agricultural land shall be presumed to be in parcels large enough to sustain their agricultural use if the land is (1) at least 10 acres in size in the case of prime agricultural land, or (2) at least 40 acres in size in the case of land which is not prime agricultural land.*

Additional factors that determined these threshold limits include the use of 10-acre minimum mapping units for the important farmland maps. Ten acres is the minimum mapping unit on the DOC FMMP Important Farmland maps. The minimum mapping unit indicates the spatial scale of the maps and is the smallest unit or feature represented on the maps, with smaller than 10-acre features being absorbed into the surrounding classifications. In addition, 10 acres is used as the threshold for Prime Farmland because it is commonly used within guidelines utilized by other local agencies in California. Therefore, these thresholds incorporate the sensitivities of the DOC's mapping techniques.

The CPUC has, in past analyses, identified 10 acres as the minimum threshold for significance, resulting in conclusions of less-than-significant impacts for Farmland conversions of less than 10 acres. Examples include the Gates 500kV Dynamic Reactive Support EIR (CUPC 2022), West of Devers EIR (CPUC 2015), and Tehachapi Renewable Transmission Project EIR (CPUC 2010).

3.2.4.2 Direct and Indirect Impacts

Criterion a) Whether the Project would 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.*

The Project site comprises approximately 6.1 acres of Prime Farmland, as shown on maps prepared pursuant to the FMMP. There is no Unique Farmland or Farmland of Statewide Importance on the site. Accordingly, the Project would not convert any Unique Farmland or Farmland of Statewide Importance to a non-agricultural use, and thus would cause no impact with respect to these types of Farmland. The remainder of the analysis pertains to the potential impacts on Prime Farmland.

As discussed in Section 3.2.1, *Environmental Setting*, the existing substation occupies 0.9 acre and the expanded substation would add 5.2 acres to the substation's footprint. The entire expansion would occur on Prime Farmland and would convert 5.2 acres for use as an electrical substation. Among other objectives, this expansion would increase service reliability to customers, including to agricultural operations, in unincorporated Yolo County and the cities of Woodland and Davis.

The expansion would occur on 5.2 acres of a 320.8-acre parcel (APN 041-050-003). After Project implementation, 315.6 acres of land designated as Prime Farmland would remain within the parcel. As mentioned above, the Williamson Act (Government Code Section 51200 et seq.) defines a minimum threshold by which a parcel containing Prime Farmland could sustain agricultural use as at least 10 acres in size in the case of Prime Farmland. Accordingly, the remainder of APN 041-050-003 would be

sufficiently sized to sustain existing agricultural use on the Prime Farmland, as 320.8 acres would remain. Furthermore, the conversion of 5.2 acres of Prime Farmland is less than the significance threshold of 10 acres. The Project would reduce the size of APN 041-050-003 by less than 2 percent and would convert less than 0.002 percent of Prime Farmland in Yolo County (DOC 2020).

Although 5.2 acres of Prime Farmland would be converted to a non-agricultural use, the Project would account for a small reduction to the original parcel size, and the remainder of the parcel would remain as Prime Farmland. Finally, the Project would convert fewer acres of Prime Farmland than the significance threshold of 10 acres, therefore, the Project would result in a **less-than-significant** impact on Prime Farmland.

Mitigation: None required.

Criterion b) Whether the Project would conflict with existing zoning for agricultural use, or a Williamson Act contract: *Less-than-Significant Impact.*

The parcels within the Project site are located within the A-N zoning district. A-N zoned lands are primarily limited to intensive agricultural production but are also provisioned for other activities compatible with agricultural uses, which includes allowing agriculturally related support uses. According to Yolo County Zoning Code Section 8-2.304, electrical distribution and transmission substations are a conditional use permitted through the issuance of a Minor Use Permit. Therefore, the Project would not conflict with existing zoning for agricultural use. However, as discussed in Section 3.11, *Land Use and Planning*, the Project is not subject to local land use and zoning regulations as a public utility facility regulated by the CPUC pursuant to General Order 131-D.

As discussed under Criterion a), after Project construction, the remaining 315.6 acres of land on APN 041-050-003 would be sufficiently sized to sustain agricultural use under the existing Williamson Act contract. The expansion area is located on lands subject to a Williamson Act contract, so either the existing contract would be adjusted to remove the 5.2 acres, or Government Code Section 51295 would apply, whereby the contract is automatically deemed null and void as to the land acquired by a public utility, and the remaining portion of the parcel remains under contract. Regardless, pursuant to Government Code Section 51238(a), electric facilities, such as the proposed substation expansion, would be considered a compatible use on Williamson Act–contracted lands.

The Project would not significantly compromise the long-term productive agricultural capability of the parcel, nor would it significantly displace or impair current or reasonably foreseeable agricultural operations on the contracted parcel. Additionally, it would not lead to the significant removal of adjacent contracted land from agricultural use. The Project would not affect the land or surrounding lands in these aforementioned ways and would not conflict with a Williamson Act contract. Additionally, as discussed in Criterion a), the Project would not reduce the size of the parcel to fewer than 10 acres, and California Government Code Section 51222 stipulates that the remaining parcel would be sufficiently sized to maintain its Williamson Act contract.

For these reasons, although the Project would expand an existing substation into an agricultural area, the Project would not conflict with existing zoning for agricultural use, or with a Williamson Act contract. Therefore, this impact would be **less than significant**.

Mitigation: None required.

Criterion c) Whether the Project would conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC section 12220[g]), timberland (as defined by PRC section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104[g]): *No Impact.*

The Project site does not contain any forest land (as defined by PRC Section 12220[g]), timberland (as defined by PRC Section 4526), or land zoned Timberland Production (as defined by Government Code Section 51104[g]). The Project site is within the A-N zoning district, and the Project would not require a change to that designation. Therefore, the Project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **No impact** would occur under this criterion.

Mitigation: None required.

Criterion d) Whether the Project would result in the loss of forest land or conversion of forest land to non-forest use: *No Impact.*

As described in Section 3.2.1, *Environmental Setting*, the Project site does not contain any mature trees or forest land. The site has historically been used for agricultural purposes. Therefore, the Project would not result in the loss of forest land or conversion of forest land to non-forest use, and **no impact** would occur under this criterion.

Mitigation: None required.

Criterion e) Whether the Project would 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: *Less-than-Significant Impact.*

Construction

As described in Section 3.2.1, *Environmental Setting*, the adjacent parcels on all sides of the Project site are classified as Prime Farmland. As discussed under Criterion a), although the Project would reduce the agricultural area of the parcel containing the Project site, the Project's impact on Prime Farmland would not be considered a significant reduction of the County's agricultural land resources. A small portion of Prime Farmland would be converted, and the remainder of the agricultural parcel would remain viable. Construction activities would not result in the conversion of other Prime Farmland surrounding the Project site. Construction activity has the potential to cause an impact given the proximity of temporary work areas to agricultural activities; however, Applicant-Proposed Measure AGR-1 would ensure coordination with landowners to minimize these impacts. Additional discussion of temporary work areas can be found in Section 2.5.2.7, *Work Areas.* Furthermore, these work areas would be temporary, so the land would be returned to its former use upon completion of the Project. Because the land would not be permanently converted and would be returned to its former use as agriculture after construction, this impact would be **less than significant**.

Operations

As stated previously, the expanded substation would be remotely monitored, with operation and maintenance personnel performing routine monthly inspections. Power line inspections would remain unchanged and transmission line inspections would be conducted annually, alternating between ground inspections and aerial surveys, which would be unchanged from current procedures. No additional conversion of Farmland or forest land to non-agricultural use would occur as a result of operation and maintenance activities. Therefore, **no impact** on agricultural resources would occur during operation.

Mitigation: None required.

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3.3 Air Quality

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
III. 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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

The information and analysis in this section are based in part on the air pollutant emissions calculations estimated for the Project on behalf of PG&E, as presented in the Proponent's Environmental Assessment and secondary data request (PG&E 2024a, 2004b; see Proponent's Environmental Assessment [PEA] **Appendix B**, *Emissions Calculations*, and Data Request 1). The emissions calculations were reviewed by Environmental Science Associates and were found to be adequate to include in this analysis.

3.3.1 Environmental Setting

The Project area is located in the Sacramento Valley Air Basin (SVAB) under the jurisdiction of the Yolo-Solano Air Quality Management District (YSAQMD), which includes all of Yolo County and the northeastern portion of Solano County.

The SVAB encompasses 11 counties: all of Shasta, Tehama, Glenn, Colusa, Butte, Sutter, Yuba, Sacramento, and Yolo counties; the westernmost portion of Placer County; and the northeastern half of Solano County. The SVAB is relatively flat, bordered by mountains to the east, west, and north. Air flows into the SVAB through the Carquinez Strait, the only breach in the western mountain barrier, and moves across the Sacramento–San Joaquin Delta, bringing with it pollutants from the heavily populated San Francisco Bay Area. The climate is characterized by hot, dry summers and cool, rainy winters. Periods of dense, persistent low-level fog that are most prevalent between storms are characteristic of SVAB winter weather. From May to October, the region's intense heat and sunlight lead to high ozone concentrations. Summer inversions, formed by warm air subsiding in a region of high pressure, are strong and frequent but are less troublesome than those that occur in fall. Autumn inversions have accompanying light winds that do not adequately disperse air pollutants.

3.3.1.1 Criteria Air Pollutants

The U.S. Environmental Protection Agency (USEPA) has identified criteria air pollutants and has set national ambient air quality standards for widespread pollutants from numerous and diverse sources that pose a threat to public health and welfare. USEPA has set national ambient air quality standards for seven principal pollutants, which are called "criteria" pollutants: carbon monoxide (CO), lead, nitrogen dioxide

(NO_2), ozone, particulate matter less than or equal to 10 microns in diameter (PM_{10}), particulate matter less than or equal to 2.5 microns in diameter ($PM_{2.5}$), and sulfur dioxide (SO_2). The federal Clean Air Act requires areas not meeting health standards to develop strategies for achieving those standards by federal deadlines. The State of California has established the California ambient air quality standards for these criteria pollutants, as well as ambient air quality standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

Nitrogen Dioxide

NO_2 is an air pollutant of concern because it acts as a respiratory irritant. NO_2 is a major component of the group of gaseous nitrogen compounds commonly referred to as *oxides of nitrogen* (NO_X). A precursor to ozone formation, NO_X is produced by fuel combustion in motor vehicles, industrial stationary sources (such as industrial activities), ships, aircraft, and rail transit. Typically, NO_X emitted from fuel combustion takes the form of nitric oxide and NO_2. Nitric oxide is often converted to NO_2 when it reacts with ozone or undergoes photochemical reactions in the atmosphere.

Ozone

Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Ozone is not emitted directly into the atmosphere; rather, it is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving volatile organic compounds and NO_X. Volatile organic compounds are also referred to by the California Air Resources Board (CARB) as *reactive organic gases*. Reactive organic gases and NO_X are known as precursor compounds for ozone. Substantial ozone production generally requires that ozone precursors be present in a stable atmosphere with strong sunlight for approximately 3 hours.

Ozone is a regional air pollutant because it is not emitted directly by sources, but instead is formed downwind of sources of volatile organic compounds and NO_X under the influence of wind and sunlight. Ozone concentrations tend to be higher in the late spring, summer, and fall, when conditions such as long sunny days and regional subsidence inversions are conducive to the formation and accumulation of secondary photochemical compounds.

Carbon Monoxide

CO is a non-reactive pollutant that is a product of incomplete combustion and is associated mostly 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 blood's oxygen-carrying capacity. This process reduces the amount of oxygen that reaches the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia.

Particulate Matter

PM_{10} and $PM_{2.5}$ 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 local; others, such as vehicular traffic, have a more regional effect. Particulates can damage materials and reduce visibility. Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed gases (e.g., chlorides or ammonium) that may be injurious to health.

Sulfur Dioxide

SO_2 is a colorless acidic gas with a pungent odor produced by the combustion of sulfur-containing fuels, such as oil, coal, and diesel. It has the potential to damage materials and cause health effects at high concentrations. SO_2 can irritate lung tissue and increase the risk of acute and chronic respiratory disease.

3.3.1.2 Attainment Status

The YSAQMD is responsible for ensuring compliance with the federal and state ambient air quality standards within its jurisdiction. The federal government and the State of California have established health-based air quality standards for the following criteria pollutants: ozone, CO, NO_2, PM_{10}, $PM_{2.5}$, SO_2, and lead. Additionally, California has implemented more stringent standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Adherence to these standards is crucial to protect sensitive populations and the general public from the adverse health effects associated with exposure to criteria pollutants.

Table 3.3-1, ***National and California Ambient Air Quality Standards and Attainment Status for YSAQMD***, presents the current national and California ambient air quality standards and the YSAQMD's attainment status relative to those standards. The YSAQMD is currently classified as non-attainment for the state 1-hour and national/state 8-hour ozone, state 24-hour and annual PM_{10}, and national 24-hour $PM_{2.5}$ standards. All other criteria pollutants in the YSAQMD are classified as attainment or unclassified relative to the federal and state standards.

Existing Ambient Air Quality

The YSAQMD and CARB operate a regional monitoring network that measures ambient concentrations of criteria pollutants. Existing and probable future levels of air quality in the SVAB can be inferred from ambient air quality measurements conducted by the YSAQMD at its monitoring stations. The major criteria pollutants of concern in the YSAQMD—ozone, PM_{10}, and $PM_{2.5}$—are monitored at multiple locations, and CARB posts the associated air quality data statistics online. Background ambient concentrations of pollutants are determined by pollutant emissions in a given area and the area's topography and meteorological conditions. As a result, background concentrations within the SVAB can vary by location. However, areas located close together with similar topography and exposed to similar wind conditions can be expected to have similar background pollutant concentrations.

TABLE 3.3-1
NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS FOR YSAQMD

Pollutant	Averaging Time	National Standard		State Standard	
		Concentration	YSAQMD Attainment Status	Concentration	YSAQMD Attainment Status
Ozone (O_3)	8-Hour	0.070 ppm	Non-attainment	0.070 ppm	Non-attainment
	1-Hour	--	--	0.090 ppm	Non-attainment
Carbon Monoxide (CO)	1-Hour	35 ppm	Attainment	20 ppm	Attainment
	8-Hour	9 ppm		9.0 ppm	
Nitrogen Dioxide (NO_2)	1-Hour	0.100 ppm	Attainment	0.18 ppm	Attainment
	Annual	0.053 ppm		0.030 ppm	
Sulfur Dioxide (SO_2)	1-Hour	0.075 ppm	Attainment/ Unclassified	0.25 ppm	Attainment
	24-Hour	0.14 ppm		0.04 ppm	--
	Annual	0.030 ppm		--	--
Respirable Particulate Matter (PM_{10})	24-Hour	150 $\mu g/m^3$	Unclassified	50 $\mu g/m^3$	Non-attainment
	Annual	--	--	20 $\mu g/m^3$	
Fine Particulate Matter ($PM_{2.5}$)	24-Hour	35 $\mu g/m^3$	Non-attainment	--	Unclassified
	Annual	9.0 $\mu g/m^3$ [a]	Unclassified	12 $\mu g/m^3$	Unclassified
Lead (Pb)	30-Day	--	--	1.5 $\mu g/m^3$	Attainment
	Quarterly	1.5 $\mu g/m^3$	Attainment	--	--

NOTES:
$\mu g/m^3$ = micrograms per cubic meter; ppm = parts per million; USEPA = U.S. Environmental Protection Agency; YSAQMD = Yolo-Solano Air Quality Management District.

a. In February 2024, the USEPA implemented a new national annual $PM_{2.5}$ standard of 9.0 $\mu g/m^3$.

SOURCE: YSAQMD 2021

The closest air pollutant monitoring stations to the Project site are the Woodland–Gibson Road monitoring station, approximately 4 miles to the northeast in the city of Woodland, which measures 1-hour and 8-hour ozone, $PM_{2.5}$, and PM_{10} concentrations; and the monitoring station at the University of California, Davis campus, approximately 6 miles to the south in the city of Davis, which measures NO_2 concentrations. For the purposes of this analysis, these measurements were considered representative of air quality conditions in the Project vicinity. CO and SO_2 concentrations no longer exceed health-based standards within California, and CARB no longer posts air quality data statistics online for those pollutants.

Table 3.3-2, ***Air Quality Data Summary (2021–2023) for the Project Area***, shows a 3-year summary ozone, $PM_{2.5}$, and PM_{10} data collected at the Woodland–Gibson Road monitoring station and NO_2 data collected at the University of California, Davis, campus monitoring station. The table also compares these data to the national and California ambient air quality standards, which are presented in more detail in Table 3.3-1. As shown in Table 3.3-2, the national and state 8-hour ozone standards were exceeded on multiple days between 2021 and 2023. The national 24-hour $PM_{2.5}$ standard was exceeded on 1 day in 2023. The state annual-average $PM_{2.5}$ standard was not exceeded during the 3-year period from 2021 through 2023. The national 24-hour PM_{10} standard was not exceeded between 2021 and 2023, but the state 24-hour PM_{10} standard was exceeded on multiple days during the 3-year period. The state annual

average PM_{10} standard was exceeded in 2021 and 2022. The national and state and NO_2 standards were not exceeded during the 3-year study period.

TABLE 3.3-2
AIR QUALITY DATA SUMMARY (2021–2023) FOR THE PROJECT AREA

Pollutant	Standard	Monitoring Data by Year		
		2021	2022	2023
Ozone, O_3				
Highest 1-Hour Average, ppm		0.092	0.082	0.077
Days over State Standard	0.09 ppm	0	0	0
Highest 8-Hour Average, ppm		**0.082**	**0.072**	**0.071**
Days over National/State Standards	0.070 ppm	2/2	1/2	1/1
Fine Particulate Matter, $PM_{2.5}$				
Highest 24-Hour Average, µg/m^3		33.8	34.8	37.0
Measured days over National Standard[a]	35 µg/m^3	0	0	1
Annual Average, µg/m^3		8.8	8.3	7.4
Exceed State Standards?	12 µg/m^3	No	No	No
Particulate Matter, PM_{10}				
Highest 24-Hour Average	National/State	68.2/**68.7**	64.2/**64.9**	63.8/**66.0**
Measured Days over National Standard [a]	150 µg/m^3	0	0	0
Measured Days over State Standard [a]	50 µg/m^3	4	2	2
State Annual Average	20 µg/m^3	**20.8**	**20.3**	18.8
Nitrogen Dioxide, NO_2				
Highest 1-Hour Average	National/State	0.024/0.024	0.027/0.027	0.022/0.022
Days over National Standard	0.100 ppm	0	0	0
Days over State Standard	0.18 ppm	0	0	0
National/State Annual Average	0.053/0.030 ppm	0.004/0.003	0.004/*	0.003/0.003

NOTES: µg/m^3 = micrograms per cubic meter; ppm = parts per million.

Generally, state standards are not to be exceeded and national standards are not to be exceeded more than once per year. Values in **bold** are in excess of applicable standard.

a. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored.

* Insufficient data available

SOURCE: CARB 2024a

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 conditions, proximity to emissions sources, and duration of exposure to air pollutants. Schools, hospitals, and convalescent homes are considered relatively sensitive to poor air quality because children, elderly, and infirm persons 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 home for extended periods of time, with greater associated exposure to ambient air quality. Recreational uses are also considered

sensitive because of their greater exposure to ambient air quality conditions, as vigorous exercise places a high demand on the human respiratory system.

The Project site is in a rural area, with nearby properties of primarily agricultural production land uses and designations. Although there are neighboring residences, none are located within 1,000 feet of the Project site. The closest sensitive receptors are four residences adjacent to County Roads 27 and 98, all greater than 1,500 feet from the Project site.

3.3.1.3 Toxic Air Contaminants

According to Section 39655 of the California Health and Safety Code, a *toxic air contaminant* (TAC) is "an air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health." CARB has identified 189 substances known to have or may have adverse effects on human health or the environment, calling them TACs. CARB classified "particulate emissions from diesel-fueled engines" (i.e., diesel particulate matter) (California Code of Regulations Title 17, Section 93000) as a TAC in August 1998. Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two states of matter, gas and particle, both of which contribute to health risks. DPM is emitted from a broad range of diesel engines: on-road diesel engines for trucks, buses, and cars and off-road diesel engines for locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70 percent of all airborne cancer risk in California is associated with DPM (CARB 2024b).

3.3.2 Regulatory Framework

3.3.2.1 Federal

The USEPA is responsible for implementing programs established under the federal Clean Air Act, such as establishing and reviewing the national ambient air quality standards and judging the adequacy of State Implementation Plans. The USEPA 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.

3.3.2.2 State

CARB is responsible for establishing and reviewing the state standards, compiling the California State Implementation Plan and securing approval of that plan from USEPA, conducting research and planning, and identifying TACs. CARB also regulates mobile sources of emissions in California, such as construction equipment, trucks, and automobiles, and oversees the activities of California's air quality management districts, which are organized at the county or regional level. County or regional air quality management districts are primarily responsible for regulating stationary sources at industrial and commercial facilities within their geographic areas and for preparing the air quality plans required by the federal Clean Air Act and California Clean Air Act.

Diesel Risk Reduction Plan

To reduce the cancer risk associated with DPM, CARB adopted the Diesel Risk Reduction Plan in 2000 (CARB 2000). The comprehensive Diesel Risk Reduction Plan aims to mitigate the adverse health effects associated with DPM emissions. The plan encompasses various strategies, including stricter emission standards for new diesel engines, promotion of low-sulfur fuel, and retrofitting of existing engines with

emission control devices. These measures have contributed to a substantial reduction in PM emissions in the state.

Off-Road Diesel Emissions

The CARB In-Use Off-Road Diesel-Fueled Fleets Regulation applies to all self-propelled off-road diesel vehicles 25 horsepower or greater that are used in California, and to most two-engine vehicles (except on-road two-engine sweepers). This includes vehicles that are rented or leased. CARB's goal is to gradually reduce the statewide construction vehicle fleet's emissions through turnover, repowering, or retrofits. New engine emissions requirements were grouped into tiers based on the year in which the engine was built. In 2014, new engines were required to meet Tier 4 Final standards, which are the most stringent emissions standards to date for off-road vehicle engines. The goal of the In-Use Off-Road Diesel-Fueled Fleets Regulation is to reduce emissions of particulate matter (PM_{10} and $PM_{2.5}$) and NO_X from off-road heavy-duty diesel vehicles in California (CARB 2024c). This regulation also limits idling to 5 minutes, requires a written idling policy for larger vehicle fleets, and requires that fleet operators provide information on their engines to CARB and label vehicles with a CARB-issued vehicle identification number.

Air Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

In 2004, CARB adopted the Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling to reduce public exposure to DPM emissions (California Code of Regulations Title 13, Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure prohibits diesel-fueled commercial vehicles from idling for more than 5 minutes at any given location. Although the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also reduces greenhouse gas emissions and saves energy by reducing fuel consumption from unnecessary idling.

3.3.2.3 Local

The Project is located within YSAQMD jurisdiction. The YSAQMD is responsible for achieving and maintaining healthy air quality for its residents by monitoring air quality, developing and implementing air pollution control programs, regulating emissions from businesses and industries, and educating the public about air quality issues.

The YSAQMD has adopted ozone and PM attainment plans to achieve federal and state air quality standards and comply with federal and California Clean Air Act requirements (YSAQMD 2024a, 2024b). The YSAQMD continuously monitors its progress in implementing ozone and PM attainment plans and must periodically report to USEPA and CARB. The YSAQMD, in partnership with the other four air districts in the Sacramento metropolitan area (Sacramento Metropolitan Air Quality Management District, Feather River Air Quality Management District, Placer County Air Pollution Control District, and El Dorado County Air Quality Management District) as well as CARB and the Sacramento Area Council of Governments, periodically revises its attainment plans to reflect new conditions and requirements in accordance with schedules mandated by the California Clean Air Act and Clean Air Act. The YSAQMD is within the boundaries of the Sacramento Federal Non-attainment Area designated by the USEPA for ozone and $PM_{2.5}$ (YSAQMD 2024b).

The YSAQMD's CEQA Guidelines, the *Handbook for Assessing and Mitigating Air Quality Impacts,* is a comprehensive framework for assessing the potential air quality implications of proposed projects within its jurisdiction (YSAQMD 2007). These guidelines, which establish rigorous criteria to evaluate the significance of adverse air quality impacts and provide actionable guidance for mitigation, were used in this analysis.

3.3.3 Applicant-Proposed Measures

PG&E has identified the following Applicant-proposed measures (APMs) to be implemented as part of the Project. Additionally, PG&E would employ standard best management practices, such as minimizing vehicle trips and keeping vehicles and equipment well maintained, during operation of the Project. Section 3.8, *Greenhouse Gas Emissions,* contains additional APMs (i.e., GHG-1 and GHG-2), which would also reduce air pollutant emissions.

- **APM AIR-1: Dust Control During Construction.** Fugitive dust will be controlled by implementing the following measures:
  - Water or cover all exposed surfaces with the potential of dust-generating with coarse rock to reduce the potential for airborne dust from leaving the site;
  - Limit the simultaneous occurrence of more than two ground disturbing construction phases on the same area at any one time. Phase activities to reduce the amount of disturbed surfaces at any one time;
  - Cover all haul trucks entering/leaving the site and trim their loads as necessary;
  - Use wet power vacuum street sweepers to sweep all paved access roads, parking areas, staging areas, and public roads adjacent to project sites on a daily basis (at minimum) during construction. The use of dry power sweeping is prohibited;
  - Wash off all trucks and equipment, including their tires, prior to leaving project sites;
  - Apply gravel or non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at project sites;
  - Water and/or cover soil stockpiles daily;
  - Limit all vehicle speeds to fifteen (15) miles per hour (mph) or less on unpaved areas;
  - Implement dust monitoring in compliance with the standards of the local air district; and
  - Halt construction during any periods when wind speeds are in excess of 50 mph.
- **APM AIR-2: Construction Equipment Engines.**
  - Equipment used during construction will abide by the CARB requirement that only Tier 4 Final or cleaner engines may be added to large and medium fleets starting January 1, 2024.

3.3.4 Environmental Impacts

3.3.4.1 Methodology and Assumptions

Project impacts on air quality were evaluated against the CEQA significance criteria, as discussed below. This section describes the methodology and assumptions used to estimate the Project's potential impacts from its construction activities. Project construction is scheduled to begin in 2026 and to last for

approximately 30 months. The operation and maintenance activities required for the upgraded substation would not change from those currently required for the existing substation; no operational impacts on air quality would occur or are evaluated as part of this analysis. Therefore, the following impact analysis focuses on construction activities that would be required to upgrade the substation as described in Chapter 2, *Project Description*.

Project construction emissions were estimated using the California Emissions Estimator Model, Version 2022.1. This model uses widely accepted methodologies and data to quantify emissions estimates that include the emission factors from CARB's Emission Factor model and its OFFROAD 2017 model. The Applicant provided input data for construction emissions, including the Project-specific location information, equipment list, hours of operation, schedule, and estimated vehicle trip quantities and lengths, to allow the model to be adjusted to account for the Project-specific periodic use of equipment. APM AIR-2 does not commit to using only Tier 4 Final equipment at the Project site; therefore, the emissions estimates assume an aggregated fleet (average) emission factor for each type of equipment used. The emissions modeling results are presented in the PEA Appendix B, *Emissions Calculations* (PG&E 2024a). Fugitive dust emissions estimates account for implementation of the dust control measure in APM AIR-1 with the assumption that watering would be conducted two times per day on exposed surfaces.

In addition to criteria air pollutants, the Project would generate TACs, primarily DPM emissions, from construction equipment and heavy-duty trucks. The YSAQMD has not established updated guidance for evaluating construction-related TACs since 2007. Therefore, this analysis uses recent guidance developed by the Bay Area Air Quality Management District—a district adjacent to the YSAQMD—to determine the significance of TACs. The Bay Area Air Quality Management District recommends that projects be evaluated quantitatively with a health risk assessment when located within 1,000 feet of a sensitive receptor, and that projects farther than 1,000 feet from sensitive receptors be evaluated qualitatively (BAAQMD 2023).

3.3.4.2 Direct and Indirect Impacts

Criterion a) Whether the project would conflict with or obstruct implementation of the applicable air quality plan: *No Impact.*

The YSAQMD is responsible for managing local air quality in the Project area by administering federal and California air pollution control programs and ensuring attainment and maintenance of the ambient air quality standards. The air district has established air quality attainment plans to address non-attainment standards as detailed in Section 3.3.2.3, *Local*. They address all existing and forecast ozone precursor-producing activities and PM within the YSAQMD to achieve attainment and maintenance of the ambient air quality standards.

The Project would not alter the land use plans for the area and would not result in notable population or employment growth beyond what is currently accounted for in the air quality plans. Emissions would be generated by the Project primarily during construction activities and would mostly cease upon the completion of construction. Construction emissions represent a small fraction of the regional emission inventories included in the applicable air quality plans. Because Project construction would be conducted in compliance with all applicable air district rules and regulations, no inconsistencies would occur

between the Project and applicable air quality plans. This ensures that activities would remain consistent with YSAQMD efforts to achieve attainment and maintenance of the standards (YSAQMD 2007).

Additionally, as shown in **Table 3.3-3**, ***Estimated Criteria Pollutant Emissions During Construction***, under Criterion b), the Project's criteria air pollutant emissions generated during construction would be less than the significance thresholds established by the YSAQMD to identify a cumulatively considerable net increase of any criteria pollutant. Also, the Project's APM AIR-1 would support the air district's planning efforts to reduce particulate matter emissions. Construction emissions would not 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.

TABLE 3.3-3
ESTIMATED CRITERIA POLLUTANT EMISSIONS DURING CONSTRUCTION

Criteria Pollutant[a]	Average Daily Max (lb/day)	Annual (tons/year)	Applicable YSAQMD Significance Threshold	Significant?
ROG	3.08	0.56	10 tons/year	**No**
NO_x	25.8	4.71	10 tons/year	**No**
PM_{10}	21.7	3.96	80 lbs/day	**No**
CO	24.5	4.47	-	-
$PM_{2.5}$	3.06	0.56	-	-
SO_2	0.07	0.01	-	-

NOTES: CO = carbon monoxide; lb = pounds; NO_X = oxides of nitrogen; PM_{10} = particulate matter less than or equal to 10 microns in diameter; $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter; ROG = reactive organic gases; SO_2 = sulfur dioxide; - = there is no applicable numerical YSAQMD significance threshold.

SOURCE: PG&E 2024a, Appendix B

The Project's construction emissions would not substantially contribute to regional emissions and would not conflict with the applicable air quality plans. In addition, construction of the Project would be conducted in compliance with applicable air district rules and regulations. Therefore, the Project would not conflict with or obstruct implementation of the applicable air quality plans, and **no impact** would occur.

Criterion b) Whether the project would 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.*

The Project's construction activities would require the use of off-road construction equipment and on-road vehicles, which would generate criteria air pollutants that could contribute to violations of the ambient air quality standards for ozone and PM. Table 3.3-3 summarizes the anticipated maximum emissions that would occur during construction and compares them to the applicable significance thresholds. As shown in Table 3.3-3, estimated construction-related emissions of all criteria air pollutants would be below the respective significance thresholds. The air district does not have recommended daily or annual thresholds for CO, $PM_{2.5}$, and SO_2 (YSAQMD 2007). Thresholds for CO and SO_2 are not needed because those pollutants are not a regional concern in the air district, and emissions of $PM_{2.5}$ are evaluated relative to consistency with the air district's attainment plans to achieve the federal 24-hour

standard. As described under Criterion a), there would be no inconsistencies between the Project and applicable air quality plans.

Therefore, construction of the Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment status under an applicable federal or state ambient air quality standard. The cumulative impact with respect to criteria air pollutant emissions would be **less than significant**.

Criterion c) Whether the project would expose sensitive receptors to substantial pollutant concentrations: *Less-than-Significant Impact.*

The use of off-road diesel equipment during Project construction would result in the temporary and short-term generation of DPM emissions. The vicinity of the Project site is used primarily for agricultural production and is currently zoned for agriculture. The closest neighboring homes and residences are located adjacent to County Roads 27 and 98, all of which are more than 1,500 feet from the Project site. Likewise, no schools, hospitals, parks, other residences, or other sensitive facilities are located within 0.5 mile of the Project site. Additionally, implementation of APM AIR-1 dust control measures, which include controlling fugitive dust, would further reduce sensitive receptors' exposure to particulate matter emissions. Based on the locations of sensitive receptors relative to the Project site and the intensity and duration of construction activities associated with these components, construction of the Project would not pose health risks to existing sensitive receptors in its vicinity.

Because the Project site would be farther than 1,000 feet from the nearest sensitive receptors, a quantitative health risk assessment is not required for the Project (OEHHA 2015). Emissions from the Project would not exceed thresholds, and there are no sensitive receptors in the Project vicinity. Therefore, impacts would be **less than significant**.

Criterion d) Whether the project would result in other emissions (such as those leading to odors) adversely affecting a substantial number of people: *Less-than-Significant Impact.*

Odors would be generated from vehicles and equipment exhaust emissions during construction of the Project. However, the Project's associated infrastructure upgrades would not produce objectionable odors. Odors generated during Project construction activities would be temporary and localized and would disperse and dissipate; thus, the Project would not cause substantial odors at nearby properties, currently zoned for agriculture, with the nearest sensitive receptors all located more than 1,500 feet away. Therefore, odors associated with construction would not result in a nuisance to sensitive receptors or any surrounding land uses, and the associated impact would be **less than significant**.

3.3.5 References

BAAQMD (Bay Area Air Quality Management District). 2023. *California Environmental Quality Act Air Quality Guidelines Appendix E: Recommended Methods for Screening and Modeling Local Risks and Hazards*. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/appendix-e-recommended-methods-for-screening-and-modeling-local-risks-and-hazards_final-pdf.pdf?rev=b8917a27345a4a629fc18fc8650951e4&sc_lang=en. Accessed October 2024.

CARB (California Air Resources Board). 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.* October 2000. Available: https://ww2.arb.ca.gov/sites/default/files/classic/diesel/documents/rrpfinal.pdf. Accessed September 2024.

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PG&E (Pacific Gas and Electric Company). 2024b. Data Request 1, Plainfield Substation Upgrade Project CEQA Evaluation. August 2, 2024.

YSAQMD (Yolo-Solano Air Quality Management District). 2007. *Handbook for Assessing and Mitigating Air Quality Impacts*. Adopted July 11, 2007. Available: https://www.ysaqmd.org/wp-content/uploads/Planning/CEQAHandbook2007.pdf. Accessed October 2024.

YSAQMD (Yolo-Solano Air Quality Management District). 2021. "Attainment Status." Available: https://www.ysaqmd.org/plans-data/attainment/. Accessed October 2024.

YSAQMD (Yolo-Solano Air Quality Management District). 2024a. "Planning for Ozone Standards." Available: https://www.ysaqmd.org/plans-data/planning-for-ozone-standards/. Accessed October 2024.

YSAQMD (Yolo-Solano Air Quality Management District). 2024b. "Planning for Particulate Standards." Available: https://www.ysaqmd.org/plans-data/particulates/. Accessed October 2024.

3.4 Biological Resources

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
IV.	**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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
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?	☐	☐	☒	☐
g)	Would the project create a substantial collision or electrocution risk for birds or bats?	☐	☒	☐	☐

3.4.1 Data Sources/Methodology

This section examines the potential impacts of the Project related to biological resources. This analysis is supported in part by PG&E's Proponent's Environmental Assessment (PG&E 2024), which contains the biological resources technical report prepared by ERM (PG&E 2024). ERM biologists identified biological resources within the Project site during a field reconnaissance conducted on March 22, 2023. Before the survey, the biologists reviewed pertinent literature and conducted database queries for the Project site and surrounding areas. The survey consisted of traveling on foot throughout the proposed construction work areas. The biological resources survey focused on identifying habitat for special-status plant and wildlife species, although general habitat conditions were noted, and incidental species observations were recorded. ESA biologists also performed a general site visit on January 9, 2024.

The land cover observed on the Project site was compared to the habitat requirements of the regionally occurring special-status species to determine which of these species have the potential to occur on or adjacent to the Project site. Plant nomenclature follows *The Jepson Manual: Vascular Plants of California (Second Edition)* (Baldwin et al. 2012).

This section references the following primary data sources:

- U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation list (USFWS 2024).
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CDFW 2024a).

  California Native Plant Society Inventory of Rare Plants and Endangered Plants known to occur in the nine U.S. Geological Survey 7.5-minute topographic quadrangles that include and surround the Project: Madison, Woodland, Gray's Bend, Winters, Merritt, Davis, Allendale, Dixon, and Saxon (CNPS 2024).

The biological resources study area includes the entire Project site and considers the nesting raptors that could be present within 0.5 mile of the site and affected by construction activities.

3.4.2 Environmental Setting

3.4.2.1 Natural Communities/Land Cover Types

Based on the site visit by ERM biologists, four natural community types/land cover types were observed within the Project site: agricultural, developed/disturbed, ruderal, and agricultural/roadside ditch. **Figure 3.4-1**, ***Land Cover***, shows the distribution of natural community/land cover types present on the Project site. Each of these natural community/land cover types is described below.

Agricultural Fields

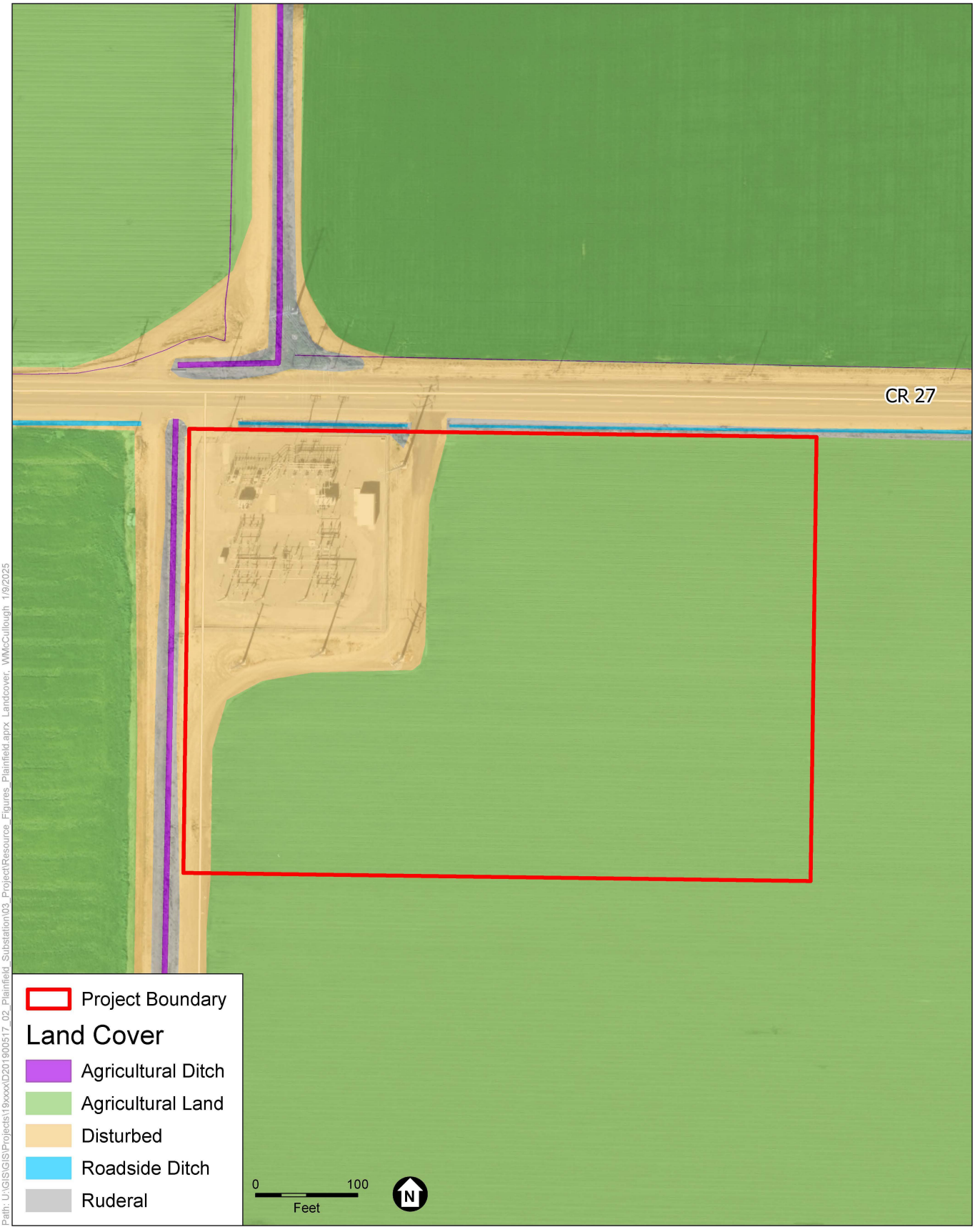
The dominant land cover type on the Project site is general agriculture (see Figure 3.4-1). "General agriculture" is an anthropogenic land cover type that does not have a state sensitivity ranking. Farming practices in such areas include soil disking and tilling, crop planting/production, and herbicide application, as well as regular maintenance and disturbance of areas under agricultural production. Historically, agricultural production on the Project site has included row crop agricultural production of wheat and grazing fodder. Both active croplands and fallow fields are present on the Project site.

Developed/Disturbed

Disturbed lands on the Project site include the existing substation, County Road 27, and access roads to the adjacent farms. The approximately 0.9-acre substation has a gravel base with paved internal roads. County Road 27 runs along the northern boundary of the existing and proposed substation site. All of these areas lack vegetation and are paved or covered in gravel.

Ruderal

Ruderal grassland occurs primarily in narrow strips along the levee slopes present within the study area and along the agricultural field boundaries. Commonly occurring wildlife species typically associated with ruderal grassland habitat include western fence lizard (*Sceloporus occidentalis*), northern alligator lizard (*Elgaria coerulea*), California ground squirrel (*Otospermophilus beecheyi*), black-tailed jackrabbit (*Lepus californicus*), mourning dove (*Zenaida macroura*), and white-crowned sparrow (*Zonotrichia leucophrys*).



Source: ESA, 2024

Plainfield Substation Upgrade Project

Figure 3.4-1
Land Cover

ESA

Agricultural and Roadside Ditches and Culverts

An agricultural ditch occurs directly adjacent to the Project site, and a roadside ditch lies partly within the site. These ditches and culverts sometimes contain water, which allows them to act as shallow aquatic habitat. Therefore, hydrophytic vegetation is growing within them as seen by Environmental Science Associates (ESA) biologists during a site visit.

3.4.2.2 Special-Status Species

Table A-1, *Special-Status Species Considered in the Project Area*, in **Appendix A** identifies the special-status plant and wildlife species that occur in the Project vicinity based on review of the Proponent's Environmental Assessment (PG&E 2024), California Natural Diversity Database (CDFW 2024a), California Native Plant Society, and USFWS databases (USFWS 2024), as well as vegetation, soils, elevation, and other factors. **Figure 3.4-2**, ***Special-Status Species Observations***, shows the special-status wildlife species recorded within 5 miles of the Project site (CDFW 2024a).

Species with moderate or higher potential to occur, or those for which surveys were conducted on-site, are discussed below (Appendix A).

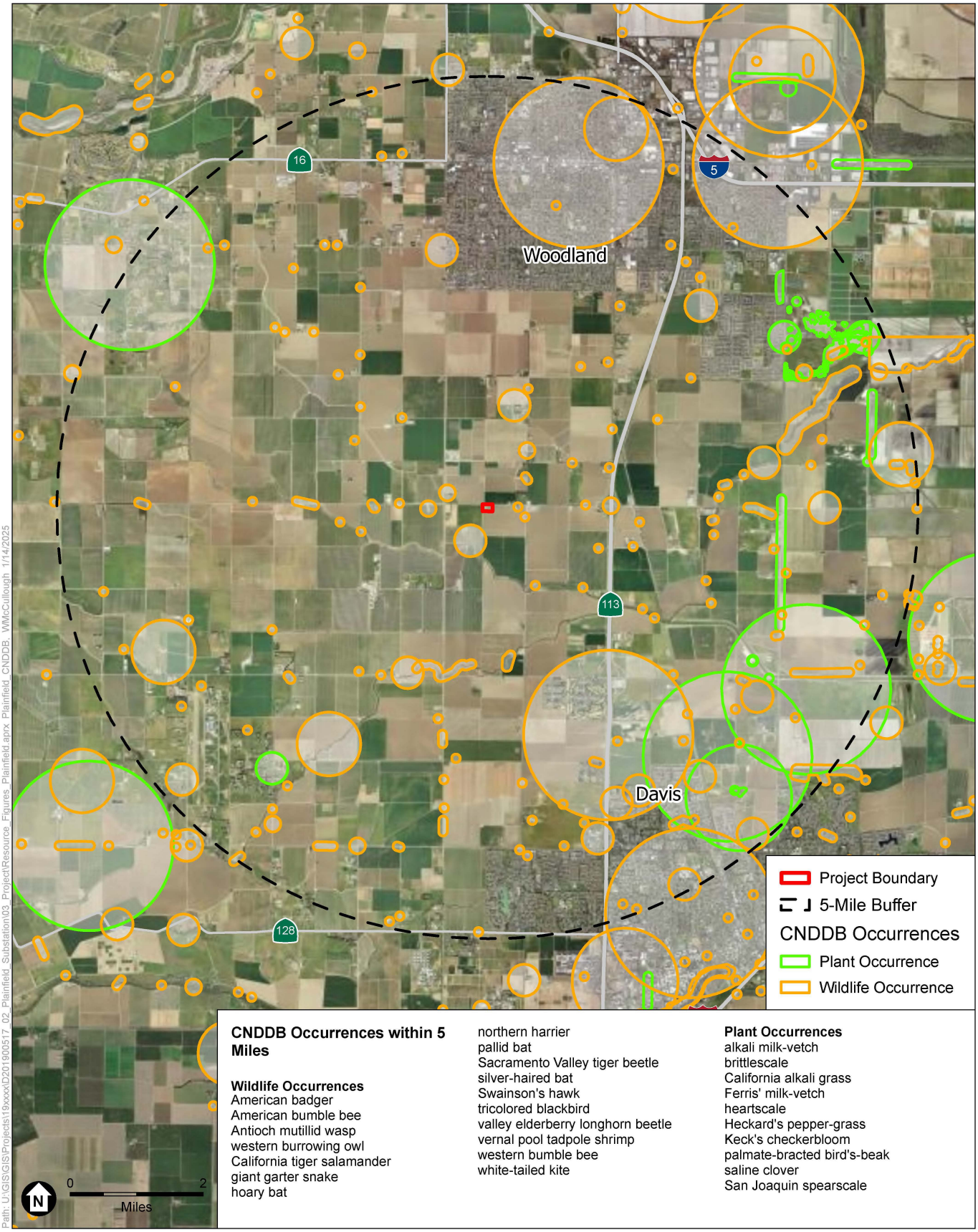
Tricolored Blackbird

Tricolored blackbird (*Agelaius tricolor*) is a state-listed threatened species. Its range is throughout the Central Valley, and it breeds near fresh water, typically in northeastern California. This species forages in grasslands and cropland habitats, and feeds primarily on insects, seeds, and cultivated grains. These birds build their nests usually in dense cattails out of mud and plant materials and can forage up to 4 miles away from their nesting sites (Zeiner et al. 1990).

The tricolored blackbird occurs in the Project region and may occasionally occur near the Project site in a non-nesting, foraging capacity. Six California Natural Diversity Database records are within 5 miles of the site (CDFW 2024a). The Project site does not offer nesting habitat because the site lacks the necessary vegetation to support their nests, but it does provide suitable foraging habitat in the agricultural fields that surround the existing substation. The nearest identified potential nesting habitat occurs at Willow ~~Creek~~ Slough, about 0.5 mile south of the Project site. Although the species may sporadically forage within agricultural lands near the Project site, the likelihood of encountering active tricolored blackbird nests on or near the site is considered low.

Western Burrowing Owl

The western burrowing owl (*Athene cunicularia hypugea*) is currently a candidate for listing under the California Endangered Species Act. This species was petitioned for state listing in 2024 and it is presently under evaluation (CDFW 2024b). Burrowing owls are yearlong residents of open, dry grassland and desert habitats, and in the grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitats (Zeiner et al. 1990). This species' preferred habitat is generally short, sparse vegetation with few shrubs, level to gentle topography, and well-drained soils. Burrowing owls require small-mammal burrows for nesting, roosting, cover, and catching prey; they do not dig their own burrows. In California, burrowing owls most commonly live in burrows created by California ground squirrels. Burrowing owls may occur in disturbed landscapes such as agricultural areas, ruderal grassy fields, vacant lots, and pastures where usable burrows are present, provided suitable foraging habitat occurs nearby. Debris piles, riprap, culverts, and pipes may be used as burrow substitutes.



CNDDB Occurrences within 5 Miles

Wildlife Occurrences
American badger
American bumble bee
Antioch mutillid wasp
western burrowing owl
California tiger salamander
giant garter snake
hoary bat
northern harrier
pallid bat
Sacramento Valley tiger beetle
silver-haired bat
Swainson's hawk
tricolored blackbird
valley elderberry longhorn beetle
vernal pool tadpole shrimp
western bumble bee
white-tailed kite

Plant Occurrences
alkali milk-vetch
brittlescale
California alkali grass
Ferris' milk-vetch
heartscale
Heckard's pepper-grass
Keck's checkerbloom
palmate-bracted bird's-beak
saline clover
San Joaquin spearscale

Source: ESA, 2024; CDFW, 2024

Plainfield Substation Upgrade Project

Figure 3.4-2
Special-Status Species Observations

ESA

Although the burrowing owl has experienced population reduction over the extent of its range, the species' range remains wide. The Central Valley population has remained sizable, largely because of its ability to occupy agricultural lands and other disturbed habitats (Shuford and Gardali 2008).

Eight burrowing owl records are reported 3–5 miles from the Project site, with the nearest being 3.5 miles away (CDFW 2024a). Disked and actively cultivated agricultural lands on and near the Project site limit underground habitat for burrowing owls. This species may occur sporadically near the Project site in a non-nesting foraging capacity; however, the site and adjacent areas lack burrows or structure to support burrowing owl nesting (PG&E 2024). Therefore, this species is considered to have a low likelihood to occur on the Project site.

Swainson's Hawk

Swainson's hawk (*Buteo swainsoni*) is a state-listed threatened species. In California, this species nests in the Central Valley, the Klamath Basin, the Northeastern Plateau, Lassen County, and the Mojave Desert. It breeds in stands with few trees in riparian areas, agricultural environments, oak savanna, and juniper-sage flats (Zeiner et al. 1990). Swainson's hawks forage in adjacent grasslands or livestock pastures. In the Central Valley, they nest in riparian areas and in isolated tree clusters, often near rural residences or agricultural fields, and on structures such as power poles. Swainson's hawk historically occupied much of the state, but the species' range is now largely restricted to the Central Valley, and breeding populations in this area have declined because of the loss of suitable foraging and nesting habitat.

Three occurrences of nesting Swainson's hawks were located within 0.25 mile south and east of the Project site: one nest in a valley oak in 1991 and two nests in trees of nearby farmyards in 2004. Although a focused Swainson's hawk survey was not conducted, hundreds of records are reported within 5 miles of the Project site (CDFW 2024a). This species typically prefers to nest within a grove or lines of trees but will nest in smaller or isolated trees when higher quality nesting habitat is absent. Suitable nesting habitat for Swainson's hawk is present in a eucalyptus grove about 1,300 feet east of the Project site and in the trees that line Willow ~~Creek~~ Slough, about 0.5 mile south of the Project (PG&E 2024).

Furthermore, a Swainson's hawk conservation easement managed by the City of Woodland and the Yolo County Land Trust is located west of the Project site. Suitable foraging habitat for Swainson's hawk is present in the site's agricultural fields. Although this species is unlikely to nest on the Project site because of the lack of tall trees, there is moderate potential for Swainson's hawk to occur on-site because of the presence of suitable foraging habitat in the agricultural fields.

Giant Garter Snake

The giant garter snake (*Thamnophis gigas*) is both federally listed and state-listed as threatened. Its historic range was once the Sacramento and San Joaquin valleys, but that range has been significantly reduced. Aquatic garter snakes have had their populations decimated or entirely eliminated because of the reduction of natural sloughs and marshy areas and the heavy use of pesticides. This species forages along streams and preys on fish, amphibians, and amphibian larvae. During the hotter parts of the year, this species is most active and spends most of its time in aquatic habitat. The giant garter snake's active season is from May to the beginning of October; it is during this time period that the snake is associated with the use of aquatic habitat. These snakes use terrestrial areas during the colder parts of the year for a brumation period. The giant garter snake is diurnal and most active in the mornings and afternoons. It

retreats to holes and mammal burrows at night or during very hot days. Otherwise, it can typically be found on emergent vegetation such as cattails and tules (Zeiner et al. 1990).

According to the Yolo County Flood Control & Water Conservation District, surface water deliveries for irrigation ditches within the Project site typically start around late March or early April and extend through the first 2 weeks of October (Sicke, pers. comm., 2024). Although the identified ditch features within and around the Project site would likely only contain water naturally on an episodic basis after precipitation events, the ditches are managed to convey irrigation water to support nearby agricultural operators. Therefore, the ditches would be expected to be inundated during the giant garter snake's active season, May–October.

The presence of protective emergent vegetative cover that allows for foraging is a core habitat component for giant garter snakes identified by USFWS (2017). Limited vegetative cover is present along the ditch that runs along the western margin of the Project site, and effectively no emergent vegetation can be observed along the ditch that runs along the south side of County Road 27. The minimal ground squirrel activity and associated burrows noted within the Project site also reduce the site's suitability to provide upland terrestrial habitat for the species. Given these observations, the Project site is considered to provide only marginal habitat suitability for the giant garter snake.

The ditch habitat within the Project site was also evaluated for its potential to be a movement corridor for giant garter snakes (i.e., individual snakes en route to more preferable habitat patches). Giant garter snakes may use features such as inundated canals and ditches to move between suitable seasonal wetland and rice field patches (USFWS 2017). Some individuals may move up to 5 miles over a period of several days if the conditions of their habitat become unsuitable (East Contra Costa County Habitat Conservation Plan Association 2006).

Accordingly, USFWS's recovery plan for giant garter snakes aims for pair blocks of adequately sized wetland and/or rice field patches to be sited within 5 miles of each other to allow giant garter snake individuals to move between these habitat patch blocks (USFWS 2017). Observations of this species within Yolo County are concentrated on the eastern margin of the county, within the Colusa Basin and Yolo Bypass where rice is a dominant crop type (Yolo Habitat Conservancy 2018). The nearest documented California Natural Diversity Database occurrence of the species is located 4.5 miles east of the Project site (CDFW 2024a).

Because the known recent observations of giant garter snake are located along the eastern edge of the county, when the giant garter snake habitat model for the countywide Yolo Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP) was prepared, the spatial model parameters consequently focused only on regions east of State Route 113 and Interstate 5 (the Project site is located approximately 1.5 miles west of State Route 113). The Project site is not proximal to any large wetland habitat or rice fields, and the location does not appear to be within a key movement corridor for the species (i.e., it is not located between two large wetland or rice field patches separated by 5 miles or fewer); therefore, the likelihood that giant garter snake individuals will use ditch habitat within the Project site as a movement corridor is considered to be low.

Western Pond Turtle

The western pond turtle (*Actinemys marmorata*) is a CDFW species of special concern. It can be found in aquatic habitats throughout California, west of the Sierra-Cascade region. This species is omnivorous and eats aquatic plant materials, such as pond lilies, as well as beetles and aquatic invertebrates. Additionally, the species needs basking sites such as partially submerged logs and stones. The species nests along streams and requires at least 4-inch-deep soil to create the necessary humid conditions for its eggs to develop and hatch correctly. Predators of this species include fishes, bullfrogs, garter snakes, birds, and some mammals (Zeiner et al. 1990).

Western pond turtles spend most of the warmer months (April–September) in aquatic habitats that provide favorable environments for foraging, mating, basking, and predator avoidance (CDFW 2025; Germano and Rathbun 2008). Although the ditches within and around the Project site would be expected to be inundated throughout the period when western pond turtles are most associated with the use of aquatic habitats, these ditches only represent marginal habitat for the species. The lack of ideal basking sites (e.g., rocks, logs, floating aquatic vegetation within the aquatic habitat) and the low amount of emergent vegetation observed during ESA's January 2024 site visit contribute to the ditches representing only marginal habitat for the species.

During development of the Yolo HCP/NCCP, a countywide habitat suitability model for western pond turtle was developed based on the distribution of land cover types that were known to support habitat for this species; the model is conservative as it likely overestimates the extent of suitable aquatic habitat for the species (Yolo Habitat Conservancy 2018). This modeling output from the HCP/NCCP did not identify the ditches adjacent to or within the Project site to be aquatic habitat for western pond turtle (Yolo Habitat Conservancy 2018).

Based on the above considerations, although there is a remote possibility that turtles may temporarily transit through the Project site within inundated ditch habitat, the likelihood of this occurrence is expected to be fairly low.

3.4.3 Regulatory Framework

3.4.3.1 Federal

Federal Endangered Species Act

The federal Endangered Species Act of 1973 (FESA) and subsequent amendments (United States Code [USC] Title 16, Sections 1531–1543) provide guidance for the conservation of endangered and threatened species and the ecosystems upon which they depend. In addition, FESA defines species as threatened or endangered and provides regulatory protection for listed species. The law also provides a program for the conservation and recovery of threatened and endangered species and the conservation of designated critical habitat that USFWS determines to be required for the survival and recovery of these listed species.

FESA Section 9 lists actions that are prohibited under FESA. The definition of *take* is to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Although unauthorized take of a listed species is prohibited, take may be allowed when it is incidental to an otherwise legal activity. Section 9 prohibits take of listed species of fish, wildlife, and plants without

special exemption. The definition of *harm* includes significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns related to breeding, feeding, or shelter. *Harass* is defined as actions that create the likelihood of injury to listed species by significantly disrupting normal behavioral patterns related to breeding, feeding, and shelter.

FESA Section 10 provides a means whereby a nonfederal action with the potential to result in take of a listed species can be allowed under an incidental take permit.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (USC Title 16, Sections 703–711) is the domestic law that affirms and implements a commitment by the United States to four international conventions (with Canada, Mexico, Japan, and Russia) for the protection of a shared migratory bird resource. Unless and except as permitted by regulations, the Migratory Bird Treaty Act prohibits the intentional pursuit, hunting, taking, capture, or killing of migratory birds anywhere in the United States. The law also applies to the disturbance and removal of nests occupied by migratory birds or their eggs during the breeding season, whether intentional or incidental.

Bald and Golden Eagle Protection Act

The federal Bald and Golden Eagle Protection Act of 1940 (USC Title 16, Section 668) protects bald and golden eagles by prohibiting the taking, possession, and commerce of such birds and establishes civil penalties for violations. *Take* of bald and golden eagles includes to "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb" (USC Title 16, Section 668[c]). *Disturb* means to agitate or bother a bald or golden eagle to a degree that causes or is likely to cause, based on the best scientific information available, either: (1) injury to an eagle; (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior (*Federal Register* Title 72, Page 31132, June 5, 2007; Code of Federal Regulations Title 50, Section 22.3).

Clean Water Act

The federal Clean Water Act (CWA) was enacted as an amendment to the federal Water Pollution Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to waters of the United States. The CWA serves as the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands.

On May 25, 2023, the Supreme Court substantially limited the CWA's scope in its ruling on *Sackett v. EPA*. The court redefined the law's coverage of waters of the United States by citing the earlier *Rapanos v. United States* decision, which stated that the CWA's use of "waters" encompasses "only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic[al] features' that are described in ordinary parlance as 'streams, oceans, rivers, and lakes.'" The *Rapanos v. United States* decision goes on to state: "To determine when a wetland is part of adjacent 'waters of the United States,' the Court agrees with the Rapanos plurality that the use of 'waters' in §1362(7) may be fairly read to include only wetlands that are 'indistinguishable from waters of the United States.'" This occurs only when wetlands have "a continuous surface connection to bodies that are 'waters of the United States' in their own right, so that there is no clear demarcation between 'waters' and wetlands" (*Rapanos v. United*

States). The Supreme Court concluded that "In sum, the CWA extends to only wetlands that are 'as a practical matter indistinguishable from waters of the United States.'"

Clean Water Act, Section 401

Under CWA Section 401, applicants seeking a federal license or a permit for activities that may discharge pollutants into waters of the United States must obtain certification from the state where the discharge would originate or from the relevant interstate water pollution control agency. In California, if no federal permit is required, the State Water Resources Control Board regulates activities occurring in or adjacent to waters of the state under the Porter-Cologne Water Quality Control Act.

Clean Water Act, Section 404

The U.S. Army Corps of Engineers (USACE) administers CWA Section 404 (USC Title 33, Section 1251 et seq.), which regulates activities in wetlands and "other waters of the United States (U.S.)." CWA Section 404 regulates the discharge of dredged and fill materials into waters of the United States. Applicants must obtain a permit from USACE for all discharges of dredged or fill material into waters of the United States, including wetlands, before proceeding with a proposed activity. Waters of the United States are under the jurisdiction of USACE and the U.S. Environmental Protection Agency.

Adhering to CWA Section 404 necessitates compliance with several other environmental laws and regulations. USACE cannot issue an individual permit or verify the use of a general nationwide permit until the requirements of the National Environmental Policy Act, the Endangered Species Act, and the National Historic Preservation Act have been met. In addition, USACE cannot issue or verify any permit until a water quality certification or a waiver of certification has been issued pursuant to CWA Section 401.

3.4.3.2 State

California Endangered Species Act

The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 et seq.) establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA affirms that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives that would avoid jeopardy are available. For projects that would affect a listed species under both FESA and CESA, compliance with FESA would satisfy CESA if CDFW determines that the federal incidental take authorization is "consistent" with CESA under Fish and Game Code Section 2080.1. Before a project may result in lawful take of a species listed under CESA, a take permit must be issued under Section 2081(b).

Fish and Game Code Section 1600 et seq.

Section 1600 et seq. of the Fish and Game Code state that:

> *The Legislature finds and declares that the protection and conservation of the fish and wildlife resources of this state are of utmost public interest. Fish and wildlife are the property of the people and provide a major contribution to the economy of the state, as well as providing a significant part of the people's food supply; therefore their conservation is a proper responsibility of the state. This chapter is enacted to provide conservation for these resources.*

These sections seek to ensure the health of waterways by enforcing penalties for the obstruction, diversion, or substantial change to waterways such as channels, beds, banks, rivers, streams, or lakes. They also prohibit the disposal of debris, waste, or material containing crumbled, flaked, or ground pavement into any aforementioned waterways or locations where they could enter these waterways.

Fish and Game Code Sections 2080 and 2081

Section 2080 of the Fish and Game Code states that:

> *No person shall import into this state* [California]*, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the* [California Fish and Game] *Commission determines to be an endangered species or threatened species, or attempt any of those acts, except as otherwise provided in this chapter, or the Native Plant Protection Act, or the California Desert Native Plants Act.*

Pursuant to Section 2081, CDFW may authorize individuals or public agencies to import, export, take, or possess state-listed endangered, threatened, or candidate species. These otherwise prohibited acts may be authorized through a permit or memorandum of understanding if (a) the take is incidental to an otherwise lawful activity, (b) the individual or public agency minimizes and fully mitigates impacts of the authorized take, (c) the permit is consistent with any regulations adopted pursuant to any recovery plan for the species, and (d) the project operator ensures that adequate funding is available to implement the measures that CDFW requires. CDFW makes this determination based on available scientific information and considers the ability of the species to survive and reproduce.

Fish and Game Code Sections 3503, 3503.5, and 3513

These sections of the Fish and Game Code prohibit project operators from conducting activities that would result in any of the following: (a) the take, possession, or destruction of any birds of prey; (b) the take or possession of any migratory nongame bird; (c) the take, possession, or needless destruction of the nest or eggs of any raptors or nongame birds; or (d) the take of any nongame bird, pursuant to Fish and Game Code Section 3800, whether intentional or incidental.

CEQA Guidelines Section 15380

CEQA Guidelines Section 15380(b) states that a species not listed on the federal or state protected species list may still be considered rare or endangered under CEQA if the species meets either of the following criteria:

- Although not presently threatened with extinction, the species exists in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens.
- The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered “threatened” as defined in FESA.

Native Plant Protection Act

California’s Native Plant Protection Act (Fish and Game Code Sections 1900–1913) requires all state agencies to use their authority to carry out programs to conserve endangered and rare native plants. Provisions of this law prohibit the taking of endangered or rare plants from the wild and require that CDFW be notified at least 10 days in advance of any change in land use in areas that support listed plants.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code Section 13260) requires "any person discharging waste, or proposing to discharge waste, in any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements)." The State Water Resources Control Board regulates the protection of waters of the state under Water Code Section 13050[e]. This law defines *waters of the state* as "any surface water or groundwater, including saline waters within the boundaries of the state." Under this definition, isolated wetlands that may not be subject to regulations under federal law are considered waters of the state and regulated accordingly. This law defines *wetlands* as:

> *An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.*

Waters of the state include all waters of the United States. The following wetlands are waters of the state:

1. *Natural wetlands,*
2. *Wetlands created by modification of a surface water of the state, and*
3. *Artificial wetlands that meet any of the following criteria:*
    a. *Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;*
    b. *Specifically identified in a water quality control plan as a wetland or other water of the state;*
    c. *Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or*
    d. *Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):*
        i. *Industrial or municipal wastewater treatment or disposal,*
        ii. *Settling of sediment,*
        iii. *Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,*
        iv. *Treatment of surface waters,*
        v. *Agricultural crop irrigation or stock watering,*
        vi. *Fire suppression,*
        vii. *Industrial processing or cooling,*

viii. *Active surface mining – even if the site is managed for interim wetlands functions and values,*

ix. *Log storage,*

x. *Treatment, storage, or distribution of recycled water, or*

xi. *Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or*

xii. *Fields flooded for rice growing.*

3.4.3.3 Local

Yolo County 2030 Countywide General Plan

The Yolo County 2030 General Plan (Yolo County 2009) outlines several policies intended for the protection of biological resources countywide. The following goal and policies from the *Conservation and Open Space* and *Agriculture and Land Use* elements apply to the Project:

Goal CO-2: Biological Resources. Protect and enhance biological resources through the conservation, maintenance, and restoration of key habitat areas and corresponding connections that represent the diverse geography, topography, biological communities, and ecological integrity of the landscape.

***Policy CO-2.1*:** Consider and maintain the ecological function of landscapes, connecting features, watersheds, and wildlife movement corridors.

***Policy CO-2.3*:** Preserve and enhance those biological communities that contribute to the county's rich biodiversity, including blue oak and mixed oak woodlands, native grassland prairies, wetlands, riparian areas, aquatic habitat, agricultural lands, heritage valley oak trees, remnant valley oak groves, and roadside tree rows.

***Policy CO-2.4*:** Coordinate with other regional efforts (e.g., Yolo County HCP/NCCP) to sustain or recover special-status species populations by preserving and enhancing habitats for special-status species.

***Policy CO-2.10*:** Encourage the restoration of native habitat.

***Policy CO-2.16*:** Existing native vegetation shall be conserved where possible and integrated into new development if appropriate.

***Policy CO-2.20*:** Encourage the use of wildlife-friendly Best Management Practices to minimize unintentional killing of wildlife, such as restricting mowing during nesting season for ground-nesting birds or draining of flooded fields before fledging of wetland species.

***Policy CO-2.40*:** Require that impacts to species listed under the State or federal Endangered Species Acts, or species identified as special-status by the resource agencies, be avoided to the greatest feasible extent. If avoidance is not possible, fully mitigate impacts consistent with applicable local, State, and Federal requirements.

***Policy CO-2.42*:** Projects that would impact Swainson's hawk foraging habitat shall participate in the Agreement Regarding Mitigation for Impacts to Swainson's Hawk Foraging Habitat in Yolo County entered into by the CDFG [California Department of Fish and Game, now CDFW] and the Yolo County HCP/NCCP Joint Powers Agency, or satisfy other subsequent adopted mitigation requirements consistent with applicable local, state, and federal requirements.

3.4.3.4 Yolo County Habitat Conservation Plan/Natural Community Conservation Plan

The Yolo County HCP/NCCP provides conservation for 12 species, including Swainson's hawk. The Yolo Habitat Conservancy completed the plan in 2018 and began implementation on January 11, 2019. The plan provides take coverage and associated mitigation for infrastructure (e.g., roads and bridges) and development activities (e.g., agricultural facilities, housing, and commercial buildings) planned for construction over the next 50 years in Yolo County. The plan conserves 8,000 acres of habitat and coordinates conservation efforts for these lands.

3.4.4 Applicant-Proposed Measures

Applicant-proposed measures (APMs) and Multi-Regional Habitat Conservation Plan (MRHCP) field protocols have been identified by PG&E that relate to biological resources.

3.4.4.1 Applicant-Proposed Measures

- **APM BIO-1: Work Area Minimization.** The number of access routes, staging areas, and total area of the work sites will be kept to the minimum necessary.
- **APM BIO-2: Erosion and Sediment Control Measures.** A Stormwater Pollution Prevention Plan (SWPPP) will be implemented to ensure effective erosion and sediment control measures will be in place at all times during construction.
- **APM BIO-3: Weed Management.** To prevent the spread of noxious weeds, only equipment which has been washed and is free of caked on mud, dirt, and other debris, which could house plant seeds, will be allowed in the project area.
- **APM BIO-4: Avoidance of Impacts to Wildlife and Natural Habitats.** All work will be done in a manner that minimizes disturbance to wildlife and habitat.
- **APM BIO-5: Litter and Trash Management.** All food waste and associated containers will be disposed of in closed lid containers.
- **APM BIO-6: Maintenance and Refueling.** No vehicle maintenance or refueling will occur within 100 feet of any agricultural or roadside ditches.
- **APM BIO-7: Spill Prevention and Cleanup.** Proper spill prevention and cleanup equipment will be readily available.
- **APM BIO-8: Route limitations.** Vehicles will remain on designated access roads and within designated worksites.
- **APM BIO-9: Pets and Firearms.** No pets or firearms are permitted within the project area.
- **APM BIO-10: Vehicle Speed Limits.** Construction crews will abide by all county road speed limits.
- **APM BIO-11: Backfilling.** Prior to backfilling or placement of structures, all excavation sites (e.g., holes excavated for pole butts, trenches, etc.) will be inspected to ensure no small vertebrates have been entrapped. All excavations with a potential for entrapment of wildlife will be backfilled or fully covered at the end of the workday. Alternatively, holes or trenches will include one or more escape ramps constructed of earth fill or wooden planks no less than 10 inches wide and reaching to bottom of trench at the close of each working day.

- **APM BIO-12: Nesting Bird Impact Avoidance and Protection.** If construction work is scheduled during the nesting season (1 February through 31 August), nest detection surveys will correspond with a standard buffer for individual species in accordance with the species-specific buffers set forth in Appendix I of the PEA [Proponent's Environmental Assessment] and will occur within 15 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 15 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 I 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 I. The acclimation of nesting pairs 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-13: Avoidance and Minimization of Potential Impacts on Swainson's Hawk and White-Tailed Kite.** If construction activities are scheduled to occur during the nesting season (1 February to 31 August), a preconstruction survey for nesting Swainson's hawk and/or white-tailed kite will be conducted within 0.5 mile of the project area by a qualified biologist. If active nests are found, a qualified biologist will designate an appropriate buffer between construction activities and the nest to avoid disturbance to the nesting. A qualified biologist will monitor the active nest(s) to confirm that activities associated with the Project are not disturbing or disrupting nesting or breeding activities and adjust the buffer distance as necessary. Work within an established buffer will not proceed until the nestlings have fledged or the nest becomes inactive.

- **APM BIO-14: Biological Resources Worker Environmental Awareness Program (WEAP).** The applicant shall develop a WEAP. Prior to the start of construction, all construction crew members and contractors shall be required to attend the WEAP training presented by a qualified biologist. All construction crew members and contractors who attend the training shall sign a form indicating that they attended the training and understood the information. Follow-up training shall be conducted as needed; new workers shall attend WEAP training prior to beginning at the work site.

  The WEAP training shall include a review of the special status species and other sensitive resources (e.g., nesting birds) that could exist in the project area, the locations where sensitive biological resources do or may occur, the limits of the work area, applicable laws and regulations, penalties for non-compliance, and any APMs to be implemented for avoidance of these sensitive resources. Additionally, personnel shall be trained for situations where it is necessary to contact a qualified biologist (e.g., should any sensitive biological resources such as an active nest be found during construction). If sensitive resources are found, the qualified biologist shall provide guidelines for the personnel to avoid impacts on them. All WEAP participants shall receive a brochure that outlines all this information including contact information for the appropriate environmental personnel.

- **APM BIO-15: Protection of Drainage Features.** A buffer of 50 feet will be established around any drainage features, including ditches. If maintaining the buffer is not practicable because the work sites are within any part of the buffered area, the field crew will implement other measures as prescribed by the biologist to minimize impacts to potential habitat. These measures may include flagging

access, requiring foot access, restricting work until the dry season, or requiring a biological monitor during the activity. Activities must maintain the hydrology necessary to support the drainage features (inclusive of downstream).

3.4.4.2 Multiple Region Operations and Maintenance Habitat Conservation Plan

The MRHCP was prepared for PG&E to provide an efficient and consistent approach to Endangered Species Act compliance and to species conservation (PG&E 2020). The MRHCP includes 24 wildlife and 12 plant species that are listed as threatened or endangered under FESA, which can be affected by operation and maintenance activities performed at PG&E's facilities and infrastructure. The field protocols identified in the MRHCP that are designed to avoid or minimize impacts on biological resources during performance of MRHCP-covered activities in field conditions include the following:

FP-01 Conduct annual training on habitat conservation plan requirements for employees and contractors performing covered activities in the Plan Area that are applicable to their job duties and work. Tailboard and site-specific training will also be conducted prior to commencing work.

FP-02 Park vehicles and equipment on pavement, existing roads, or other disturbed or designated areas (barren, gravel, compacted dirt).

FP-03 Use existing access and ROW [right-of-way] roads. Minimize the development of new access and ROW roads, including clearing and blading for temporary vehicle access in areas of natural vegetation.

FP-04 Route off-road access paths and work sites to minimize impacts on plants, shrubs, and trees, small mammal burrows, and unique natural features (e.g., rock outcrops).

FP-05 Notify conservation landowners at least 2 business days prior to conducting covered activities on protected lands (state- or federally owned wildlife areas, ecological reserves, or conservation areas); more notice will be provided if practicable or if required by other permits. If the work is an emergency, as defined in PG&E's Utility Procedure ENV-8003P-01, PG&E will notify the conservation landowner within 48 hours after initiating emergency work. Although this notification is intended only to inform conservation landowner, PG&E will attempt to work with the conservation land owner to address landowner concerns.

FP-06 Minimize potential for covered species to become trapped, injured, or killed in pipes, culverts, or under materials or equipment. Inspect pipes and culverts wide enough to be entered by a covered species that could inhabit the area where pipes are stored for wildlife species prior to moving pipes and culverts. Contact a biologist if a covered species or other federally listed species is suspected or discovered.

FP-07 Vehicle speeds on unpaved roads will not exceed 15 miles per hour.

FP-08 Prohibit trash dumping, firearms, open fires (such as barbecues), hunting, and pets (except for safety in remote locations) at work sites.

FP-09 In designated State Responsibility Areas, equip all motorized equipment with federally or state-approved spark arrestors. Ensure a backpack pump filled with water and a shovel and fire-resistant mats and/or windscreens is on-site during welding. During fire "red flag" conditions as determined by the California Department of Forestry and Fire Protection, prohibit welding. Each fuel truck will carry a large fire extinguisher with a minimum rating of 40 B:C. Clear parking and storage areas of all flammable materials.

FP-10 Minimize the covered activity footprint and minimize the amount of time spent at a work site to reduce the potential for take of species.

FP-11 Utilize standard erosion and sediment control BMPs [best management practices] (pursuant to the most current version of PG&E's *Stormwater Field Manual for Construction Best Management Practices*) to prevent construction site runoff into waterways.

FP-12 Stockpile soil within established work site boundaries and locate stockpiles so as not to enter water bodies, stormwater inlets, other standing bodies of water. Cover stockpiled soil prior to precipitation events.

FP-13 Fit open trenches or steep-walled holes with escape ramps of plywood boards or sloped earthen ramps at each end if left open overnight. Field crews will search open trenches or steep-walled holes every morning prior to initiating daily activities to ensure wildlife is not trapped. Field crews will not handle covered species. If any covered wildlife species is found, work will stop and a biologist will be notified. A biologist with appropriate take permits will relocate the species to adjacent habitat or the species will be allowed to naturally disperse, as determined by a biologist.

FP-14 If the covered activity disturbs 0.1 acre or more of habitat for a covered species in grasslands, the field crew will revegetate the area with a commercial "weed free" seed mix.

FP-15 Prohibit vehicular and equipment refueling within 250 feet of the edge of wetlands, streams, or waterways. If refueling must be conducted closer to wetlands, construct a secondary containment area subject to review by an environmental field specialist and/or biologist. Maintain spill prevention and cleanup equipment in refueling areas.

FP-16 Maintain a buffer of 250 feet from the edge of wetlands, ponds, or riparian areas. If maintaining the buffer is not practicable because the covered activity footprint is within the buffered area, other measures as prescribed by the biologist or the HCP administrator to minimize impacts such as flagging access routes or paths, requiring foot access, restricting work until the dry season, or requiring a biological monitor during the activity.

FP-17 Directionally fall trees away from an exclusion zone, if an exclusion zone has been defined. If this is not practicable, remove the tree in sections. Avoid damage to adjacent trees to the extent practicable. Avoid removal of snags and conifers with basal hollows, crown deformities, and/or limbs more than 6 inches in diameter.

FP-18 Nests with eggs and/or chicks will be avoided; contact a biologist or the Avian Protection Program Manager for further guidance. Work will be stopped until the crew can obtain clarification from a biologist or the Avian Protection Program Manager on how to proceed.

FP-19 Inspect and maintain exclusion fencing installed to exclude species from work areas.

3.4.5 Environmental Impacts

3.4.5.1 Methodology and Assumptions

Information used for the analysis of the Project's effects on biological resources was derived from the Proponent's Environmental Assessment described in Section 3.4.1, *Data Sources/Methodology* (PG&E 2024); from readily available databases characterizing the occurrence and distribution of biological resources in the Project vicinity; and from the professional judgment of ESA biologists. The biological

resources study area includes the entire Project site and considers the nesting raptors that could be present within 0.5 mile of the site and affected by construction activities.

As analyzed below, the Project would result in a less-than-significant impact relative to Criteria a), d), e), and f) a less-than-significant impact with mitigation incorporated relative to Criterion g), and no impact relative to Criteria b)and c).

3.4.5.2 Discussion

Criterion a) Whether the project would 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: *Less-than-Significant Impact.*

Giant Garter Snake and Western Pond Turtle

As discussed above, the likelihood of encountering giant garter snake and western pond turtle during Project implementation is considered low. Ditches that border the north and west sides of the Project site are seasonally wet, but these actively managed habitats are unlikely to support these species. Note that APM BIO-2 and APM BIO-15 would provide erosion control during construction, which would protect the ditches from sedimentation. With implementation of APM BIO-15, ground-disturbing activities would occur only in the dry season to avoid seasonal rainfall. Given the poor-quality habitat for giant garter snake and western pond turtle in the two ditches, and the additional measures that would be implemented by the Applicant, no impact on either species would occur.

Burrowing Owl and Tricolored Blackbird

As discussed above, neither burrowing owls nor tricolored blackbirds are expected to nest on or near the Project site. The site lacks appropriate burrows or structural cover for burrowing owl refugia and lacks aquatic vegetation that would support tricolored blackbird nesting. These species may generally occur on the Project site in a foraging, non-nesting capacity, and would not be subject to impacts during Project construction. No impact on burrowing owl or tricolored blackbird breeding habitat would occur.

Other Nesting Birds

With implementation of the APMs, due diligence would be performed to confirm the absence of protected nesting birds during construction. The APMs include preconstruction surveys (APM BIO-12) for nesting birds, with avoidance measures to be implemented in coordination with CDFW if any are found. Nesting bird surveys would be conducted within 15 days before any construction work scheduled during the nesting season (February 1–August 31). Additionally, APM BIO-14 provides for environmental awareness training to workers, who would be informed about the potential presence of sensitive species and actions to take if any are encountered. Given the avoidance measures to be implemented by the Applicant, the impact on nesting birds would be less than significant.

Swainson's Hawk

Although no Swainson's hawks were observed during site surveys, this species is known to nest in the Project area. Eight Swainson's hawk nests are reported within 1 mile of the site; the nearest, a 2004 occurrence, is 0.3 mile east of the Project site (CDFW 2024a). No trees are present on the Project site, but nearby lines of trees surround farmyards and are along Willow ~~Creek~~ Slough near the Project site.

Depending on their timing, construction activities initiated near an active Swainson's hawk nest could disturb birds that are nesting in the Project vicinity. Although no tree removal is likely for the Project, smaller vegetation may be removed, and noise and disruption may occur near active nests. The abandonment of a nest by adult birds or the direct loss of individual nests would have a significant impact. Implementation of the WEAP (APM BIO-14), avoidance and minimization of potential impacts on Swainson's hawk (APM BIO-13), and preconstruction nesting bird surveys and avoidance (APM BIO-12) would minimize disturbance impacts on Swainson's hawks and reduce potential direct and indirect impacts on Swainson's hawk and other birds during construction to a less-than-significant level, with no mitigation required.

Swainson's hawk may forage on the Project site. Despite the active agricultural operations, portions of the site provide habitat for prey, including gophers and other rodents. Conversion of these lands would reduce the amount of available foraging habitat and could cause hawks to range farther from their nests for prey. However, because of the large amount of suitable foraging habitat in the Project vicinity, the impact of the loss of approximately 5.2 acres of Swainson's hawk foraging habitat would be **less than significant**.

Mitigation: None required.

Criterion b) Whether the project would 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: *No Impact.*

The Project site consists of agricultural fields, ruderal grassland, agricultural and roadside ditches and culverts, and disturbed land (see Figure 3.4-1), none of which include sensitive vegetation communities. The nearest stream is Willow Creek, approximately 0.5 mile south of the Project site, and is vegetated with trees along its length. The creek is not within the active Project footprint, nor is it in the 1,000-foot Project buffer. The creek would not be subject to impacts from the Project. Thus, **no impact** would occur.

Criterion c) Whether the project would 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: *No Impact.*

A wetland delineation was not conducted at the Project site, but field investigations determined that there were no on-site wetland features as defined by CWA Section 404. As stated above, Willow Creek is approximately 0.5 mile south of the Project site, is not within the Project buffer, and would not be affected by Project activities. Additionally, the ditches and culverts to the north and west of the Project site are neither federally nor state protected wetlands. Because the creek would be completely avoided during construction and operation of the substation, **no impact** would occur.

Criterion d) Whether the project would 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.*

Although no wildlife connectivity areas or linkage corridors are within 5 miles of the Project site, the site is located within the Pacific Flyway. More than 1.5 million ducks and 750,00 geese migrate to seasonal marshes along the Pacific Flyway (Northern California Water Association 2024). The Project would not

interfere with the marshes necessary for their migration. Although the expansion of the substation would occur within this migratory corridor, the scope of the Project would be relatively small and would not affect the movement of the birds as they seasonally migrate through the Central and Sacramento valleys. Thus, the impact would be **less than significant**.

Mitigation: None required.

Criterion e) Whether the project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance: *Less-than-Significant Impact.*

The County has policies protecting wildlife habitat (supporting General Plan Goal CO-2) that require the protection and enhancement of biological resources through the conservation, maintenance, and restoration of key habitat areas. Additionally, when Swainson's hawk foraging habitat would be affected, under General Plan Policy CO-2.42 the County requires participation in the Agreement Regarding Mitigation for Impacts on Swainson's Hawk Foraging Habitat in Yolo County or satisfaction of other subsequent adopted requirements for the protection of the species (Yolo County 2009). Construction of the Project would convert 5.2 acres of Swainson's hawk foraging habitat, requiring compliance with this measure. Implementing the preconstruction wildlife surveys, WEAP, and wildlife avoidance included in APMs 4, 12, 13, and 14 would avoid or minimize potential impacts on these species and ensure compliance with General Plan Goal CO-2. Therefore, the Project would not conflict with local policies and ordinances protecting biological resources, and the impact would be **less than significant**.

Mitigation: None required.

Criterion f) Whether the project would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan: *Less-than-Significant Impact.*

The Project is within the MRHCP and would fall under E14 *Minor Substation Expansion,* covered activity type. The Project would not be in conflict with the MRHCP because it would follow the APMs and field protocols listed in Section 3.4.4, *Applicant-Proposed Measures*.

The Project site is also located within the area covered by the Yolo HCP/NCCP, which provides conservation for 12 species. This plan strikes a balance between natural resources conservation and economic development in the county. Project construction would not interfere with any existing permanent conservation easement that is part of the reserve system land holdings for the Yolo HCP/NCCP. Additionally, given the relatively small size of the Project site, its implementation is unlikely to interfere with the ability of the Yolo HCP/NCCP implementing entities to achieve their land conservation commitments. By following the APMs and field protocols, the Project would not conflict with the MRHCP or the Yolo HCP/NCCP, and the impact would be **less than significant**.

Mitigation: None required.

Criterion g) Whether the project would create a substantial collision or electrocution risk for birds or bats: *Less than Significant with Mitigation.*

Collisions with Project facilities or equipment could also cause injury or mortality to birds, especially raptors present on or near the site during construction or operation activities. Birds may collide with transmission poles or wires, fencing, or heavy equipment, and power lines may cause electrocution. Raptors generally have the ability to avoid obstacles, but their collision or electrocution risk increases when they are engaged in activities such as territorial defense and foraging for prey (APLIC 2012). Yolo County contains many high-voltage transmission lines; the Project would introduce additional collision hazards to the site. However, the Project proposes to implement Mitigation Measure BIO-1, Wildlife-Friendly Design Features. This measure includes adherence to current Avian Power Line Interaction Committee (APLIC) design standards, which include using avian-safe line designs and installing devices to make power lines visible to birds (APLIC 2006, 2012). These standards apply to overhead power lines and associated structures to minimize the potential for avian injury and mortality during construction, operation, or decommissioning. Adherence to APLIC design standards for new power lines is considered the industry standard to minimize potential impacts on raptors from collisions or electrocution. If the Project would not adhere to APLIC design standards for power poles, a significant impact could result from the inadvertent electrocution of raptors or other large birds that choose to perch on power poles. By implementing Mitigation Measure BIO-1, the Project would comply with APLIC design standards for power poles.

The Project has the potential to create a collision hazard to birds and bats. The additional transmission lines, poles, and infrastructure create additional risk from the existing substation for bird and bat collision and electrocution. However, implementing Mitigation Measure BIO-1 would lower the risk to birds and bats. Following the recommended building practices in Mitigation Measure BIO-1, as outlined in "Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006," would reduce the risk of collision and electrocution to birds and bats (APLIC 2006). Therefore, the impact would be **less than significant** after mitigation.

> **Mitigation Measure BIO-1: Wildlife-Friendly Design Features**
>
> The design of new overhead transmission and communications lines and structures will follow the most recent Avian Power Line Interaction Committee guidance (currently APLIC 2006) at the time of Project approval to reduce the potential for avian injury and mortality from collisions and electrocution.
>
> **Significance after Mitigation:** Less than Significant.

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3.5 Cultural Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
V. CULTURAL RESOURCES — Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

3.5.1 Environmental Setting

This section examines the potential impacts of the Project related to cultural resources, which include historical resources, archaeological resources, and human remains. Tribal cultural resources are discussed separately in Section 3.18, *Tribal Cultural Resources*. For the 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 reasons.*

This analysis is supported in part by the *Plainfield Substation Upgrade (74001791) Project Cultural Resources Inventory* (Stantec 2024) and *CEQA Historical Resource Analysis Report, Pacific Gas and Electric Company Plainfield Substation Expansion Project* (Allen and Stepper 2021). The preparers of this draft IS/MND independently reviewed these technical studies (and other materials prepared by or on behalf of the Applicant) and determined them suitable for reliance, in combination with other materials included in the formal record, in preparing this draft IS/MND.

3.5.1.1 Natural Environment

The Sacramento Valley, which is the northern extent of the greater Central Valley, is bordered by the Sierra Nevada to the east, the Coast Ranges to the west and north, and the Sacramento–San Joaquin Delta to the south. The Sacramento Valley contains thousands of feet of accumulated fluvial, overbank, and fan deposits resulting from erosion of the surrounding mountain ranges, with sediments varying from a thin veneer at the edges of the valley to 50,000 feet in the west-central portion. The Sacramento River is the main drainage of the northern Sacramento Valley, flowing generally south from the Klamath Mountains to its discharge point into Suisun Bay in the San Francisco Bay area. Human-made levees have confined the Sacramento and American rivers since the mid-nineteenth century.

Historically, this diverse landscape contained abundant resources and hosted various natural communities: dense riparian forests, tule marshlands, open grasslands with sparse oak groves, and forested foothills. The hill and mountain oak, and to a lesser degree live oak, were important to the indigenous people of the valley. Deer, tule elk, antelope, bear, smaller mammals, waterfowl, reptiles, amphibians, shellfish, and numerous fish species were plentiful in prehistory and the early historic era. The Sacramento Valley has

exhibited a Mediterranean semi-arid climate, with mild and wet winters, very hot and dry summers, and an average of 20 inches of yearly rainfall.

A network of sloughs and creeks encircles the Project site, the nearest being Willow Slough approximately 2,000 feet to the south (Stantec 2024). The underlying geology of the Project site consists of Quaternary Great Valley basin deposits dominated by Capay silty clay (Wagner et al. 1981; NRCS 2024). This alluvial basin deposit dates from the Pleistocene to the Holocene epoch. Landforms that predate the earliest estimated periods for human occupation in the region are considered to have a very low potential for buried archaeological resources. In contrast, those that postdate human occupation are considered to have a higher potential for buried archaeological resources. The degree of buried site potential is inversely related to the estimated date range of a landform. Currently, archaeological research indicates that the earliest evidence for human occupation of California dates to the Late Pleistocene. Therefore, the potential for buried archaeological deposits in landforms from or predating the Late Pleistocene is very low, while the potential for buried archaeological deposits in landforms from the Latest Holocene is high (Meyer and Rosenthal 2008).

3.5.1.2 Pre-contact Period

Most Late Pleistocene landscapes in the valley have been destroyed or buried by Holocene-epoch erosion and deposition, and most surface sites, including village mounds, have been obliterated by erosion and agricultural development. Thus, very few recorded archaeological sites dating to before 2,500 years Before the Common Era exist in the region, and the cultural-historical framework is poorly defined (Meyer et al. 2010). The chronology of the Sacramento Valley is commonly divided into the following pre-contact periods: Paleo-Indian Period (13,500–11,500 years Before Present [BP]), Paleo-Lower Archaic Period (11,500–7,000 BP), Lower Archaic Period (7,500–5,00 BP), Middle Archaic Period (4,000–2,550 BP), Upper Archaic Period (2,550–900 BP), and Emergent Period (900–150 BP) (150–50 BP) (Meyer and Rosenthal 2008).

Ethnographic Period

The Patwin inhabited the northwestern Sacramento Valley. The Patwin territory was an extensive region within north-central California that included the southern portion of the Sacramento Valley west of the Sacramento River, from the town of Princeton in the north to San Pablo and Suisun bays in the south (Johnson 1978). The Patwin have traditionally been divided into River, Hill, and Southern Patwin groups. They were linguistically related to the Penutian language family of central and coastal California. However, a more complex set of dialects and cultural differences existed than is indicated by these three geographic divisions (Johnson 1978). The Patwin territory was bounded on the north, northeast, and east by other Penutian-speaking peoples (the Nomlaki, Wintu, and Maidu, respectively) and on the west by the Pomo and other coastal groups. The nearest recorded ethnographic village site, *KatcituliLabe*, is approximately 6miles northeast of the Project site (Barrett 1908).

As with most of the hunting-gathering groups of California, a chief would reside in a major village where ceremonial events were also typically held. The status of such individuals was patrilineally inherited among the Patwin, although village elders had considerable power in determining who succeeded to particular positions. The chief's main responsibilities involved the administration of ceremonial and economic activities. Such individuals decided when and where various fishing, hunting, or gathering

expeditions would occur and similarly made critical decisions regarding the more elaborate ceremonial activities. The chief also played a central role in resolving conflicts within the community or during wars that occasionally broke out with neighboring groups. Apparently, a Patwin chief had more authority than his counterparts among many of the other central California groups (McKern 1922; Kroeber 1925).

The onslaught of Euro-American culture negatively affected Patwin culture and people. With the establishment of Missions Dolores, San Jose, and Sonoma, the Southern Patwin were exposed to disease and violence and, in many cases, were forced into the mission system. Euro-American influences within Patwin territory increased dramatically as ranching and farming became popular in the area. Euro-American settlers, especially within the Sacramento Valley, quickly made inroads into lands occupied by Native Americans. Conflicts grew in number, and Patwin populations continued to decline from military skirmishes, vigilante raids, and other causes. In 1972, the U.S. Bureau of Indian Affairs listed only 11 remaining Patwin descendants (Johnson 1978). Despite the massive decline in population, the descendants of traditional Patwin speakers persist, many having intermarried with the Wintu (Johnson 1978). Today, the Patwin are represented by the Cachil Dehe Band of Wintun Indians of the Colusa Indian Community, the Cortina Rancheria–Kletsel Dehe Band of Wintun Indians, the Ohlone Indian Tribe, and the Yocha Dehe Wintun Nation (NAHC 2025).

Historic Period

Sacramento Valley

Although the Spanish had made forays into the Central Valley since the mid-18th century, the earliest non-indigenous presence in the region occurred in 1808 when Capitan Gabriel Moraga led an expedition from Mission San Jose to the northern Sacramento Valley. By the late 1820s, English, American, and French fur trappers, attracted by the valley's abundant animal life, had established operations throughout the region. The Sacramento Valley was still predominantly occupied by Native Americans, with the occasional Spanish expedition into the interior. Priests and their representatives made forays into the valley to identify potential locations, attract additional neophytes, and capture those who had fled. The earliest Euro-American settlement of the area occurred in the 1830s and 1840s with the establishment of land grants by the Mexican government. The region's early pioneers, attracted by the fertile soils and expansive landscapes, established vast farms and ranches while others capitalized on the abundant natural resources.

The discovery of gold in the Sierra Nevada accelerated the region's population. Given the Sacramento Valley's proximity to mining areas and its accessibility to maritime traffic, the region quickly became a trading and economic center. Commerce along the Sacramento River encouraged continued population growth, with many miners and farmers settling along the natural levees of the Sacramento River. Settlers recognized that the active floodplain deposited fertile soils on the lands nearest to the river, supporting bountiful crops and providing easy access to transportation corridors along the river. Ranchers and farmers found economic success in providing food and supplies for the miners, although frequent flooding troubled settlers' agricultural efforts and additional settlement (Hoover et al. 2002).

Early attempts by individual landholders to build levees and reclaim swamp and overflow land in the 1850s proved ineffective in most cases. Legislators began to recognize that a system or network of levees and drainages was required. They also realized that a large amount of capital and labor was necessary to build strong levees, drain large plots of land, and maintain the system. In 1861, the California Legislature

created the State Board of Swamp Land Commissioners. For the next two years, the board formed a system of reclamation and levees and laid out 30 districts. Reclamation districts were organized to protect lands from flooding and allow for the reclamation of agricultural land. In 1866, the state abolished the board, and control of swamp and overflow land fell to the counties (Bouey and Herbert 1990). During the first half of the 20th century, Congress enacted several flood control acts, including the Flood Control Acts of 1917, 1928, 1936, and 1941. The Sacramento River Flood Control Project began in 1918 and marked the first expansive flood control efforts on the Sacramento River.

Yolo County

Yolo County, originally named "Yola," derived its name from the Patwin word of *yo-loy,* which described the region's vast wetlands and dense vegetation (Gregory 1913). Following the secularization of the missions, the region was controlled by the Mexican government and under the authority of Mariano G. Vallejo. Vallejo formed relationships with the Patwin villages that remained. Of importance was Patwin Chief Solano, who became Vallejo's friend and lieutenant (Johnson 1978). Vallejo provided defensive resources through troops, while the Patwin people were the region's labor force. In time, the Mexican land grant system enabled newcomers to settle in the county.

In 1842, U.S. citizen William Wolfskill was granted the Mexican land grant Rancho Rio de los Putos by Governor Juan B. Alvarado. This land grant encompassed Solano and Yolo counties. Wolfskill, and later his brother John Reid, used Putah Creek for agricultural and livestock raising. Wolfskill is considered to have been instrumental in the shaping of California's agricultural and winery practices because of his cultivation of citrus fruits, grapes, and other crops (Yolo Arts n.d.; Lee n.d.). Other early Mexican land grant owners in the county included Thomas M. Hardy, William Gordon, John S. Williams, Juan Manuel Vaca, and Juan Felipe Armijo Peña (Johnson 1978; Gregory 1913). Similarly to Wolfskill, animal husbandry, diverse crops, and orchard cultivation enabled these early pioneers to thrive (Johnson 1978).

After California gained statehood in 1850, Yolo County was incorporated as one of California's original 27 counties. The county seat, which changed locations because of flooding and shifts in population, was permanently established in Woodland in 1862. As stated previously, the entire valley became an agricultural hub, which was sustained by the development of irrigation systems in the 1860s and 1870s. Crops included a variety of grains, fruits, vegetables, and grasses. Livestock raising remained an important revenue source after the rancho period. In 1863, the Bullard-Beeman property was established. Francis Bullard, who had steadily acquired vast landholdings in the county starting in the 1850s, specialized in raising Rambouillet sheep and cultivating grapes, alfalfa, hay, and grains (Allen and Stepper 2021). As new settlers flooded the county, Bullard and other large landholders subdivided and sold off parcels of their lands.

Because of Yolo County's substantial population increase, especially in the towns of Davis, Madison, Woodland, and Winters, during the first half of the 20th century the region's electric power infrastructure became insufficient. In October 1959, PG&E authorized development of the Plainfield Substation and purchased the land. Construction of the substation was completed in December 1960 (Allen and Stepper 2021). Over the decades, the substation has been modified and expanded to support increasing energy demands.

3.5.1.3 Method and Known Resources

The following discussion regarding the identification of known cultural resources within the Project site is based on the following documents: *Plainfield Substation Upgrade (74001791) Project Cultural Resources Inventory,* prepared by Stantec Consulting Services, Inc., and *CEQA Historical Resource Analysis Report, Pacific Gas and Electric Company Plainfield Substation Expansion Project,* prepared by Cardno.

Records Search and Historical Research

On July 7, 2021, a records search of the California Historical Resources Information System was conducted at the Northwest Information Center (File No. 20-2594). The records search included a review of all recorded cultural resources, previous studies, and additional information pertaining to properties located within a 0.25-mile radius of the Project site. The National Register of Historic Places (National Register), California Register of Historical Resources (California Register), California Historical Landmarks, California Inventory of Historic Resources, California Points of Historical Interest, and historic maps and aerials of the Project site were also reviewed.

The records search results indicated no previously recorded cultural resources within the Project site or within a 0.25-mile search radius. The results also indicated that no cultural resource studies had been conducted within the Project site, but that five had been conducted within the 0.25-mile search radius (Stantec 2024).

Archaeological Survey

On July 20, 2022, Stantec conducted an intensive pedestrian survey of 4.23 acres of the Project site. The survey involved walking in parallel transects 10–15 meters apart. Areas that would incur ground disturbance were examined closely. The survey aimed to inspect the ground surface for pre-contact and historic-era archaeological and architectural resources or evidence thereof. The area was noted as being used for the cultivation of crops; therefore, ground visibility ranged from fair to excellent. During the pedestrian survey, no archaeological resources were identified (Stantec 2024). On March 7, 2024, an additional pedestrian survey of 10.4 acres was conducted because of a redesign and expansion of the design. As before, no pre-contact cultural resources or evidence thereof were observed. One previously unrecorded historic-era water conveyance ditch (P-57-001575) was observed and recorded west of the Project site. Stantec did not evaluate the resource's eligibility, given its location outside of the Project site and the lack of potential impacts (Stantec 2024).

Architectural Survey

Stantec completed an architectural survey and evaluations of the Plainfield Substation and two historic-age resources located outside of the Project site. Stantec recommended that the Plainfield Substation was ineligible for listing because of "a lack of significance under California Register Criteria 1 through 4 or National Register Criteria A through D" (Stantec 2024). Environmental Science Associates agrees with this recommendation.

Stantec determined the residential property at 38660 County Road 27 to be ineligible for listing, while the Bullard-Beeman farmhouse was determined eligible for listing under Criteria 1/A and 3/C for its historical importance to the region's agriculture and 19th century architecture. The resource is not within

the Project site; therefore, no impacts on the Bullard-Beeman farmhouse or the property's character-defining features would occur.

Native American Correspondence

On July 17, 2024, the Native American Heritage Commission (NAHC) provided a list of eight Native American representatives from four Tribes that may have knowledge of tribal cultural resources on the Project site or be interested in the Project: Cachil Dehe Band of Wintun Indians of the Colusa Indian Community; Cortina Rancheria—Kletsel Dehe Band of Wintun Indians; Grindstone Rancheria of Wintun-Wailaki; and Yocha Dehe Wintun Nation. The accompanying Sacred Lands File search was negative for sacred sites (NAHC 2024).

On August 13, 2024, the California Public Utilities Commission (CPUC) sent certified letters to the Native American representatives whose contact information was provided by the NAHC. These letters provided information on the Project and solicited input from the recipients.

The United Auburn Indian Community had previously notified the CPUC that they would like to be consulted on projects within 13 counties, including Yolo County, as per Assembly Bill 52.

On August 12, 2024, the CPUC notified the United Auburn Indian Community by certified mail. The letter provided information on the Project and solicited comments and related concerns (as defined in Public Resources Code [PRC] Section 21074).

No Tribes responded to the tribal consultation efforts within 30 days, and no responses have been received to date.

Archaeological Sensitivity Assessment

This analysis uses the term *potential* to assess the possibility for cultural resources to be present and *sensitivity* to assess the likelihood that any possible cultural resources are significant under the California Register and would qualify as a historical resource. Site records, historical maps, aerial photography, soil maps, and survey results were reviewed as part of an archaeological sensitivity analysis. The historical maps show that no historic-era buildings and features that could represent buried historic-era archaeological resources, such as artifact-filled wells or privies, were present within the Project site (USGS 1907, 1915, 1941, 1952). Therefore, the potential for historic-era archaeological resources to be present within the Project site is low.

Based on the Pleistocene to Holocene age of the soils and the Project's location north of Willow Slough, the potential exists for buried pre-contact archaeological deposits to be present within undisturbed portions of the Project site. However, the site has incurred decades of extensive soil disturbance caused by agricultural practices and the construction, maintenance, and expansion of the Plainfield Substation. Additionally, no pre-contact or indigenous resources have been previously identified within 0.25 mile of the Project site, and the Sacred Lands File search results from the NAHC were negative (NAHC 2024; Stantec 2024). Therefore, the potential for intact pre-contact archaeological resources to be present within the Project site is low.

In summary, because of the extensive disturbance and the lack of known pre-contact and historic-era archaeological resources, the Project's sensitivity for pre-contact and historic-era archaeological resources is low.

3.5.2 Regulatory Framework

3.5.2.1 Federal

Although no federal statutes, regulations, plans, or policies related to cultural resources are associated with the Project, the following information regarding federal laws addressing cultural resources is presented to provide context and continuity with state laws.

National Historic Preservation Act

The principal federal law addressing historic properties is the National Historic Preservation Act (NHPA), as amended (U.S. Code Title 54, Section 300101 et seq.), and its implementing regulations (Code of Federal Regulations Title 36, Part 800 [36 CFR 800]). Section 106 of the NHPA requires a federal agency with jurisdiction over a proposed federal action (referred to as an *undertaking*) to consider the effects of the undertaking on historic properties and to provide the Advisory Council on Historic Preservation and other interested parties an opportunity to comment on the undertaking.

The term *historic properties* refers to "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register" (36 CFR 800.16[l][1]). The implementing regulations (36 CFR 800) describe the process for identifying and evaluating historic properties and for assessing the potential adverse effects of federal undertakings on historic properties. The regulations seek to develop measures to avoid, minimize, or mitigate adverse effects. The Section 106 process does not require the preservation of historic properties; instead, it is a procedural requirement mandating that federal agencies consider the effects of an undertaking on historic properties before approval.

The steps of the Section 106 process are accomplished through consultation with the State Historic Preservation Officer, federally recognized Native American Tribes, local governments, and other interested parties. The goal of consultation is to identify potentially affected historic properties, assess effects on such properties, and seek ways to avoid, minimize, or mitigate any adverse effects on such properties. The agency must also provide an opportunity for public involvement (36 CFR 800.1[a]). Consultation with Native American Tribes regarding issues related to Section 106 and other authorities (such as NEPA and Executive Order 13007) must recognize the government-to-government relationship between the federal government and Native American Tribes, as set forth in Executive Order 13175 (*Federal Register* Title 65, Page 87249, November 9, 2000) and the Presidential Memorandum of November 5, 2009.

National Register of Historic Places

The National Register was established by the NHPA of 1966 as "an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation's historic resources and to indicate what properties should be considered for protection from destruction or impairment" (36 CFR 60.2). The National Register recognizes a broad range of cultural resources that are significant at the national, state, and local levels and can include districts, buildings, structures, objects, prehistoric archaeological sites, historic-period archaeological sites, traditional cultural properties, and

cultural landscapes. As noted above, a resource that is listed in or eligible for listing in the National Register is considered historic property under Section 106 of the NHPA.

To be eligible for listing in the National Register, a property must be significant in American history, architecture, archaeology, engineering, or culture. Properties of potential significance must meet one or more of the following four established criteria:

1. Are associated with events that have made a significant contribution to the broad patterns of our history.
2. Are associated with the lives of persons significant in our past.
3. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
4. Have yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the criteria of significance, a property must have integrity. *Integrity* is defined as "the ability of a property to convey its significance" (U.S. Department of the Interior 2002). The National Register recognizes seven qualities that, in various combinations, define integrity: location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity, a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.

Religious properties, moved properties, birthplaces or graves, cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years are not considered eligible for listing in the National Register unless they meet one of the "Criteria Considerations" (A–G), in addition to meeting at least one of the four significance criteria and possessing integrity (U.S. Department of the Interior 2002).

3.5.2.2 State

California Register of Historical Resources

The State of California implements the NHPA through its statewide comprehensive cultural resources surveys and preservation programs. The Office of Historic Preservation, an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The Office of Historic Preservation also maintains the Historic Resources Inventory. The State Historic Preservation Officer is an appointed official who implements historic preservation programs within the state's jurisdictions.

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" (PRC Section 5024.1[a]). The criteria for eligibility for the California Register are based upon National Register criteria (PRC Section 5024.1[b]). Certain resources are determined by statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.

To be eligible for listing in the California Register, a prehistoric or historic-period property must be significant at the federal, state, and/or local level under one or more of the following four criteria:

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.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for listing in the California Register must meet one of the criteria of significance described above and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historical resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

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.[5]
- Those California Points of Historical Interest that have been evaluated by the Office of Historic Preservation 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 the following:

- Historical resources with a National Register Status Code 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 historical resources.
- Historical resources contributing to historic districts.
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

California Environmental Quality Act

CEQA (PRC Section 21000 et seq.) is the principal statute governing environmental review of projects occurring in the state. CEQA requires lead agencies to determine whether a project would have a significant effect on the environment, including significant effects on historical or unique archaeological resources.

[5] The current standards for designating a California Historic Landmarks are applied to landmarks No. 770 and onward. Landmarks designated before No. 770 do not meet the current designation criteria and, therefore, do not qualify as historical resources.

Under CEQA (Section 21084.1), a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. An archaeological resource may qualify as a "historical resource" under CEQA. The CEQA Guidelines (California Code of Regulations Title 14, Section 15064.5) recognize that historical resources include the following:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register.
2. A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g).
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, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

The fact that a resource does not meet the three criteria outlined above does not preclude the lead agency from determining that the resource may be a historical resource as defined in PRC Section 5020.1(j) or 5024.1.

Should a lead agency determine that an archaeological site is a historical resource, the provisions of Section 21084.1 of CEQA and Section 15064.5 of the CEQA Guidelines would apply. Should a project cause a substantial adverse change (defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired) in the significance of a historical resource, the lead agency must identify potentially feasible measures to mitigate these effects (CEQA Guidelines Sections 15064.5[b][1] and 15064.5[b][4]).

If an archaeological site does not meet the criteria for a historical resource presented in the CEQA Guidelines, the site may be treated in accordance with the provisions of PRC Section 21083, which establishes requirements for unique archaeological resources. As defined in PRC 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:

1. Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Should an archaeological site meet the criteria for a unique archaeological resource as defined in Section 21083.2, and should the lead agency determine that a project would have a significant effect on unique archaeological resources, the lead agency may require that reasonable efforts be made to permit any or all of these resources to be preserved in place (Section 21083.1[a]). If preservation in place is not feasible, mitigation measures are required.

The CEQA Guidelines note that if an archaeological resource is neither a unique archaeological resource nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (CEQA Guidelines Section 15064.5[c][4]).

Assembly Bill 52

A summary of the Assembly Bill 52 statute is provided in Section 3.18, *Tribal Cultural Resources*.

California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 states that if any human remains are discovered or recognized in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlie adjacent remains, until the county coroner has examined the remains. If the coroner determines, or has reason to believe, that the remains are those of a Native American, the coroner shall contact the NAHC by telephone within 24 hours.

California Public Resources Code Section 5097.98

PRC Section 5097.98 provides procedures to be followed in the event that human remains of Native American origin are discovered during Project implementation. It requires that no further disturbances occur in the immediate vicinity of the discovery; that the discovery be adequately protected according to generally accepted cultural and archaeological standards; and that further activities consider the possibility of multiple burials. It further requires that the NAHC, upon notification by the county coroner, designate and notify a Most Likely Descendant regarding the discovery of Native American human remains. Once the Most Likely Descendant has been granted access to the site by the landowner and inspected the discovery, the Most Likely Descendant has 48 hours to provide recommendations to the landowner for the treatment of the human remains and any associated grave goods.

If no descendant is identified, if the descendant fails to make a recommendation for disposition, or if the landowner rejects the descendant's recommendation, the landowner may reinter the remains and burial items on the property with appropriate dignity, in a location that will not be subject to further disturbance.

3.5.2.3 Local

Yolo County

Yolo County's 2030 General Plan outlines its mission to preserve the region's heritage, its archaeological, architectural, and paleontological resources, and its cemeteries and burials outside of cemeteries, through the Conservation and Open Space Element's policy framework and implementation programs (Yolo County 2009). Applicable implementation program protocols and mitigation measures are listed below.

> ***Action CO-A63*:** Require cultural resource inventories of all new development projects in areas where a preliminary site survey indicates a medium or high potential for archaeological, historical, or paleontological resources. In addition, a mitigation plan is required to protect the resource before the issuance of permits. Mitigation may include:
>
> - Having a qualified archaeologist or paleontologist present during initial grading or trenching;
> - Redesign of the project to avoid historic or paleontological resources;
> - Capping the site with a layer of fill and/or

- Excavation and removal of historical or paleontological resources and curation in an appropriate facility under the direction of a qualified professional. (Policy CO-4.1, Policy CO-4.13)

Action CO-A64: Require that discretionary projects that involve earth-disturbing activities on previously undisturbed soils in an area determined to be archaeologically sensitive perform the following:

- Enter into a cultural resources treatment agreement with the culturally affiliated tribe.
- Retain a qualified archaeologist to evaluate the site if cultural resources are discovered during construction. The archaeologist will have the authority to stop and redirect grading activities, in consultation with the culturally affiliated tribe and their designated monitors, to evaluate the significance of any archaeological resources discovered on the property.
- Consult with the culturally affiliated tribe to determine the extent of impacts to archaeological resources and to create appropriate mitigation to address any impacts.
- Arrange for the monitoring of earth-disturbing activities by members of the culturally affiliated tribe, including all archaeological surveys, testing, and studies, to be compensated by the developer.
- Implement the archaeologist's recommendations, subject to County approval.
- Agree to relinquish ownership of all artifacts that are found on the project area to the culturally affiliated tribe for proper treatment and disposition. (Policy CO-4.1, Policy CO-4.13)

***Action CO-A65*:** Require that when cultural resources (including non-tribal archeological and paleontological artifacts and human remains) are encountered during site preparation or construction, all work within the vicinity of the discovery is immediately halted and the area protected from further disturbance. The project applicant is required to immediately notify the County Coroner and the Planning and Public Works Department. Where human remains are determined to be Native American, the project applicant shall consult with the Native American Heritage Commission (NAHC) to determine the person most likely descended from the deceased. The applicant shall confer with the descendant to determine appropriate treatment for the human remains, consistent with State law. (Policy CO-4.1, Policy CO-4.11, Policy CO-4.12, Policy CO-4.13)

***Action CO-A66*:** Prohibit the removal of cultural resources from the project site except by a qualified consultant and after the County planning staff have been notified. Prehistoric resources include chert or obsidian flakes, projectile points, mortars, pestles, dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or adobe foundations and walls, structures and features with square nails, and refuse deposits often in old wells and privies. (Policy CO-4.1, Policy CO-4.11)

3.5.3 Applicant-Proposed Measures

Applicant-proposed measures (APMs) related to cultural resources would be implemented by PG&E as part of the Project.

- **APM CUL-1: Inadvertent Discoveries.** If cultural resources are encountered during construction activity, PG&E and/or its contractors shall halt work in the immediate vicinity of the find. The find shall be evaluated by a qualified archaeologist before construction activity may resume. If the qualified archaeologist determines that the find may be significant and if avoidance of the find is

determined to be infeasible, the archaeologist shall notify the lead agencies and shall follow approved procedures established for the treatment and mitigation of unanticipated discoveries in consultation with the lead agency. PG&E shall be responsible for the resultant mitigation costs.

- **APM CUL-2: Human Remains.** If human remains are discovered during construction or maintenance activities, all work shall be diverted from the area of the discovery and the CPUC shall be informed immediately. The Applicant shall contact the County Coroner to determine whether or not the remains are Native American. If the remains are determined to be Native American, the Coroner will contact the NAHC. The NAHC will then identify the person or persons it believes to be the most likely descendant of the deceased Native American, who in turn would make recommendations for the appropriate means of treating the human remains and any associated funerary objects.
- **APM CUL-3: Survey New or Modified Work Areas.** PG&E will perform cultural resources surveys prior to construction for any Project areas not yet surveyed (e.g., new or modified staging areas, or other work areas). Resources discovered during the surveys would be subject to CUL-1.
- **APM CUL-4: Worker Education Training.** The following procedures will be implemented prior to the commencement of any Project-related construction activities in order to ensure that appropriate steps/actions are taken in the event that there is an inadvertent discovery of a tribal or cultural resource:

  All PG&E, contractor, and subcontractor Project personnel will receive training regarding:

  - appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental laws and regulations;
  - the potential for exposing subsurface cultural resources;
  - the potential for uncovering Tribal Cultural Resources;
  - how to recognize possible buried cultural resources; and,
  - actions to be taken in the event there is an inadvertent discovery as outlined in APM CUL-1 and CUL 2.

3.5.4 Environmental Impacts

3.5.4.1 Methods and Assumptions

No historical resources, including archaeological and architectural resources, were identified based on the technical reports, background research, and archaeological sensitivity analysis described previously under *Known Resources* in Section 3.5.1, *Environmental Setting*. The following analysis of direct and indirect effects is based on the criteria identified in Appendix G of the CEQA Guidelines.

3.5.4.2 Direct and Indirect Effects

Criterion a) Whether the project would cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5: *No Impact.*

CEQA Guidelines Section 15064.5 requires the lead agency to consider the effects of a project on historical resources. The following discussion focuses on historic architectural and structural resources of the built environment. Archaeological resources, including those that are potentially historical resources according to CEQA Guidelines Section 15064.5, are addressed below under Criterion b).

As presented under *Method* and *Known Resources* in Section 3.5.1, *Environmental Setting*, the Plainfield Substation does not qualify as a historical resource under CEQA (Stantec 2024). Additionally, neither the Plainfield Substation nor any age-eligible buildings or structures within it contribute to a known or potential historic district that qualifies as a historical resource. Therefore, there are no historical resources within the Project site, and **no impact** would occur.

Criterion b) Whether the project would cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5: *Less-than-Significant Impact.*

This section discusses archaeological resources, both as historical resources according to CEQA Guidelines Section 15064.5 and unique archaeological resources as defined in PRC Section 21083.2(g). A significant impact would occur if the Project would cause a substantial adverse change to an archaeological resource through physical demolition, destruction, relocation, or alteration of the resource.

Based on the records search results, Sacred Lands File results, tribal consultation outreach communication, archaeological sensitivity analysis, and background research, the potential for the Project to affect archaeological resources is low.

Operation and maintenance of the Project would not affect archaeological resources because no ground disturbance would occur at depths greater than those reached during construction.

Although unlikely, the potential remains for unrecorded subsurface prehistoric archaeological material to be uncovered during proposed ground-disturbing activities. If any previously unrecorded archaeological resources are identified during Project ground-disturbing activities and are found to qualify as a historical resource per CEQA Guidelines Section 15064.5, or as a unique archaeological resource as defined in PRC Section 21083.2(g), any impacts of the Project on the resource could be potentially significant. To reduce impacts on undocumented archaeological resources, including any that may also qualify as tribal cultural resources, the Applicant would adhere to APMs CUL-1 through CUL-4 in the event of the discovery of any such resources during Project implementation. These APMs would provide cultural resources awareness training and a protocol to follow in the event of an inadvertent discovery of cultural resources or human remains during Project implementation. With implementation of these APMs, impacts related to the discovery of any archaeological resources during Project construction would be **less than significant**.

Criterion c) Whether the project would disturb any human remains, including those interred outside of dedicated cemeteries: *Less-than-Significant Impact.*

The records search and background research determined that no human remains are known to exist within the Project site. Therefore, the Project does not anticipate affecting human remains, including those interred outside of formal cemeteries.

Operation and maintenance of the Project would not affect human remains because no ground disturbance would occur at depths greater than those reached during construction.

In the unlikely event that Project construction-related ground-disturbing activities identify undiscovered human remains, the Applicant would comply with Government Code Section 27460 et seq., which requires that ground-disturbing activities halt until the county coroner can determine whether the remains

are subject to the provisions of Government Code Section 27491 or any other related provisions of law concerning the investigation of the circumstances, manner, and cause of death; and the required recommendations concerning the treatment and disposition of the human remains have been made. Pursuant to California Health and Safety Code Section 7050.5, the coroner would make a determination within 48 hours of notification of the discovery of the human remains. If the coroner determines that the remains are not subject to their authority and recognizes or has reason to believe that they are those of a Native American, the coroner would contact the NAHC within 24 hours. With Project compliance with existing regulations and implementation of APMs CUL-2 and CUL-4, the potential impact related to the accidental discovery of human remains would be **less than significant**.

3.5.5 References

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3.6 Energy

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
VI. 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?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒
c) Would the project add capacity for the purpose of serving a non-renewable energy resource?	☐	☐	☐	☒

3.6.1 Environmental Setting

3.6.1.1 California Energy System

California's energy system includes electricity, natural gas, and petroleum. According to the California Energy Commission (CEC), California's energy system generated 58 percent of the electricity, 44 percent of the natural gas, and less than 1 percent of the petroleum consumed or used in the state. The rest of the state's energy is imported and includes electricity from the Pacific Northwest and the Southwest; natural gas purchased from Canada, the Rocky Mountain states, and the Southwest; and petroleum imported from Alaska and foreign sources (CEC 2018, 2024a, 2024b).

Electricity

The production of electricity requires the consumption or conversion of energy resources, such as natural gas, coal, hydro, and nuclear, and renewable sources, such as wind, solar, and geothermal. Of the electricity generated in California, approximately 44 percent is generated by natural gas–fired power plants, 13 percent comes from large hydroelectric dams, 8 percent comes from nuclear power plants, and less than 1 percent is generated by coal-fired power plants. The remaining approximately 34 percent of total electricity production in the state is supplied by renewable sources including solar, biomass, geothermal, small hydro, and wind power (CEC 2024a).

Electricity is generated and then distributed via a network of high-voltage transmission lines collectively referred to as the *power grid*. Electricity-transmitting facilities, such as the PG&E Plainfield Substation, are an important part of the 60-kilovolt (kV) transmission system within Yolo County.

Fuels

Gasoline is, by far, the most-used transportation fuel by volume in California. Nearly all the gasoline used in the state is obtained through the retail market. In 2023, approximately 13.6 billion gallons of gasoline were sold in California's retail market (CDTFA 2024). Diesel fuel is the second most-used transportation fuel by volume in California. Approximately 64 percent of total diesel sales in California are associated with retail sales (CEC 2024c). In 2023, 3.5 billion gallons of diesel were sold in California (CEC 2024c). According to the U.S. Department of Energy's Energy Information Administration, nearly all semi-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm, construction, and military vehicles and equipment have diesel engines.

3.6.1.2 Local and Regional Energy Use

PG&E is an investor-owned utility company that provides electricity supplies and services throughout a 70,000-square-mile service area that extends from Eureka in the north to Bakersfield in the south, and from the Pacific Ocean in the west to the Sierra Nevada in the east. Yolo County is within PG&E's service area for electricity. **Table 3.6-1** provides the operating characteristics of PG&E's electricity consumption by sector in the PG&E service area, based on the latest available data from the CEC.

TABLE 3.6-1
ELECTRICITY CONSUMPTION IN THE PG&E SERVICE AREA (2022)

Agricultural and Water Pump	Commercial Building	Commercial Other	Industry	Mining and Construction	Residential	Streetlight	Total Usage
All Usage Expressed in Millions of kWh (GWh)							
7,506	26,928	4,056	10,092	1,814	27,210	281	77,887

NOTES: GWh = gigawatt-hours; kWh = kilowatt-hours; PG&E = Pacific Gas and Electric Company.
SOURCE: CEC 2024d

In Yolo County, approximately 1,797 million kilowatt-hours of electricity were consumed in 2022, with approximately 1,206 million kilowatt-hours consumed by non-residential uses (CEC 2024e).

Regular unleaded gasoline is used primarily to fuel passenger cars and small trucks. Diesel fuel is used primarily in large trucks and construction equipment. Both are used widely within Yolo County and across all parts of the PG&E service territory. In Yolo County, approximately 106 million gallons of gasoline and 39 million gallons of diesel were sold in 2022, and 99 million gallons of gasoline and 54 million gallons of diesel were sold in 2023 (CEC 2024c). This represents decreases in gasoline and diesel use of 10 percent and 6 percent, respectively, compared to the previous year.

Project Site Existing Energy Use

The Plainfield Substation and expansion site is in unincorporated Yolo County. The existing substation is equipped with two transformers, one rated at 60/12 kV 7.5 megavolt amperes (MVA) and the other rated at 115x60/12 kV 30 MVA. The expansion area has historically been used for growing corn and other row crops. Existing energy use at the Project site is primarily limited to electricity for security lighting at the substation site and to power irrigation pumps that provide water to the expansion area. Gasoline and diesel fuels are also periodically used at the Project site to power maintenance equipment at the substation and agricultural equipment at the expansion site.

3.6.2 Regulatory Framework

3.6.2.1 Federal

Corporate Average Fuel Economy Standards

Established by the U.S. Congress in 1975, the Corporate Average Fuel Economy standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration and U.S. Environmental Protection Agency jointly administer the standards. Congress has specified that these standards must be set at the "maximum feasible level" with consideration given to

(1) technological feasibility, (2) economic practicality, (3) effect of other standards on fuel economy, and (4) need for the nation to conserve energy.[6]

Energy Policy Act of 2005

The Energy Policy Act of 2005 seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under the act, consumers and businesses can obtain federal tax credits for purchasing fuel-efficient appliances and products, including buying hybrid vehicles, constructing energy-efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 facilitates increased use of renewable energy and increased energy efficiency by:

- Increasing the supply of alternative fuel sources, by establishing mandatory Renewable Fuel Standards that required fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Establishing miles-per-gallon targets for cars and light trucks. The act directed the National Highway Traffic Safety Administration to establish a fuel economy program for medium- and heavy-duty trucks and to create a separate fuel economy standard for trucks.

Additional provisions of the Energy Independence and Security Act address energy savings in government and public institutions, promoting research for alternative energy, promoting international energy programs, and creating "green jobs."[7]

3.6.2.2 State

Warren-Alquist Act

The 1975 Warren-Alquist Act (Public Resources Code Section 25000 et seq.) established the California Energy Resources Conservation and Development Commission, now known as the CEC. The act established a state policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The act was also the driving force behind the creation of CEQA Guidelines Appendix F, *Energy Conservation*.

State of California Integrated Energy Policy

In 2002, the Legislature enacted Senate Bill 1389, which required the CEC to develop an integrated energy plan biannually for electricity, natural gas, and transportation fuels for the California Energy Report. Senate Bill 1389 requires the CEC to prepare a biennial Integrated Energy Policy Report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors. This report provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public

[6] For more information on the Corporate Average Fuel Economy standards, see https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy.

[7] A *green job*, as defined by the U.S. Department of Labor, is a job in business that produces goods or provides services that benefit the environment or conserve natural resources.

health and safety (Public Resources Code Section 25301[a]). The Integrated Energy Policy Report has replaced the Energy Action Plan as the chief program intended to provide a comprehensive statewide energy strategy to guide energy investments, energy-related regulatory efforts, and greenhouse gas (GHG) reduction measures. The Integrated Energy Policy Report, the latest published report from the CEC, provides the results of the CEC's assessments related to energy sector trends, including energy equity, and forecasts of electricity and transportation energy demand.

Air Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

In 2004, the California Air Resources Board adopted the Airborne Toxic Control Measure to limit diesel-fueled commercial motor vehicle idling to reduce public exposure to diesel particulate matter emissions (California Code of Regulations Title 13, Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure prohibits diesel-fueled commercial vehicles from idling for more than 5 minutes at any given location. Although the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in GHG reduction and energy savings in the form of reduced fuel consumption from unnecessary idling.

California Energy Action Plan

California's *2008 Energy Action Plan Update* revised the *2005 Energy Action Plan II,* which is the state's principal energy planning and policy document. The *2008 Energy Action Plan Update* maintains the goals of the original Energy Action Plan and describes a coordinated implementation plan for state energy policies. It also identifies specific action areas to ensure that California's energy is adequate, affordable, technologically advanced, and environmentally sound. First-priority actions to address California's increasing energy demands are to promote energy efficiency, response to demand (i.e., to reduce customer energy usage during peak periods to address power system reliability and support the best use of energy infrastructure), and use of renewable power sources. To the extent that these strategies are unable to satisfy increasing energy and capacity needs, the plan supports clean and efficient fossil fuel–fired generation.

Renewables Portfolio Standard

In 2002 and 2015, the State of California adopted standards to increase the percentage of electricity that retail sellers, including investor-owned utilities and community choice aggregators, must provide from renewable resources. The standards are referred to as the Renewables Portfolio Standard (RPS). The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program. In 2018, the RPS was increased to require utility providers to have 60 percent of their electricity portfolio supplied by renewable energy sources by 2030 and all of their electricity portfolio to come from carbon-free resources by 2045.

3.6.2.3 Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order 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 following discussion presents

local policies and regulations for informational purposes only; the CPUC does not consider these regulations "applicable" as that term is used in CEQA.

Yolo County General Plan

The Yolo County General Plan's Conservation and Open Space Element includes goals and policies designed to conserve energy in the county; however, they are not directly applicable to the Project (Yolo County 2018).

3.6.3 Applicant-Proposed Measures

Applicant-proposed measures (APMs) related to energy would be implemented by PG&E as part of the Project. **APMs GHG-1** and **GHG-2** pertain to GHG emissions during construction, and also transportation energy consumption during construction by addressing the unnecessary use of construction vehicles and idling times. These measures require shutting off a vehicle's engine if the vehicle need not be used immediately or continuously for construction activities (see APMs GHG-1 and GHG-2 in Section 3.8, *Greenhouse Gas Emissions*).

There are no APMs or PG&E-proposed measures (avoidance and minimization measures or best management practices) specific to energy consumption.

3.6.4 Environmental Impacts

3.6.4.1 Methodology and Assumptions

Consistent with CEQA Guidelines Appendices F and G, this impact analysis evaluates the potential for the Project to result in a substantial increase in energy demand and/or wasteful use of energy during Project construction and operation and maintenance (O&M). 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. Environmental Science Associates reviewed the Proponent's Environmental Assessment appendix and found that the fuel use amounts presented in that document did not correctly correspond with the represented equipment types, so that information was corrected. See Appendix B.

3.6.4.2 Direct and Indirect Effects

Criterion a) Whether the project would 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.*

Construction

The analysis in this section utilizes the horsepower, total hours, load factor, and fuel consumption rate estimates identified in Appendix B, *Fuel Usage*, to estimate gasoline and diesel fuel consumption volumes for Project construction–related equipment and vehicles. The fuel use for construction is summarized below.

During construction, fuel consumption would result from the use of construction tools and equipment, haul truck trips, and vehicle trips by workers traveling to and from the Project site. Construction is expected to consume approximately 82,208 gallons of diesel fuel from off-road construction equipment, 44,575 gallons of gasoline from construction worker vehicle trips, and 90,087 gallons of diesel from haul truck trips. For reference, approximately 99 million gallons of gasoline and 54 million gallons of diesel were sold in Yolo County in 2022 (CEC 2024c). Construction activities and corresponding fuel energy consumption would be temporary and localized; the use of diesel fuel by heavy-duty equipment would not typically occur during Project operation.

Project-specific construction-related energy demands would not be expected to have a significant adverse effect on energy resources. The amount, form, and use of energy required for construction and decommissioning activities would not be wasteful, inefficient, or unnecessary. Therefore, energy consumption by Project construction activities would result in a **less-than-significant** impact pertaining to wasteful, inefficient, or unnecessary consumption of energy.

Operation and Maintenance

In general, routine O&M of the Project would be substantially the same as current activities. Therefore, O&M would not result in the wasteful, inefficient, and/or unnecessary consumption of energy. The impact would be **less than significant**.

Criterion b) Whether the Project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency: *No Impact.*

Energy standards mentioned in Section 3.6.2, *Regulatory Framework*, such as the Energy Policy Act of 2005 and the RPS, promote strategic planning and building standards that reduce consumption of fossil fuels, increase use of renewable resources, and enhance energy efficiency. In general, these regulations and policies specify strategies to reduce fuel consumption and increase fuel efficiency and energy conservation. If the Project were to use energy resources in a wasteful manner, it would conflict with state energy standards.

Project construction and O&M would be conducted in a manner consistent with the goals and strategies of state energy standards. By complying with the state's regulation for in-use off-road diesel vehicles that requires idling limitations to no more than 5 minutes, the Project would ensure that fuel energy consumed during the construction phase would not be wasted through unnecessary idling. In addition, PG&E would implement APM GHG-2, which would impose idling restrictions and would result in less fuel combustion and energy consumption, thus reducing the Project's construction-related energy use. Project construction would be short-term and would not result in the permanent increased use of non-renewable energy resources.

There would be a minor increase in demand for electricity during the Project's construction and operation phases compared to existing energy use on the Project site. However, this would not conflict with the long-term goals of the RPS program, as the energy used on-site would be provided by PG&E, which is required to comply with the RPS. Additionally, given the negligible amount of electricity required, the Project would not affect peak or base power demands, nor would it affect the ability of electricity generation facilities to provide and maintain existing levels of service during peak and base periods.

Consequently, the Project would cause no adverse impact related to the demand for electricity or other forms of energy.

Overall, the Project would increase the efficiency of the existing transmission network while utilizing energy generated for the PG&E system that is compliant with the RPS. Increasing the efficiency of the existing transmission network would improve California's ability to supply renewable energy to end-use customers, specifically within the greater PG&E service area, and to achieve statewide renewable energy goals. Additionally, when considering the implementation of the RPS program, the Project would not prevent renewable energy sources from being used as a source of electricity in the future.

Project operation would include ongoing maintenance activities that would require the use of trucks and equipment that use non-renewable fuels. Fuel use for Project O&M would be minimal, requiring a negligible percentage of the overall fuel supplied to the Yolo County area. O&M fuel use associated with the Project would be neither wasteful nor inefficient and would not conflict with current energy conservation standards. **No impact** would occur.

Criterion c) Whether the Project would add capacity for the purpose of serving a non-renewable energy resource: *No Impact.*

The Project would not increase energy capacity for the purpose of serving a non-renewable energy resource. Instead, it would increase service reliability by correcting low-voltage issues on the existing 60 kV power lines and alleviating overload conditions due to growing load in the existing system. Therefore, **no impact** would occur.

3.6.5 References

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3.7 Geology and Soils

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
VII. 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.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
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?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
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?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

3.7.1 Environmental Setting

3.7.1.1 Study Area

The study area for this analysis of potential impacts related to geology, soils, and paleontological resources is limited to the Project site and its immediately adjacent area, with the exception of seismic impacts. This is because Project impacts related to these resources are generally site-specific and depend on the nature of the existing geologic and soil units. For example, erosion impacts would be limited to the Project site and possibly the adjacent properties. For seismic impacts, the study area extends to the San Andreas fault zone, approximately 30 miles west of the Project site. This is the extent of the study area for seismicity because seismic shaking from active faults such as the San Andreas fault zone could adversely affect the Project site.

This analysis is based on a geotechnical investigation report (Kleinfelder 2022) and a paleontological assessment for an adjacent project (Aspen Environmental Group 2021). The preparers of this draft IS/MND independently reviewed the Web Soil Survey Application from the U.S. Natural Resources Conservation Service (NRCS 2024) and determined them to be adequate to include in this analysis, in combination with other materials included in the formal record.

3.7.1.2 Regional Geology

The Project site lies within the central portion of the Great Valley geomorphic province of California. The province is bordered to the north by the Cascade Range and Klamath Mountains, to the west by the structurally complex sedimentary and volcanic rock units of the Coast Ranges, to the east by the granitic and metamorphic basement rocks that form the gently sloping western foothills of the Sierra Nevada, and to the south by the east-west trending Transverse Ranges. The Great Valley is about 645 kilometers long and 80 kilometers wide and was formed during the late Tertiary and Quaternary periods.[8] Within the Project area, erosion of the adjacent Sierra Nevada and Coast Ranges has in-filled this valley with a thick sequence of unconsolidated to semi-consolidated Quaternary (Pleistocene and Holocene)[9] age alluvial, basin, and delta plain sediments deposited by the Sacramento and San Joaquin rivers and their tributaries (Kleinfelder 2022).

3.7.1.3 Local Geology

Within the Project area, erosion of the adjacent Sierra Nevada and Coast Ranges has in-filled this valley with a thick sequence of unconsolidated to semi-consolidated Quaternary (Pleistocene and Holocene) age alluvial, basin, and delta plain sediments deposited by the Sacramento and San Joaquin rivers and their tributaries. The thickness of the valley sediments varies from a thin veneer at the edges of the valley to thousands of meters in the western portion. The bedrock complex is likely composed of metamorphosed marine sediments similar to those found in the foothills of the western Sierra Nevada and the core of the Coast Ranges.

Various geologists have locally mapped the site as underlain by Holocene-age (about the last 11,700 years) basin deposits. Basin deposits are described as fine-grained silt and clay derived from modern streams that drain the Coast Ranges, Klamath Mountains, and Sierra Nevada (Kleinfelder 2022).

Soils

The upper approximately 2 feet of the on-site soils have likely been disturbed by past agricultural activities (e.g., plowing, ripping, installation and removal of subsurface drip irrigation, removal of crop root zones).

The geotechnical investigation report identified the soils on-site. The top layer consists of medium-stiff to hard, high-plasticity fat clay from the ground surface to approximately 7.5 to 15 feet belowground. This top layer is underlain by alternating layers of medium-stiff to hard, medium- to high-plasticity lean and fat clay with varying percentages of sand to depths ranging from approximately 30 to 35 feet belowground. The second layer is then underlain by medium to very dense poorly graded sand with silt and clay and gravel and lean clay layers to the maximum depth explored (Kleinfelder 2022).

As identified in the geotechnical investigation report, soils present on the Project site may be classified as Site Class D, Stiff Soil, as defined by 2019/22 California Building Code (CBC) Section 1613.2.2 and Table 20.3-1 of American Society of Civil Engineers 7-16 (dated 2016). Site Class D is defined as a profile consisting of stiff soil with a shear wave velocity between 600 and 1,200 feet per second, standard

[8] Late Tertiary to Quaternary time is from about 23 million years ago to the present.

[9] Pleistocene and Holocene time is from 2.6 million years ago to the present.

penetration test blow counts between 15 and 50 blows per foot, or undrained shear strength between 1,000 and 2,000 pounds per square foot in the top 100 feet (Kleinfelder 2022).

3.7.1.4 Seismic and Geologic Hazards

Faults and Seismicity

Faults are planar features within Earth's crust that have formed to release strain caused by the dynamic movements of its major tectonic plates. An earthquake on a fault is produced when these strains overcome the inherent strength of Earth's crust and the rock ruptures. The rupture causes seismic waves that propagate through the 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 Earth's surface.

Geologists commonly use the age of offset rocks as evidence of fault activity. The younger the displaced rocks, the more recent earthquakes have occurred. To evaluate the likelihood that a fault would produce an earthquake, geologists examine the magnitude and frequency of recorded earthquakes and evidence of past displacement along a fault. The California Geological Survey defines an *active fault* as one that has had surface displacement within Holocene time (within the last 11,700 years); the U.S. Geological Survey uses displacement within the last 15,000 years to define an active fault. A *Quaternary fault* is defined as a fault that has shown evidence of surface displacement during the Quaternary period (the last 2.6 million years) unless direct geologic evidence demonstrates inactivity during the Holocene or longer.

Surface Fault Rupture

The State of California has established "Alquist-Priolo Special Studies Zones" in areas where Holocene faults pose a risk of surface displacement. The Alquist-Priolo Earthquake Fault Zoning Act of 1972 regulates construction and development of buildings intended for human occupancy to avoid rupture hazards from surface faults. An active fault is defined as one that has moved within Holocene time (about the last 11,700 years). A *potentially active fault* is defined by the state as a fault with a history of movement within Pleistocene time (between 2.6 million and 11,700 years ago). As documented in the geotechnical investigation report, the Project site is not situated within an Alquist-Priolo earthquake fault zone. The nearest zoned active fault is the Dunnigan Hills fault, approximately 8 miles northwest of the Project site. In addition, the Vaca fault zone is approximately 20 miles southwest from the site (Kleinfelder 2022).

Seismic Ground Shaking

Several factors influence how ground motion interacts with structures, making the impact hazard of ground shaking difficult to predict. Seismic waves propagating through Earth's crust are responsible for the ground vibrations normally felt during an earthquake. Seismic waves can vibrate in any direction and at different frequencies, depending on the frequency content of the earthquake, its rupture mechanism, the distance from the seismic epicenter, and the path and material through which the waves are propagating. Based on the regional geologic maps and the subsurface investigation conducted for the Project, the site classification for the Project area, as defined in CBC Section 1613.2.2, may be a Site Class D, Stiff Soil Profile (Kleinfelder 2022). Stiffer soils generally experience less ground acceleration from seismic ground shaking.

Liquefaction

Liquefaction occurs where strong ground motions produce a rise in pore water pressures that in turn causes granular material to briefly lose strength and liquefy. This can lead to settlement, lateral spreading,

and damage to structures, even in areas of flat topography. Ground motions have the potential to trigger liquefaction in areas of unconsolidated granular sediment and shallow groundwater. The risk of liquefaction is highest in areas with high predicted ground motions, unconsolidated sediments, and shallow groundwater.

Groundwater depths in the Project area are approximately 30 feet below the existing grade. However, the site investigation conducted for the geotechnical investigation report did not identify potentially liquefiable layers on the Project site (Kleinfelder 2022).

Landslides

Landslides typically occur on moderate to steep slopes when masses of rock or earth move down a slope. Landslides can be caused by natural events (e.g., rainfall, earthquakes, and soil erosion) or human activities (e.g., grading) that can result in unstable fill slopes or excessive cuts. Important factors affecting slope stability include the steepness of the slope and the strength of rock or soil materials.

The ground surface in the Project area includes graded and compacted soil, surface gravel, and pavement and is generally flat. No records of major historical landslides were found for the Project site; the closest historical landslide was approximately 15 miles to the west on State Route 128 in Napa County (CGS 2024). The Project site is not located in an area that is susceptible to landslides (USGS 2024a).

Soil Erosion

The U.S. Natural Resources Conservation Service has developed a rating, known as the *erodibility factor* or *K-factor*, to evaluate the susceptibility of soils to erosion by water. The soil erodibility factor (K) represents (1) the susceptibility of soil or surface material to erosion; (2) the transportability of the sediment; and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition (State Water Board 2024). K-factor ratings are numbered 0.00 through 0.65, with 0.00 to 0.25 being considered low, 0.25 to 0.45 being moderate, and 0.45 to 0.65 being high. The soil on-site has low to moderate susceptibility to erosion, with a K value of 0.28 (NRCS 2024).

Wind erosion is similarly most prevalent in silty and fine sandy soils with sparse vegetation. Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion. Wind erodibility is rated on a scale of 0–310, with 0 being soils that are not susceptible to wind erosion due to coarse fragments or wetness and 310 being soils made of very fine sand, fine sand, sand, or coarse sand that are highly susceptible to wind erosion (NRCS 2002). Sands of different textures vary from 160 to 310 but are often found together, so it is assumed that soils made up of these groups are somewhere within the range of 160–310. Soil found at the Project site has medium to high wind erodibility ratings, with soil at the Project site having a wind erodibility rating of 86 (NRCS 2024).

Collapsible Soils

A *collapsible soil* is defined by the U.S. Bureau of Reclamation as any unsaturated soil that goes through a radical rearrangement of particles and great decrease in volume upon wetting, additional loading, or both (Reclamation 1992). Collapse occurs as water enters the pores between the individual sand and silt grains and weakens the “bonding” of the clays or other binding agents. Overburden or applied weight causes soil particles to slide across one another (shear), filling voids and reducing the overall volume of the soil (NRCS 2004). Soils susceptible to collapse typically contain a large amount of void space, have a low bulk density, are geologically young, have a clay content of less than 30 percent, and have a large

percentage of pore space (in the range of 40–60 percent). Soils at the Project site are clay rich down to about 35 feet in depth. Therefore, these soils would not be considered susceptible to collapse.

Expansive Soils

Expansive soils are soils that are prone to large volume changes (shrinking and swelling), which are directly related to changing moisture conditions. The swelling capacity can cause heaving or lifting of structures while shrinkage can cause differential settlement. *Linear extensibility percent* is the linear expression of the volume difference of natural soil.

The soils present on the Project site's ground surface consist of highly plastic fat clay (liquid limit[10] ranging from 53 to 59 and plasticity index ranging from 27 to 33[11]) from the surface to a depth of approximately 7.5 feet below. The fat clay soils may shrink or swell as a result of seasonal changes in soil moisture content. On this basis, the fat clay soils are not suitable for foundation subgrade or for reuse as engineered fill in structure areas (Kleinfelder 2022).

Subsidence

Subsidence is most often caused by the withdrawal of large volumes of fluids (groundwater or crude oil) from underground reservoirs, but it can also result from the addition of surface water to certain types of soils. Subsidence has been previously recorded in Yolo County, including areas beneath the Project site, as a result of groundwater pumping (USGS 2024b).

3.7.1.5 Paleontological Resources

Paleontological resources, or *fossils*, are the evidence of once-living organisms preserved in the rock record. They include both the fossilized remains of ancient plants and animals and the traces thereof (e.g., trackways, imprints, burrows). Fossils greater than 5,000 years old (i.e., older than middle Holocene in age) may be considered potential paleontological resources and are typically preserved in sedimentary rocks. Although they are rare, fossils can also be preserved in volcanic rocks and low-grade metamorphic rocks under certain conditions. Fossils occur in a non-continuous and often unpredictable distribution within some sedimentary units, and the potential for fossils to occur within sedimentary units depends on several factors.

A paleontological assessment for the Wilbur Ellis Consolidation Facility property adjacent to the Project site was prepared in 2021 (Aspen Environmental Group 2021). The mapping and records search cover approximately the same area as the Project site. A literature search conducted by Aspen Environmental Group found five localities of Pleistocene vertebrate and avian fossils in Yolo County: three from Davis, one from a railroad stop known as Black's Station, and one from Woodland (Aspen Environmental Group 2021). One Pleistocene vertebrate fossil locality in the Red Bluff Formation, two localities in undifferentiated Pleistocene sediment, and three along Putah Creek were listed in the Cultural Resources section of the Yolo County General Plan EIR (Yolo County 2009a).

[10] The liquid limit of a soil is one of the standard Atterberg limits used to indicate the plasticity characteristics of a soil. It is the water content, on a percent by weight basis, of the soil at which the soil changes from a plastic to a liquid state.

[11] The plasticity index indicates the plasticity characteristics of the soil. It is the range of water content in which a soil exhibits the characteristics of a plastic solid.

The paleontological assessment included a records search report from the University of California Museum of Paleontology. The report showed the closest fossil locality 3 miles southeast of the Project site in the Modesto Formation (Pleistocene Epoch). The fossil locality included seven mammal fossils and one reptile fossil (Aspen Environmental Group 2021).

3.7.2 Regulatory Framework

3.7.2.1 Federal

Clean Water Act

The federal Clean Water Act (CWA) and subsequent amendments, under the enforcement authority of the U.S. Environmental Protection Agency, were enacted "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The purpose of the CWA is to protect and maintain the quality and integrity of the nation's waters by requiring states to develop and implement state water plans and policies. The CWA gave the U.S. Environmental Protection Agency the authority to implement pollution control programs such as setting wastewater standards for industry.

The CWA also sets water quality standards for surface waters and established the National Pollutant Discharge Elimination System (NPDES) program to protect water quality through various sections of the CWA, including Sections 401–404 and 303(d). In California, implementation and enforcement of the NPDES program is conducted through the State Water Resources Control Board and the nine regional water quality control boards.

National Earthquake Hazards Reduction Act of 1977

The National Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) created the National Earthquake Hazards Reduction Program, a long-term earthquake risk reduction program intended to promote better understanding, prediction, and mitigation of risks from seismic events. Four federal agencies are responsible for coordinating activities under the National Earthquake Hazards Reduction Program: the U.S. Geological Survey, National Science Foundation, Federal Emergency Management Agency, and National Institute of Standards and Technology. Since its inception, the program has shifted its focus from earthquake prediction to hazard reduction. The current program objectives are as follows:

- Improve understanding of earthquake processes and impacts.
- Develop cost-effective measures to reduce earthquake impacts on individuals, the built environment, and society at large.
- Improve the earthquake resilience of communities nationwide.

The National Earthquake Hazards Reduction Program's objectives are accomplished primarily through original research, publications, and recommendations and guidelines for state, regional, and local agencies in the development of plans and policies to promote safety and emergency planning.

3.7.2.2 State

California Public Utilities Commission General Order 95

The Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC) has jurisdiction over the safety of overhead and underground electric and communications lines and construction of all investor-owned utilities, co-ops, and municipalities. CPUC General Order 95, *Rules for Overhead Line Construction*, provides general standards for the design, construction, and maintenance of overhead electrical supply and communication facilities under CPUC jurisdiction. "Facilities" include power lines, service drop lines, conductors, towers, poles, and other structures.

California Building Code

The Project would be subject to the applicable sections of CBC Title 24, Part 2, which is administered by the California Building Standards Commission. Under state law, all building standards must be centralized in Title 24 to be enforceable. The CBC contains necessary California amendments, which are based on American Society of Civil Engineers/Structural Engineering Institute standards. These standards provide requirements for general structural design; they include means for determining earthquake loads and other loads for inclusion into building codes. The earthquake design requirements take into account the occupancy category of the structure, site class, soil classifications, and various seismic coefficients, which are used to determine a project's seismic design category. Once a project is categorized according to a seismic design category, design specifications can be determined. The CBC provisions apply to the construction, alteration, movement, replacement, and demolition of every building or structure—or any appurtenances connected or attached to such buildings or structures—throughout California.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was enacted in 1972 to protect structures for human occupancy from the hazard of surface faulting. In accordance with this law, the State Geologist has established regulatory zones called *earthquake fault zones* around the surface traces of active faults and has published maps showing these zones. Buildings for human occupancy cannot be constructed across surface traces of faults that are determined to be active. Because many active faults are complex and consist of more than one branch that may experience ground surface rupture, earthquake fault zones extend approximately 200–500 feet on either side of the mapped fault trace.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (California Public Resources Code, Sections 2690–2699.6) directs the California Geological Survey to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of this program is to minimize the loss of life and property by identifying, evaluating, and mitigating seismic hazards. Seismic hazard zone maps that identify Zones of Required Investigation have been generated as a result of the program. Counties and cities are then required to use the seismic hazard zone maps in their land use planning and building permit processes. The Project site is in an area that has not yet been mapped as part of the Seismic Hazards Mapping Act.

National Pollutant Discharge Elimination System Construction General Permit

Project construction would be subject to the *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Order 2022-0057-DWQ, NPDES No. CAS000002), commonly referred to as the Construction General Permit. The Construction General Permit regulates discharges of sediment and other pollutants in stormwater generated by construction activity into waters of the United States, where project construction disturbs 1 acre or more of land surface or the project is part of a common plan of development or sale disturbing more than 1 acre of land surface. The permit regulates stormwater discharges during construction or demolition activities, such as clearing and excavation; building construction; and linear underground projects, including installation of water pipelines and other utility lines.

The Construction General Permit requires that construction sites be assigned a risk level of 1 (low), 2 (medium), or 3 (high), based both on the risk of sediment transport at the site and on the risk to receiving waters during periods of soil exposure (e.g., grading and site stabilization). The sediment risk level reflects the relative amount of sediment could be discharged to receiving water bodies and is based on the nature of the construction activities and the location of the site relative to receiving water bodies. The risk level for receiving waters reflects the risk to the receiving waters from the sediment discharge. Depending on the risk level, the construction projects could be subject to the following requirements:

- Effluent standards.
- Good site management "housekeeping."
- Non-stormwater management.
- Erosion and sediment controls.
- Run-on and runoff controls.
- Inspection, maintenance, and repair.
- Monitoring and reporting requirements.

The Construction General Permit requires that the project develop and implement a storm water pollution prevention plan (SWPPP) that includes best management practices (BMPs) to prevent sediment and other pollutants from contacting stormwater and moving off-site into receiving waters. The BMPs fall into several categories—erosion control, sediment control, waste management, and good housekeeping—and are intended to protect surface water quality by preventing eroded soil and construction-related pollutants from migrating off-site. The Construction General Permit requires routine inspection of all BMPs. In addition, the SWPPP must contain a visual monitoring program, a chemical monitoring program for non-visible pollutants, and a sediment monitoring plan if the site discharges directly to a water body that is included on the CWA Section 303(d) list for sediment.

The SWPPP must be prepared before construction begins. The SWPPP must list BMPs and the placement of the BMPs that the project applicant would use to protect stormwater runoff. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants, to be implemented should any BMPs fail; and a plan for monitoring sediment if the site discharges directly to a water body included on the CWA Section 303(d) list for sediment. Examples of typical construction BMPs include scheduling or limiting certain activities to dry periods, installing sediment barriers such as a silt fence and fiber rolls, and maintaining construction equipment and vehicles. Non-stormwater

management measures include installing specific discharge controls during certain activities, such as paving operations and the washing and fueling of vehicles and equipment. The Construction General Permit also sets post-construction standards (i.e., BMPs to be implemented to reduce pollutants in stormwater discharges from the site after construction).

In the Project area, the Construction General Permit is implemented and enforced by the Central Valley Regional Water Quality Control Board, which administers the stormwater permitting program. Dischargers must notify the Central Valley Regional Water Quality Control Board of violations or incidents of noncompliance and submit annual reports that identify deficiencies in the BMPs and explain how the deficiencies were corrected. The risk assessment and SWPPP must be prepared by a State Qualified SWPPP Developer, and implementation of the SWPPP must be overseen by a State Qualified SWPPP Practitioner.

California Environmental Quality Act

CEQA requires that public agencies and private interests identify the potential environmental consequences of their projects on any object or site of significance to the scientific annals of California (California Public Resources Code Section 5020.1[b]). Appendix G of the CEQA Guidelines provides an environmental checklist of questions that includes the following: "Would the project directly or indirectly destroy a unique paleontological resource or site?"

CEQA does not define a "unique paleontological resource or site." However, the Society of Vertebrate Paleontology has provided guidance designed to support federal and state environmental review. The Society of Vertebrate Paleontology broadly defines *significant paleontological resources* as follows (SVP 2010):

> *[F]ossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years).*

Significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, or diagnostically important, or are common but have the potential to provide valuable scientific information for evaluating evolutionary patterns and processes, or that could improve researchers' understanding of paleochronology, paleoecology, or depositional histories. New or unique specimens can provide new insights into evolutionary history; however, additional specimens of even well-represented lineages can be equally important for studying evolutionary pattern and process, and evolutionary rates. Even unidentifiable material can provide useful data for dating geologic units if radiocarbon dating is possible. Therefore, common fossils (especially vertebrates) may be scientifically important, and therefore considered significant.

California Public Resources Code Section 5097.5

Public Resources Code Section 5097.5 states:

> *No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency,*

> *or any other archaeological, paleontological, or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.*

As used in Section 5097.5, *public lands* means lands owned by, or under the jurisdiction of, the state or any city, county, district, authority, or public corporation, or any agency thereof. Consequently, public agencies are required to comply with Public Resources Code Section 5097.5 for their own activities, including construction and maintenance, and for permit actions (e.g., encroachment permits) undertaken by others.

3.7.2.3 Local

Because the CPUC has exclusive jurisdiction over the siting, design, and construction of the Project, the Project is not subject to local discretionary regulations. Current Project plans do not require the installation of any facilities that would require a building permit; however, if plans were to change during the final design of the Project, PG&E would obtain a building permit or other required ministerial permits.

County of Yolo General Plan

The *Conservation and Open Space Element* and the *Health and Safety Element* of the Yolo County General Plan includes the following goal, policies, and actions related to geology and soils that are relevant to the Project:

> ***Policy CO-3.5*:** Preserve and protect the County's unique geologic and physical features, which include geologic or soil "type localities", and formations or outcrops of special interest.
>
> *Action CO-A61* of the Conservation and Open Space Element of the Yolo County General Plan (Yolo County 2009b) requires cultural resources inventories of all new development projects in areas where a preliminary site survey indicates a medium or high potential for archaeological, historical, or paleontological resources. In addition, it requires a mitigation plan to protect the resource before the issuance of permits. Mitigation may include any of the following actions:
>
> - Having a qualified paleontologist present during initial grading or trenching.
> - Redesigning the project to avoid paleontological resources.
> - Capping the site with a layer of fill.
> - Excavating and removing paleontological resources and curating those resources in an appropriate facility under the direction of a qualified professional (Policy CO-4.1, Policy CO-4.13).
>
> *Action CO-A63* of the Conservation and Open Space Element states that when paleontological artifacts are encountered during site preparation or construction, all work within the vicinity of the discovery must be immediately halted and the area must be protected from further disturbance.

GOAL HS-1: Geologic Hazards. Protect the public and reduce damage to property from earthquakes and other geologic hazards.

> ***Policy HS-1.1*:** Regulate land development to avoid unreasonable exposure to geologic hazards.

***Policy HS-1.2*:** All development and construction proposals shall be reviewed by the County to ensure conformance to applicable building standards.

***Policy HS-1.3*:** Require environmental documents prepared in connection with CEQA to address seismic safety issues and to provide adequate mitigation for existing and potential hazards identified.

3.7.3 Applicant-Proposed Measures

PG&E would implement the following Applicant-proposed measures (APMs) related to geology, soils, and paleontology as part of the Project.

- **APM BIO-2: Erosion and Sediment Control Measures.** A Stormwater Pollution Prevention Plan (SWPPP) will be implemented to ensure effective erosion and sediment control measures will be in place at all times during construction.
- **APM GS-1: Minimization of Construction above Liquefiable Soils or in Soft or Loose Soils.** PG&E will conduct geotechnical investigations prior to construction to identify liquefiable, soft, or loose soils, and implement design and civil engineering standards in accordance with the CBC and the CPUC's General Order 95.
- **APM GS-2: Unanticipated Discovery of Paleontological Resources.** If paleontological resources are discovered during construction activities, the following procedures will be followed:
  - Work will be stopped immediately within 100 feet of the discovery.
  - The designated Project inspector, PG&E Cultural Resource Specialist (CRS), and the CPUC will be contacted immediately.
  - The site will be protected from further impacts, including looting, erosion, or other human or natural damage.
  - PG&E's CRS will arrange for a Principal Paleontologist to evaluate the discovery. If the discovery is determined to be significant, PG&E will consult with the CPUC and implement appropriate measures to protect and document the paleontological resource. Examples of such measures include establishing recovery standards, preparing specimens for identification and preservation, and securing a curation agreement from the appropriate agency.
  - Work will not resume within 100 feet of the find until approval by the paleontologist, PG&E CRS, and the CPUC.
- **APM HYDRO-1: Stormwater Pollution Prevention Plan.** Because the Project involves more than an acre of soil disturbance, PG&E will prepare and implement a SWPPP to help stabilize disturbed areas and reduce erosion and sedimentation. A monitoring program will also be established to confirm that the prescribed BMPs are followed during Project construction. A qualified SWPPP practitioner will oversee the implementation of the SWPPP and associated BMPs. The following measures are generally drawn from the permit and will be included in the SWPPP prepared for the construction of the Project:
  - All BMPs will be on site and ready for installation before the start of construction activities;
  - BMPs will be developed to prevent the acceleration of natural erosion and sedimentation rates, such as the use of silt fence and wattles, and to limit track out of mud and sediment into roadways during construction; and

– Prior to conducting clearing activities during the wet season and before the onset of winter rains or any anticipated storm events, erosion-control measures will be installed. Temporary measures such as silt fences or wattles, which are intended to minimize sediment transport from temporarily disturbed areas, will remain in place until disturbed areas have stabilized.

3.7.4 Environmental Impacts

3.7.4.1 Methodology and Assumptions

This environmental analysis of potential impacts related to geology, soils, and paleontological resources from the construction and operation and maintenance of the Project is based on the following:

- A review of the results of the site-specific preliminary geotechnical investigation of the Plainfield Substation.
- A review of literature and database research (i.e., geologic, seismic, soils, and paleontological resources reports and maps).
- The paleontological resources investigation for an adjacent project.
- The Yolo County General Plan.
- Information regarding proposed construction details, potential uses, and associated operations of the Project as described in Chapter 2, *Project Description*.

The Project would be regulated by the laws, regulations, and policies summarized in Section 3.7.2, *Regulatory Framework*. This analysis assumes, consistent with the APMs described in Section 2.5.5, *Applicant-Proposed Measures,* that the Project would comply with applicable federal, state, and local laws and regulations. This analysis also assumes that federal, state, and local agencies would continue to enforce applicable requirements to the extent that they do so now. Compliance with many of the regulations is an independently enforceable condition of permit approvals.

After considering implementation of the Project as described in Chapter 2, *Project Description*, and compliance with regulatory requirements, the following environmental analysis identifies whether the Project would exceed the defined significance thresholds and whether a significant impact would occur.

The Project's structural elements would undergo appropriate design-level geotechnical evaluations before final design and construction. The Project engineers and building officials would be responsible for implementing the regulatory requirements in CPUC General Order 95, the CBC, and local ordinances and for ensuring that all buildings and structures are constructed in compliance with the law. The geotechnical engineer, as a registered professional with the State of California, would be required to comply with CPUC General Order 95, the CBC, and local codes while applying standard engineering practices and the appropriate standard of care for the particular region in California, which for this Project is Yolo County. The California Professional Engineers Act (Business and Professions Code Sections 6700–6799) and the Codes of Professional Conduct, as administered by the California Board of Professional Engineers and Land Surveyors, provide the basis for regulating and enforcing engineering practices in California. Local building officials, typically with the local jurisdiction, are responsible for conducting inspections and ensuring compliance with CPUC General Order 95, the CBC, and local codes before approval of the building permit.

3.7.4.2 Direct and Indirect Effects

Criterion ai) 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 (refer to Division of Mines and Geology Special Publication 42): *No Impact.*

As documented in the geotechnical investigation report and as discussed in Section 3.7.1, *Environmental Setting*, the Project site is not situated within an Alquist-Priolo Earthquake Fault Zone. Although the area could be affected by earthquakes or seismic ground shaking, no current data are available indicating the presence of Holocene-active faults within the Project site. The nearest earthquake fault zones to the Project site are the Dunnigan Hills fault and the Vaca fault zone. The Project does not include any habitable structures and would not expose people or structures to potential substantial adverse effects associated with rupture of a known earthquake fault. The Project would result in no impact related to the rupture of a known earthquake fault. Therefore, **no impact** would occur.

Criteria aii–aiii) 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 or liquefaction: *Less-than-Significant Impact.*

The Project would be subject to moderate to severe seismic ground shaking because of the relatively close proximity to the Dunnigan Hills and Vaca fault zones. Should strong seismic ground shaking occur at the Project site, damage to the existing 60-kilovolt bus, the shunt capacitor banks, the station battery enclosure, tubular steel poles, and power lines could result in potential damage and/or injury to on-site staff. As stated in the geotechnical investigation report conducted for the Project, groundwater depths in the Project area are approximately 30 feet below the existing grade, and no potentially liquefiable layers of soil have been identified at the Project site.

The Project would be subject to the seismic design criteria of CPUC General Order 95, the CBC, and local building codes, which require that all improvements be constructed to withstand anticipated ground shaking from regional fault sources. CPUC General Order 95, the CBC, and local code regulations (see Section 3.7.2, *Regulatory Framework*) would require PG&E to retain a licensed geotechnical engineer to design the Project components to resist damage from seismic-induced ground shaking and ground failures (e.g., liquefaction, lateral spreading, and settlement). Furthermore, PG&E would implement APM GS-1, which would also require PG&E to conduct geotechnical investigations before construction to identify liquefiable, soft, or loose soils and to implement design and civil engineering standards in accordance with the CBC and CPUC General Order 95. All excavations would be designed and constructed in accordance with U.S. Occupational Safety and Health Administration regulations. Adherence to the applicable CPUC requirements, CBC requirements, and local agency enforcement would ensure that the Project would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. Therefore, impacts related to ground shaking during Project construction, operation and maintenance, or decommissioning would be **less than significant**.

All construction would adhere to the specifications, procedures, and site conditions contained in the final design plans, which would comply with the seismic recommendations of a California-registered,

professional geotechnical engineer in accordance with CPUC General Order 95, the CBC, and local building codes. The Project would not include habitable structures. The construction of the expanded substation and associated upgrades would be required to comply with the design, construction, and maintenance regulations established in CPUC General Order 95, the CBC, and local codes. Impacts would be **less than significant**.

Criterion aiv) Whether the project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides: *No Impact.*

As discussed in Section 3.7.1, *Environmental Setting*, no records of major historical landslides were found at the Project site. The Project site also is not located in an area that is susceptible to landslides and is relatively flat. **No impact** would occur related to the risk of loss, injury, or death involving landslides.

Criterion b) Whether the project would result in substantial soil erosion or the loss of topsoil: *Less-than-Significant Impact.*

The erosion susceptibility of the soils underlying the Project site is low to moderate. The top 2 feet of soil present at the Project site have been previously disturbed for agricultural activities as noted in the geotechnical report. During construction, the Project would include ground-disturbing activities that could increase the risk of erosion or sediment transport if not managed appropriately. Such activities could result in soil erosion during excavation, grading, trenching, and soil stockpiling. Project activities that would expose soil include excavations to install the subsurface interconnected system of conductors, and pouring concrete footings and foundations for all the aboveground structures.

Before substation upgrade activities, crews would grade, level, and gravel the expanded substation site. Imported fill would be used to match the elevation of the existing substation. Engineered fill would be spread and compacted on the substation pad surface, requiring approximately 16,060 cubic yards of cut and 26,600 cubic yards of fill. The Project would adhere to all recommendations outlined in the geotechnical investigation report, including over-excavating any loose or disturbed soils during initial site grading. All staging areas, including equipment and material staging and parking for workers, would be located within the expanded substation site. Preparation of the expanded substation site for staging and parking would involve removing any existing crops, then removing topsoil and grading and compacting the subsoil. Intense rain or wind events in such areas could result in substantial soil erosion. If not managed appropriately, these ground-disturbing activities could increase the risk of erosion and/or sediment transport.

The soil at the Project site has low to moderate susceptibility to erosion, and the top 2 feet of the Project site have been previously disturbed. However, because construction would occur in an area exceeding 1 acre, the Project would be required to comply with the Construction General Permit, described under *National Pollutant Discharge Elimination System Construction General Permit* in the state regulatory setting in Section 3.7.2.2, *State*. Compliance with the Construction General Permit would help ensure that the Project would manage stormwater to protect water quality, and permit requirements would include both erosion control measures for construction sites and post-construction requirements. The Construction General Permit requires a project proponent to prepare and implement a SWPPP that identifies BMPs to

control stormwater from construction worksites and to prevent disturbed soil from moving off-site. The BMPs may include but are not limited to the following measures:

- 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.
- Other measures identified by a State Qualified SWPPP Developer that would substantially reduce or prevent erosion from occurring during construction.

In addition, the Project would implement the APMs described in Section 2.5.5, *Applicant-Proposed Measures*, including preparing a SWPPP and conducting additional geotechnical investigations. Operation of the Project would not require any additional or substantial earthwork. Adherence to all applicable federal and state regulations, APMs, and geotechnical recommendations would ensure that the Project would have a **less-than-significant impact** on erosion at the Project site and would not contribute to a substantial loss of topsoil.

Criterion 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.*

The Project area is generally flat with no evidence of landslides, and the consolidated sediments underlying the Project site would be unlikely to destabilize during Project construction or operation and maintenance activities. Therefore, there would be no landslide or slope instability impacts associated with the Project. The Project site is located in a portion of Yolo County that has substantial areas where land subsidence has resulted from groundwater pumping. However, the Project would not require the extraction of crude oil or natural gas. As discussed in Section 2.5.2.12, *Water Supply and Use*, Project excavation may encounter shallow groundwater that could require dewatering, but the volume is not expected to be significant. The Project would therefore not exacerbate any existing subsidence.

Although the Project is not located on a known unstable geologic unit or on unstable soil, soil could become loose during the Project's construction phase. Under APM GS-1, Minimization of Construction above Liquefiable Soils or in Soft or Loose Soils, PG&E would conduct geotechnical investigations before construction to identify liquefiable, soft, or loose soils, and would implement design and civil engineering standards in accordance with the CBC and the CPUC's General Order 95. Soil instability would be addressed through the recommendations provided by the geotechnical report and the CBC's compaction and grading requirements. These recommendations incorporate standard methods for reducing soil instability and maintaining proper site drainage. They also include standards for over-excavation and the placement of fill on competent and compacted native materials. As recommended by the geotechnical investigation report, fill material should be free of particles greater than 3 inches in the largest dimension and appropriately moisture conditioned. To minimize the effect of these soils on construction, the geotechnical investigation report provided earthwork, soil removal, and compaction recommendations that would prevent a potential collapse.

Implementing the recommendations of the geotechnical investigation report and excavation safety requirements specified in CPUC General Order 95, the CBC, and Construction Safety Orders from the California Division of Occupational Safety and Health would ensure that any unstable soils or geologic units would be addressed. Therefore, although the Project could be located on a geologic unit or soil that is unstable, impacts associated with subsidence or collapse would be **less than significant**.

Criterion d) Whether the project would be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property: *Less-than-Significant Impact.*

As discussed in Section 3.7.1, *Environmental Setting,* the geotechnical site investigation found fat clay present at the Project site. Fat clay is considered expansive, and expansive soils react to changes in moisture by expanding or contracting. During construction, PG&E would implement measures recommended in the geotechnical investigation report to mitigate risks of utility construction in expansive soils. Tubular steel poles would be installed on concrete foundations that are 15–30 feet deep.

Under APM GS-1, PG&E would conduct geotechnical investigations before construction to identify liquefiable, soft, or loose soils, including expansive soils, and would implement design and civil engineering standards in accordance with the CBC and the CPUC's General Order 95. To mitigate the effect of these soils on construction, the geotechnical report provided earthwork, soil removal, and compaction recommendations that would prevent a potential collapse. The recommendations include properly over-excavating any fat clay identified on-site, or treating on-site clay soils with high-calcium quicklime. Implementing the recommendations of the required geotechnical report would ensure that expansive soils would be sufficiently addressed. Therefore, impacts would be **less than significan**t.

Criterion 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 does not include a waste disposal system; therefore, **no impact** would occur.

Criterion f) Whether the project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature: *Less-than-Significant Impact.*

The entire Project site is on Holocene alluvium (Qa). Holocene units are generally of modern taxa and are not considered paleontologically significant. The Project site is largely undeveloped, although the site has been used for agricultural production. Although deep tillage to support these activities could have occurred up to 24 inches below ground surface, tilling (also called *discing*) more generally occurs at depths between 12 and 16 inches. Because the surface up to 16 inches would have been disturbed regularly, pursuant to on-site agricultural operations, the potential that surficial Holocene alluvial deposits at the Project site would yield significant paleontological resources is low. Project-related excavation could be up to 20 feet. Negligible surface disturbance is anticipated during the Project's operation and maintenance phase.

Although Holocene units are generally not considered paleontologically significant, PG&E would implement APM GS-2, Unanticipated Discovery of Paleontological Resources, which would detail

procedures to follow should a paleontological resource be discovered during construction activities. Impacts would be **less than significant**.

3.7.5 References

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3.8 Greenhouse Gas Emissions

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
VIII. GREENHOUSE GAS EMISSIONS — Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

The information and analysis in this section are based in part on the Project's estimated greenhouse gas (GHG) emissions that were calculated on behalf of PG&E, as presented in the Proponent's Environmental Assessment and PG&E's response to California Public Utilities Commission (CPUC) Data Request 1 (PG&E 2024a, 2024b). The GHG emissions calculations were reviewed by Environmental Science Associates and were found to be adequate to include in this analysis.

3.8.1 Environmental Setting

Carbon dioxide (CO_2), methane, nitrous oxide, sulfur hexafluoride, perfluorocarbons, and hydrofluorocarbons are the principal GHGs. When concentrations of these gases exceed historical concentrations in the atmosphere, the greenhouse effect is intensified. CO_2, methane, and nitrous oxide occur naturally and are also generated through human activity. Emissions of CO_2 are largely byproducts of fossil fuel combustion; methane emissions result 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. Nitrous oxide emissions are also largely attributable to agricultural practices and soil management. Other human-generated GHGs include fluorinated gases such as hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, which have much higher heat absorption potential than CO_2 and are byproducts of certain industrial processes.

CO_2 is the reference gas for climate change, as it is the GHG emitted in the highest volume. The effect of each GHG on global warming is the product of the mass of their emissions and their global warming potential (GWP). The GWP of a GHG indicates the amount the gas is predicted to contribute to global warming relative to the amount of warming predicted to be caused by the same mass of CO_2. For example, methane and nitrous oxide are substantially more potent GHGs than CO_2, with respective GWPs of 25 times and 298 times that of CO_2, which has a GWP of 1 (CARB 2024).

In emissions inventories, GHG emissions are typically reported as metric tons of CO_2 equivalent ($MTCO_2e$). CO_2e is calculated as the product of the mass emitted of a given GHG and its specific GWP. Methane and nitrous oxide have much higher GWPs than CO_2; however, CO_2 is emitted in higher quantities, and it accounts for the majority of GHG emissions in CO_2e, both from commercial developments and from human activity in general. The types of GHG emissions that are relevant to this analysis are described below.

3.8.1.1 Carbon Dioxide

Carbon dioxide (CO_2) is a naturally occurring gas that enters the atmosphere through both natural and anthropogenic (human) sources. Key anthropogenic sources include the burning of fossil fuels (e.g., oil, natural gas, and coal), solid waste, trees, wood products, and other biomass, as well as industrially relevant chemical reactions, such as those associated with manufacturing cement. CO_2 sinks include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution and are two of the largest reservoirs of CO_2 sequestration. In other words, CO_2 is removed from the atmosphere when it is absorbed by plants and the ocean as part of the biological carbon cycle.

3.8.1.2 Methane

Methane is the main component of natural gas used for home heating and cooking and occurs naturally from the decay of organic matter. Natural sources of methane include wetlands, permafrost, oceans, and wildfires. Anthropogenic sources include fossil fuel production, biomass burning, animal husbandry (fermentation during manure management), and landfills.

3.8.1.3 Nitrous Oxide

Nitrous oxide is a colorless gas produced by microbial processes in soil and water, including those reactions that occur in nitrogen-rich fertilizers. In addition to agricultural sources, some industrial processes (nylon production, nitric acid production) emit nitrous oxide. Oxides of nitrogen (i.e., NO_X), composed of NO_2 and nitrogen oxide (i.e., NO), are emitted during combustion. These are air pollutants but are not the same as nitrous oxide. Very small quantities of nitrous oxide may be formed during fuel combustion through reactions of nitrogen and oxygen.

3.8.1.4 Sulfur Hexafluoride

Sulfur hexafluoride is a fluorinated compound consisting of sulfur and fluoride. It is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high-voltage equipment that transmits and distributes electricity. However, sulfur hexafluoride emissions are long-lived and are more effective at trapping infrared radiation than an equivalent amount of CO_2.

3.8.2 Regulatory Framework

3.8.2.1 Federal

Clean Air Act

The U.S. Supreme Court held that the U.S. Environmental Protection Agency (USEPA) must consider regulation of motor vehicle GHG emissions. In *Massachusetts v. Environmental Protection Agency et al.* (127 S. Ct. 1438 [2007]), 12 states and cities, including California, together with several environmental organizations, sued USEPA to require the regulation of GHGs as pollutants under the Clean Air Act. The Supreme Court ruled that GHGs fit within the Clean Air Act's definition of a pollutant and that USEPA had the authority to regulate GHGs.

On December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- **Endangerment Finding:** Current and projected concentrations of the six key GHGs—CO_2, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.

These findings did not, by themselves, impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for vehicles.

Regulations on the Use of Electric Transmission and Distribution Equipment

Pursuant to federal regulations (Code of Federal Regulations Title 40, Part 98, Subpart DD), operators of certain electrical facilities, such as sulfur hexafluoride–containing circuit breakers, must report sulfur hexafluoride emissions to USEPA (USEPA 2024a). Circuit breakers associated with the Project that contain sulfur hexafluoride would be subject to reporting under this regulation.

3.8.2.2 State

Statewide rules and regulations mandate quantifying GHG emissions and, if the emissions exceed established thresholds, reducing them. 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 the project would result in a substantial addition of GHGs to the atmosphere. Other state programs, regulations, plans, and goals designed to reduce GHG emissions are described below.

California Renewable Energy Programs

In 2002, California initially established its Renewables Portfolio Standard, 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 Executive Order S-14-08 (November 2008) required California utilities to reach the 33 percent renewable electricity goal by 2020, consistent with the Assembly Bill (AB) 32 Scoping Plan (see below).

In April 2011, Senate Bill (SB) 2 of the First Extraordinary Session (SB X1-2) was signed into law. SB X1-2 expressly applied the new 33 percent Renewables Portfolio Standard by December 31, 2020, to all retail sellers of electricity and established renewable energy standards for interim years before 2020. In 2018, SB 100, the California Clean Energy Act of 2017, was signed into law. This bill established a target to supply the state with 100 percent renewable and zero-carbon energy resources by 2045.

SB 1020, signed into law on September 16, 2022, revised SB 100 to require that renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to end-use customers by December 31, 2035; 95 percent of all retail sales to end users by December 31, 2040; 100 percent of electricity procured to serve all state agencies by December 31, 2035; and 100 percent of all retail sales to end users by December 31, 2045.

Assembly Bill 32

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 emissions 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; CARB is authorized to enforce compliance with the program. Under AB 32, CARB was also required to adopt a statewide GHG emissions limit equivalent to the statewide GHG emissions levels in 1990, which had to be achieved by 2020. CARB established this limit in December 2007 at 427 million $MTCO_2e$ (CARB 2008).

Climate Change Scoping Plan

In December 2008, CARB approved the Climate Change Scoping Plan, also known as the AB 32 Scoping Plan, which outlined the State of California's strategy to achieve the 2020 GHG emissions limit by reducing 174 million $MTCO_2e$ (about 191 million tons) across various sectors. The plan proposed to reduce GHG emissions, improve the environment, reduce dependence on oil, diversify energy sources, save energy, create new jobs, and enhance public health. The Scoping Plan was to be updated every 5 years to evaluate the mix of AB 32 policies and remain on track to achieve reduction goals. It included 39 recommended measures. Measure H-6 targets "High GWP Gases," designed to reduce emissions of sulfur hexafluoride within the electric utility sector and at particle accelerators. This measure requires the use of best achievable control technology for the detection and repair of leaks, and the recycling of sulfur hexafluoride. CARB released updates to the Scoping Plan in 2014, 2017, and 2022 (CARB 2014, 2017, 2022).

Executive Order B-30-15

In April 2015, Governor Edmund G. Brown Jr. issued Executive Order S-3-05, which established a California GHG reduction target of 40 percent below 1990 levels by 2030, paving the way for a reduction target of 80 percent below 1990 levels by 2050. Executive Order B-30-15 also specifically addresses the need for climate adaptation (Office of the Governor 2015). In 2016, SB 32 codified the 2030 reduction target (i.e., 40 percent below 1990 levels).

2017 Scoping Plan Update

In December 2017, CARB approved the *Climate Change Scoping Plan Update*, also known as the 2017 Scoping Plan Update, which outlined actions to achieve the 2030 GHG target of a 40 percent reduction from 1990 levels. CARB set a 2030 emission limit of 260 million $MTCO_2e$, requiring an additional reduction of 50 million $MTCO_2e$ beyond current policies. The cornerstone of the 2017 Scoping Plan Update is an expansion of the cap-and-trade program to meet the aggressive 2030 limit and 2050 goals. CARB recommends statewide annual emissions targets of 6 $MTCO_2e$ per capita by 2030 and 2 $MTCO_2e$ by 2050, allowing local jurisdictions to set evidence-based goals aligned with local growth and emissions sectors.

Assembly Bill 1279 (California Climate Crisis Act)

Signed into law in September 2022, AB 1279 requires the state to achieve two things by 2045 or sooner: (1) net zero GHG emissions; and (2) a reduction in statewide anthropogenic GHG emissions of 85 percent below 1990 levels. AB 1279 requires CARB to ensure that the 2022 Scoping Plan, described further below, identifies and recommends measures to achieve carbon neutrality, and to identify and implement policies and strategies for CO_2 removal and carbon capture, utilization, and storage technologies.

2022 Scoping Plan for Achieving Carbon Neutrality

The 2022 *Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan), adopted by CARB in December 2022, expands on prior scoping plans and responds to AB 1279 by outlining a path to reduce emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045 or earlier (CARB 2022). The actions and outcomes in the plan will achieve significant reductions by focusing on clean technologies, reduced fossil fuel use, sustainable development, carbon sequestration, and storage. It emphasizes the role of local governments in meeting GHG reduction goals through land use planning, transportation infrastructure, building ordinances, and zero-emission vehicle infrastructure (CARB 2022).

The 2022 Scoping Plan identifies an action for the construction equipment sector that commits to electrification of 25 percent of equipment energy demand by 2030 and 75 percent by 2045 (CARB 2022). Because construction of the Project would be completed before 2030, this construction equipment sector action is not directly applicable to the Project.

Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear

The purpose of this regulation (California Code of Regulations Title 17, Section 95350 et seq.) is to achieve GHG emissions reductions by reducing emissions of sulfur hexafluoride from gas-insulated switchgear. Owners of such switchgear must not exceed maximum allowable annual emissions of 1.0 percent of the total sulfur hexafluoride 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 sulfur hexafluoride emissions from all active gas-insulated switchgear equipment divided by the average annual sulfur hexafluoride nameplate capacity of all active gas-insulated switchgear equipment. Owners must regularly inventory gas-insulated switchgear equipment, measure quantities of sulfur hexafluoride, and maintain records of these for at least 3 years. Additionally, by June 1 of each year, owners must submit an annual report to CARB's Executive Officer for emissions that occurred during the previous calendar year (CARB 2021).

PG&E actively participates in USEPA's Sulfur Hexafluoride Emission Reduction Partnership for Electrical Power Systems. This program aims to reduce sulfur hexafluoride emissions by voluntary cost-effective technical and management solutions with electrical power industries (USEPA 2024b).

3.8.2.3 Local

Yolo-Solano Air Quality Management District

The Yolo-Solano Air Quality Management District (YSAQMD) regulates local air quality and emissions sources in Yolo County, where the Project is located. The YSAQMD has not yet established specific GHG significance thresholds, but it recommends lead agencies evaluate impacts to climate change for every CEQA project (YSAQMD 2007). Recognizing the cumulative nature of GHG emissions, the YSAQMD advises lead agencies to evaluate their projects' incremental direct and indirect contributions of GHG emissions to the overall region. Furthermore, the YSAQMD recommends comparing project emissions to state climate goals, such as those outlined in AB 32 and SB 32, or to thresholds set by other jurisdictions.

Yolo County Climate Action and Adaptation Plan

The Yolo County Climate Action and Adaptation Plan (CAAP) serves as a comprehensive roadmap to address climate change by achieving net-negative GHG emissions by 2030. The CAAP contains mitigation and adaptation strategies for reducing emissions and managing climate risks, such as extreme heat, drought, and wildfires, while enhancing resilience and sustainability across the county (Yolo County 2024). It integrates measures to decarbonize energy and transportation, promote climate-smart agriculture, and utilize natural and working lands for carbon sequestration. The CAAP emphasizes sustainable development, community engagement, and equitable planning for vulnerable and historically disadvantaged communities.

California Public Utilities Commission

The CPUC has exclusive jurisdiction over the siting, design, and construction of the Project; therefore, the Project is not subject to local discretionary regulations. CPUC General Order 131-D, Section XIV.B, states that "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" (CPUC 1995). Public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable, as Yolo County does not have jurisdiction over the Project. Because the CPUC has exclusive jurisdiction, the Project is not subject to local land use and zoning regulations or discretionary permits.

3.8.3 Applicant-Proposed Measures

PG&E has identified the following Applicant-proposed measures (APMs) to minimize impacts of the Project related to GHG emissions. The impact analysis assumes that the APMs would be implemented as part of the Project to reduce the GHG emissions impact as discussed below.

- **APM GHG-1: Greenhouse Gas Emissions Reduction During Construction.**
  - If suitable park-and-ride facilities are available near construction workers' residences, they shall be encouraged to carpool to the job site;
  - Maintain on-road and off-road vehicle tire pressures to manufacturer specifications. Tires will be checked and re-inflated at regular intervals;
  - Recycle demolition debris for reuse to the extent feasible;
  - Use line power instead of diesel generators at all construction sites where line power is available; and
  - Maintain construction equipment in properly working condition per PG&E standards.
- **APM GHG-2: Minimize GHG Emissions.**
  - Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time will depend on the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warm-up times following start-up that limit their availability for use following start-up. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles may require more 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. Construction supervisors will include briefings to crews on vehicle use as part of pre-construction conferences; these briefings will include discussion of a "common sense" approach to vehicle use.

  - 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 50 hp [horsepower] or larger and manufactured in the year 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.

- **APM GHG-3**: Minimize Sulfur Hexafluoride Emissions.
  - Incorporate Plainfield Substation's new sulfur hexafluoride circuit breakers into PG&E's system-wide sulfur hexafluoride emission reduction program. Since 1998, PG&E has implemented a programmatic plan to inventory, track, and recycle sulfur hexafluoride inputs, and inventory and monitor system-wide sulfur hexafluoride leakage rates to facilitate timely replacement of leaking breakers. PG&E has also improved its leak detection procedures and increased awareness of sulfur hexafluoride issues within the company. X-ray technology is now used to inspect internal circuit breaker components to eliminate dismantling of breakers, reducing sulfur hexafluoride handling and accidental releases. As an active member of the [US]EPA's sulfur hexafluoride Emission Reduction Partnership for Electrical Power Systems, PG&E has remained focused on reducing sulfur hexafluoride emissions from its transmission and distribution operations.
  - Require that the new sulfur hexafluoride breakers at Plainfield Substation have a manufacturer's guaranteed maximum leakage rate of 0.5 percent per year or less for sulfur hexafluoride.
  - Maintain substation breakers in accordance with PG&E's maintenance standards.
  - Comply with CARB's Early Action Measures as these policies become effective.

3.8.4 Environmental Impacts

3.8.4.1 Methodology and Assumptions

As described above, the YSAQMD has not adopted its own significance thresholds for GHG emissions; however, CEQA allows lead agencies to rely on thresholds adopted or recommended by other agencies or recommended by experts (CEQA Guidelines Section 15064.7). The YSAQMD recommends considering project emissions relative to state climate goals, such as those outlined in AB 32 and SB 32, or relative to thresholds set by other jurisdictions (YSAQMD 2024). Many air districts use a mass emissions threshold, also known as a "bright-line" significance threshold, which is typically expressed in terms of metric tons of emissions per year. For example, the Bay Area Air Quality Management District (BAAQMD) has established a bright-line screening threshold of 10,000 $MTCO_2e$ per year for stationary-source projects. This threshold was derived from GHG emissions data from combustion sources for all permit applications

submitted to the BAAQMD in 2005, 2006, and 2007. The threshold is considered an interim threshold as AB 32 Scoping Plan measures are developed and implemented at the state level (BAAQMD 2022).

As noted above, this GHG significance threshold is intended for long-term operational GHG emissions associated with stationary sources. Therefore, because the BAAQMD is an adjacent district to the YSAQMD, the BAAQMD guidance is used to determine the significance of GHG emissions. For construction-related GHG emissions, the South Coast Air Quality Management District recommends that total emissions from construction be amortized over 30 years and added to operational emissions, and thus compared to the BAAQMD operational significance threshold of 10,000 metric tons CO_2e per year (SCAQMD 2008; BAAQMD 2022). The emissions estimated for the Project were generated using construction and operation equipment and vehicle use assumptions provided by the Applicant and the methods established in the California Emissions Estimator Model Version 2022.1 and CARB's Emission Factor model. See the Proponent's Environmental Assessment (PG&E 2024a) for the detailed emission estimate calculations.

3.8.4.2 Direct and Indirect Impacts

Criterion a) Whether the project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment: *Less-than-Significant Impact.*

GHG emissions would be generated by the use of off-road heavy-duty construction equipment and on-road vehicle trips generated by workers, vendors, and haul trucks. **Table 3.8-1**, ***Estimated Construction-Related Greenhouse Gas Emissions***, summarizes the Project's total and 30-year amortized GHG construction emissions. No reduction has been applied to the emissions associated with APM GHG-1 or APM GHG-2 because they are not generally quantifiable. Mobile emission estimates are based primarily on miles traveled (not time idling) and contractor construction equipment fleets are assumed to be properly maintained.

TABLE 3.8-1
ESTIMATED CONSTRUCTION-RELATED GREENHOUSE GAS EMISSIONS

Construction Year	Total GHG Emissions ($MTCO_2e$)
2025	1,285
2026	684
Total Construction Project Emissions	1,969
Total Amortized 30-Year Emissions	**65.6**

NOTES: GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent
SOURCE: PG&E 2024

As shown in Table 3.8-1, the total amortized GHG emissions over an assumed 30-year Project lifetime are estimated to be approximately 65.6 $MTCO_2e$ per year. The Project would not require a change in PG&E's existing operation and maintenance activities, with the exception of actions taken to address the potential leakage of sulfur hexafluoride from the proposed two new sulfur hexafluoride circuit breakers. PG&E would employ standard best management practices, such as minimizing vehicle trips and keeping vehicles and equipment well maintained during operations.

Table 3.8-2, ***Annual Greenhouse Gas Emissions***, presents the combination of amortized GHG construction emissions and estimated GHG emissions resulting from sulfur hexafluoride leakage. These emissions assume a sulfur hexafluoride leak rate of 0.5 percent (8.5 $MTCO_2e$) through implementation of APM GHG-3. Additional offsets to potential sulfur hexafluoride emissions include the removal of the existing sulfur hexafluoride–containing circuit switcher as part of the Project's upgrades.

TABLE 3.8-2
ANNUAL GREENHOUSE GAS EMISSIONS

Emission Source	Project GHG Emissions ($MTCO_2e$ per year)
Construction (amortized)	65.6
Operation and Maintenance (sulfur hexafluoride leakage)	8.5
Total Project Emissions	**74.1**
Significance Threshold	**10,000**
Significant Impact?	**No**

NOTES: GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent

The combined annual GHG emissions estimated for the Project are 74.1 $MTCO_2e$ per year, which is well below the threshold of significance of 10,000 $MTCO_2e$ per year. Therefore, the Project would not generate, either directly or indirectly, GHG emissions that would have a significant impact on the environment, and the impact would be **less than significant**.

Criterion b) Whether the project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases: *No Impact.*

Construction of the Project would temporarily increase GHG emissions compared to baseline conditions; however, the emissions would not exceed regional or quantitative thresholds and would not conflict with applicable plans, policies, and regulations for reducing GHG emissions. Further, the intent, purpose, and function of the Project aligns with the goals of the latest 2022 Scoping Plan and Yolo County CAAP, which focus on achieving carbon neutrality and reducing GHG emissions within the county. Construction of the Project would incorporate APMs consistent with the requirements and intentions of the CAAP, as well as applicable state plans, policies, and regulations identified in Section 3.8.3.

As discussed under Criterion a), operation and maintenance of the Project would generate GHG emissions, primarily from leaking sulfur hexafluoride gas insulated circuit breakers. Regarding the management of sulfur hexafluoride, PG&E would implement sulfur hexafluoride gas management guidelines as described in USEPA's Voluntary Sulfur Hexafluoride Emission Reduction Partnership program and CARB's sulfur hexafluoride regulations. Furthermore, the Project's electrical upgrades and improvements would serve to support current and long-term forecasts of electrical demand in the region. Although the Project would not be linked directly to a renewable energy project, it would contribute to the necessary infrastructure needed to achieve large-scale reductions in GHG emissions as new sources of renewable resources generation become available to the electrical grid.

For these reasons described above, construction and operation of the Project would not conflict with any applicable plan, policies, or regulations, and **no impact** would occur.

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3.9 Hazards and Hazardous Materials

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
IX. 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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐
h) Would the project create a significant hazard to air traffic from the installation of new power lines and structures?	☐	☐	☐	☒
i) Would the project create a significant hazard to the public or environment through the transport of heavy materials using helicopters?	☐	☐	☐	☒
j) Would the project expose people to a significant risk of injury or death involving unexploded ordnance?	☐	☐	☐	☒
k) Would the project expose workers or the public to excessive shock hazards?	☐	☐	☒	☐

3.9.1 Environmental Setting

3.9.1.1 Definition of Hazardous Materials

A *hazardous material* is defined 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 if released into the workplace or the environment (California Health and Safety Code Section 25501[n]). The term “hazardous materials” refers to both hazardous substances and hazardous wastes. Under federal and state laws, any material, including wastes, may be considered hazardous if it is specifically listed by statute as such or if it is toxic (causes adverse human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), or reactive (causes explosions or generates toxic gases).

In some cases, past industrial or commercial activities on a site have resulted in spills or leaks of hazardous materials or wastes to the subsurface, resulting in soil or groundwater contamination. Depending on the type and concentration of contamination, hazardous materials can threaten human health and the environment if present in the soil, groundwater, or the air. The four primary exposure pathways through which an individual can be exposed to a hazardous material or waste are inhalation, ingestion, bodily contact, and injection. Exposure can result from an accidental release of hazardous materials during transport, storage, or handling. Disturbance of contaminated subsurface soil during construction also can cause exposure to workers, the public, or the environment through excavation, stockpiling, handling, or transport of such soils.

3.9.1.2 Project Site

As discussed in Section 2.2, *Project Location*, the California Public Utilities Commission (CPUC) has received a Permit to Construct application from PG&E to expand and upgrade the existing Plainfield Substation. The existing substation is on a 0.9-acre parcel, Assessor's Parcel Number 041-005-099, in unincorporated Yolo County. The parcel is adjacent to the south side of County Road (CR) 27, approximately 1.5 miles west of State Route 113, midway between the cities of Woodland and Davis (see Figure 2-1). The Applicant would construct the proposed expanded Plainfield Substation on approximately 5.2 acres of the adjacent privately owned, 320.8-acre parcel (Assessor's Parcel Number 041-050-003). The adjacent parcels to the south, west, and east of the existing Plainfield Substation are currently used for agriculture, as is the land on the north side of CR 27 (see Figure 2-3). No natural gas or other hazardous liquid pipelines are known in the Project area (DOT 2024).

3.9.1.3 Soil and Groundwater Contamination

In California, regulatory databases listing hazardous materials sites provided by numerous federal, state, and local agencies are consolidated in the "Cortese List" pursuant to Government Code Section 65962.5, which has been in effect since 1992. However, subsequent changes to the availability of web-based information have made the consolidation of this list no longer necessary and various responsible agencies maintain the following lists and databases:

- List of hazardous waste and substances sites from the California Department of Toxic Substances Control (DTSC) EnviroStor database.
- List of leaking underground storage tank sites by county and fiscal year from the State Water Resources Control Board (State Water Board) GeoTracker database.
- List of solid waste disposal sites identified by the State Water Board with waste constituents exceeding hazardous waste levels outside the waste management unit.
- List of "active" cease and desist orders and cleanup and abatement orders from the State Water Board.
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, as identified by DTSC and listed in its EnviroStor database.

These five databases identify sites with suspected and confirmed releases of hazardous materials to the subsurface soil and/or groundwater. The State Water Board's GeoTracker database includes leaking underground storage tanks, permitted underground storage tanks, U.S. Department of Defense sites, and Cleanup Program sites. The DTSC EnviroStor database includes federal and state response sites; voluntary, school, and military cleanups and corrective actions; and permitted sites. The reporting and statuses of these

sites change as hazardous materials sites are identified, monitored, and cleaned up. Typically, a listed site is considered no longer to be of concern once it has been demonstrated that existing site uses combined with the levels of identified contamination present no substantial risk to human health or the environment and the case is closed by the overseeing agency.

According to a review of the GeoTracker and EnviroStor databases, the Project site is not included as an active leaking underground storage tanks site or a Cleanup Program site, nor are there any open cases within 1 mile of the Project site (State Water Board 2024; DTSC 2024). A Phase I Environmental Site Assessment was not performed for the Project site. Because the surrounding land is used for agriculture, the potential exists for pesticides and herbicides to be present in the soil at the Project site.

3.9.1.4 Schools

The nearest school to the Project site is Plainfield Elementary School (20450 County Road 97, Woodland), approximately 2 miles northwest of the Project site.

3.9.1.5 Airports

The nearest airstrip to the Project site is the Field Airstrip (41155 County Road 27, Woodland), approximately 2.5 miles east of the Project site, and the Yolo County Airport (25170 Aviation Avenue, Davis), approximately 4 miles southwest of the Project site. The Project site is not located in an airport land use compatibility area or zone.

3.9.1.6 Wildfire Hazard

Wildfire is defined as an unplanned, unwanted wildland fire that can result from human-made or natural causes (California Government Code Section 51177). Wildland fires affect grass, forest, and brushlands, and any structures on these lands, creating the potential for injury, loss of life, and property damage. Fuel sources, topography, and climate are the primary factors influencing the degree of risk.

The Project site is not located in a high Fire Hazard Severity Zone in a State Responsibility Area (CAL FIRE 2024). The Project location is outside of any mapped fire hazard zones on CPUC's Fire-Threat map. The closest mapped fire hazard zone (Tier 2) is approximately 12 miles west of the substation site, where the topography is no longer flat and the land is not cultivated for agricultural production (CPUC 2024). See Section 3.20, *Wildfire*, for further details on the fire risk present at the Project site.

3.9.2 Regulatory Framework

3.9.2.1 Federal

The federal agencies with primary responsibility for hazards and hazardous materials management are the U.S. Environmental Protection Agency, the U.S. Occupational Safety and Health Administration, and the U.S. Department of Transportation. **Table 3.9-1**, ***Federal Laws and Regulations Related to Hazardous Materials Management***, summarizes federal laws, regulations, and responsible agencies.

TABLE 3.9-1
FEDERAL LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT

Classification	Federal Law or Responsible Federal Agency	Description
Hazardous Waste Handling and Management	Resource Conservation and Recovery Act of 1976	Under the RCRA, USEPA regulates the generation, transportation, treatment, storage, and disposal of hazardous waste from "cradle to grave."
	Hazardous and Solid Waste Act	This law amended the RCRA in 1984, affirming and extending the "cradle-to-grave" system of regulating hazardous wastes. The amendments prohibit the use of certain techniques for disposal of some hazardous wastes.
	Toxic Substances Control Act	Title 40, Chapter 1, Subchapter R of the Code of Federal Regulations (Toxic Substances Control Act), Part 761 (Polychlorinated Biphenyls [PCBs] Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions) covers the identification and sampling requirements for PCBs for disposal purposes.
	Community Right-to-Know Act of 1986 (also known as Title III of the Superfund Amendments and Reauthorization Act)	This law 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 Materials Transportation	U.S. Department of Transportation	DOT has regulatory responsibility for the safe transportation of hazardous materials. DOT regulations govern all means of transportation except packages shipped by mail.
	U.S. Postal Service	USPS regulations govern the transportation of hazardous materials shipped by mail.
Occupational Safety	Occupational Safety and Health Act of 1970	OSHA sets standards for safe workplaces and work practices, including the reporting of accidents and occupational injuries.
Structural and Building Components (Hazardous Building Materials [asbestos-containing materials, lead-based paint, and PCBs])	Toxic Substances Control Act	This law regulates the use and management of hazardous building materials and sets forth detailed safeguards to be followed during the disposal of such items.
	U.S. Environmental Protection Agency	USEPA monitors and regulates hazardous materials used in structural and building components and their effects on human health.

NOTES: DOT = U.S. Department of Transportation; OSHA = U.S. Occupational Safety and Health Administration; PCB = polychlorinated biphenyl; RCRA = Resource Conservation and Recovery Act; USEPA = U.S. Environmental Protection Agency; USPS = U.S. Postal Service

SOURCE: Data compiled by Environmental Science Associates in 2024.

3.9.2.2 State

Several state agencies have primary responsibility for hazardous materials management in the region: DTSC and the Central Valley Regional Water Board (both part of the California Environmental Protection Agency), the California Division of Occupational Safety and Health, California Department of Public Health, California Highway Patrol, and the California Department of Transportation. **Table 3.9-2**, ***State Laws and Regulations Related to Hazardous Materials Management***, summarizes state laws, regulations, and responsible agencies.

California Public Utilities Commission General Orders and Related Codes

General Order 95—Overhead Electric Line Construction

General Order 95 includes rules and other requirements for overhead line design, construction, and maintenance, the proper application of which would ensure adequate service and secure safety to persons engaged in the construction, maintenance, operation, or use of overhead lines and to the public in general.

TABLE 3.9-2
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; CUPA (Health and Safety Code Section 25404 et seq.)	CalEPA adopted regulations in January 1996 that implemented the Unified Program at the local level. The agency responsible for implementation of the Unified Program is called the CUPA. The CUPA for Yolo County is the County's HazMat Compliance Program.
	California Fire Code, California Code of Regulations Title 24, Chapter 9, and California Building Code, Part 2	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 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, also known as the Business Plan Act, requires that any business that stores hazardous materials on-site prepare a Hazardous Materials Business Plan and submit it to the local CUPA, which in this case is the County's HazMat Compliance Program.
	California Hazardous Waste Control Act; California Health and Safety Code Section 25100 et seq.; DTSC	Under the California Hazardous Waste Control Act, 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 (California Health and Safety Code Section 25300 et seq.), also known as the State Superfund Law, which provides for the investigation and remediation of hazardous substances pursuant to state law.
Hazardous Materials Transportation	California Code of Regulations Titles 13, 22, and 26	These regulations governing the transportation of hazardous waste that originates in and passes through the state includes requirements for shipping, containers, and labeling.
	CHP and Caltrans; California Vehicle Code Sections 31303–31309	These two state agencies have primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies.
Occupational Safety	Cal/OSHA regulations (California Code of Regulations Title 8)	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. They require employee safety training, safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and preparation of emergency action and fire prevention plans.
Construction Storm Water General Permit (Construction General Permit; Order 2022-0057-DWQ, NPDES No. CAS000002)	Regional water boards	A discharger whose project disturbs 1 acre or more of soil, or disturbs less than 1 acre but is part of a larger common plan of development that in total disturbs 1 acre or more, must obtain coverage under the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit; Order 2022-00547-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 SWPPP that includes specific BMPs designed to prevent sediment and pollutants from contacting stormwater from moving off-site into receiving waters. The BMPs fall into several categories—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.

TABLE 3.9-2
STATE LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT

Classification	Law or Responsible State Agency	Description
Underground Infrastructure	California Code of Regulations Sections 4216–4216.9	Sections 4216–4216.9 (Protection of Underground Infrastructure) require that an excavator contact a regional notification center (e.g., Underground Services Alert or Dig Alert) at least 2 days before excavation of any subsurface installations. Any utility provider seeking to begin a project that could damage underground infrastructure can call Underground Service Alert, the regional notification center. 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 locations of their facilities within the work area before the start of project activities in the area.

NOTES: BMP = best management practice; Cal/OSHA = California Division of Occupational Safety and Health; CalEPA = California Environmental Protection Agency; Caltrans = California Department of Transportation; CHP = California Highway Patrol; Construction General Permit = General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities; County = Yolo County; CUPA = Certified Unified Program Agency; DTSC = California Department of Toxic Substances Control; NPDES = National Pollutant Discharge Elimination System; OSHA = U.S. Occupational Safety and Health Administration; regional water board = regional water quality control board; SWPPP = storm water pollution prevention plan; Unified Program = Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

SOURCE: Data compiled by Environmental Science Associates in 2023.

General Order 166—Standards for Operation, Reliability, and Safety During Emergencies and Disasters

The purpose of the standards contained in CPUC General Order 166 is to ensure that jurisdictional electric utilities are prepared for emergencies and disasters to minimize damage and inconvenience to the public that may result from electric system failures, major outages, or hazards posed by damage to electric distribution facilities. The standards require each publicly traded electric utility to prepare an emergency response plan and update the plan annually, conduct annual emergency training and exercises using the utilities emergency response plan, and coordinate emergency plans with state and local public safety agencies.

Fire Safety Rulemaking Background

In October 2007, devastating wildfires driven by strong Santa Ana winds burned hundreds of square miles in Southern California. Several of the worst wildfires were reportedly ignited by overhead utility power lines and aerial communication facilities near power lines. In response to these wildfires, the CPUC initiated Rulemaking (R.) 08-11-005 to consider and adopt regulations to protect the public from potential fire hazards associated with overhead power line facilities and nearby aerial communication facilities.

Beginning in 2009, the CPUC issued several decisions in R.08-11-005 that together adopted dozens of new fire-safety regulations. Most of the adopted fire-safety regulations consisted of new or revised rules in General Order 95. Several of the adopted fire-safety regulations apply only to areas referred to as “high fire-threat areas,” where there is an elevated risk for power line fires to ignite and spread rapidly. These high fire-threat areas are designated by several maps that were adopted on an interim basis. Each interim map covers a different part of the state and uses its own methodology for identifying high fire-threat areas, presenting consistency and potential enforcement issues. To address these issues, the CPUC also commenced the development of a single statewide fire-threat map to designate areas where (1) there is an elevated risk for destructive power line fires and (2) stricter fire-safety regulations should apply.

In May 2015, the CPUC closed R.08-11-005 and initiated R.15-05-006 to complete the outstanding tasks in R.08-11-005. The general scope of R.15-05-006 was to address the following matters carried over from the scope of R.08-11-005:

1. Develop and adopt a statewide fire-threat map that delineates the boundaries of a new High Fire Threat District (HFTD) where the previously adopted regulations would apply.
2. Determine the need for additional fire-safety regulations in the HFTD.
3. Revise General Order 95 to include a definition and maps of the HFTD and any new fire-safety regulations.

The scope and schedule for R.15-05-006 were divided into two parallel tracks. One track focused on the development and adoption of a statewide fire-threat map. The second track focused on the identification, evaluation, and adoption of fire-safety regulations in the HFTD.

On December 21, 2017, the CPUC issued Decision 17-12-024, adopting regulations to enhance fire safety in the HFTD, effectively completing the second track of R.15-05-006 described above. On January 19, 2018, the CPUC adopted, via the Safety and Enforcement Division's disposition of a Tier 1 Advice Letter, the final CPUC Fire-Threat Map. The HFTD Map, which includes the adopted CPUC Fire-Threat Map and the Tier 1 High Hazard Zones Map on the U.S. Forest Service–California Department of Forestry and Fire Protection joint map of tree mortality High Hazard Zones, indicates areas where stricter fire-safety regulations apply.

California Department of Pesticide Regulation

The California Department of Pesticide Regulation is responsible for regulating the use of pesticides in California. The term *pesticides* includes pesticides, herbicides, insecticides, nematicides, fungicides, and rodenticides. The California Department of Pesticide Regulation evaluates and registers pesticides, monitors their sale and use, and enforces regulations to protect human health and the environment, as required by California Code of Regulations Title 3, Division 6, Pesticides and Pest Control Operations.

Additional State Regulations

The California Code of Regulations contains the following additional requirements that would apply to the Project:

- High Voltage Electrical Safety Orders (California Code of Regulations Title 8, Section 2700 et seq.), which establish essential requirements and minimum standards for installation, operation, and maintenance of electrical equipment to provide practical safety and freedom from danger.
- Fire Prevention Standards for Electric Utilities (California Code of Regulations Title 14, Sections 1250–1258), which provide specific exemptions from standards for electric pole and tower firebreaks and electric conductor clearance and specify when and where the standards apply. These regulations establish minimum clearance requirements for flammable vegetation and materials surrounding structures.
- Standards for Universal Waste Management (California Code of Regulations Title 22, Section 66273), which regulate the management of universal wastes. California considers batteries, electronic devices, mercury-containing equipment, lamps, cathode ray tubes and tube glass, and aerosol cans to be universal wastes. To encourage recycling of these wastes, they are not fully regulated as hazardous waste. A person or business generating universal waste must follow the

Management Requirements for Universal Waste Handlers (California Code of Regulations Title 22, Sections 66273.30–66273.39), which include storage, spill protection, and disposal rules designed to minimize the risk of harm to public health and the environment.

Emergency Response

The California Governor's Office of Emergency Services developed and administers the State of California Emergency Plan (Cal OES 2017) to coordinate the responses of federal, state, local, and private emergency service providers to natural or human-caused emergencies. Responding to hazardous materials incidents is one part of this plan. The California Governor's Office of Emergency Services is currently developing the California State Emergency Plan (Cal OES 2024).

3.9.2.3 Local

Because the CPUC has exclusive jurisdiction over project siting, design, and construction, the Project is not subject to local discretionary regulations. However, PG&E has considered local plans and policies as part of the environmental review process.

Yolo County General Plan

The Yolo County General Plan's Health and Safety Element includes goals and policies intended to manage the risks of both natural and human-made hazards (Yolo County 2009). Relevant policies from this planning document include the following:

Goal HS-3: Wildland Fires. Protect the public and reduce damage to property from wildfire hazard.

***Policy HS-3.1*:** Manage the development review process to protect people, structures, and personal property from unreasonable risk from wildland fires.

***Policy HS-3.2*:** Encourage well-organized and efficient coordination between fire agencies and the County.

***Policy HS-3.3*:** Clearly communicate the risks, requirements, and options available to those who own land and live in wildfire hazard areas.

Goal HS-4: Hazardous Materials. Protect the community and the environment from hazardous materials and waste.

***Policy HS-4*:** Minimize exposure to the harmful effects of hazardous materials and waste.

***Policy HS-4.2*:** Inspect businesses regularly for compliance with their Hazardous Materials Inventory and Hazardous Materials Business Emergency Response Plan.

***Policy HS-4.3*:** Encourage the reduction of solid and hazardous wastes generated in the county.

Yolo County Emergency Operations Plan

In June 2024, the Yolo County Board of Supervisors adopted the Yolo County Emergency Operations Plan. The Yolo County Emergency Operations Plan provides an overview of the jurisdiction's approach to emergency operations. It identifies emergency response policies, describes the response and recovery organization, and assigns specific roles and responsibilities to County departments, agencies, and community partners (Yolo County 2024). See Section 3.15, *Public Services*, for details about emergency response services in the Project area.

Yolo County Multi-Hazard Mitigation Plan

The Yolo County Multi-Hazard Mitigation Plan was updated and approved by the Federal Emergency Management Agency in 2023. The plan identifies hazards and provides a risk assessment for all the potential natural hazards that could affect Yolo County. The plan also includes a review of the county's current capabilities and recommends additional action items to reduce vulnerability to potential disasters (Yolo County 2023).

3.9.3 Applicant-Proposed Measures

The following Applicant-proposed measures (APMs) pertaining to hazardous materials would be implemented by PG&E as part of the Project.

- **APM HAZ-1: Emergency Spill Response Equipment and Training.** Emergency spill response and cleanup kits will be available on site, as well as at the Davis PG&E Service Yard Headquarters, and readily available for the cleanup of an accidental spill. Construction crews will be trained in safe handling and cleanup responsibilities prior to the initiation of construction.
- **APM HAZ-2: Shock Hazard.** All authorized personnel working on site will be trained according to PG&E standards during either construction or maintenance and operation. To minimize potential exposure of the public to electric shock hazards, an 8-foot-tall chain link fence topped with 1 foot of barbed wire will extend around the perimeter of the expanded substation, thus restricting site access. Warning signs will be posted to alert people of potential electrical hazards. All electric power lines will be designed in accordance with CPUC General Order 95 Guidelines for safe ground clearances established to protect the public from electric shock.
- **APM HAZ-3: Update Spill Prevention, Control, and Countermeasure (SPCC) Plan and Hazardous Materials Business Plan (HMBP).** PG&E will update the existing SPCC Plan and HMBP for Plainfield Substation to include all new equipment and on-site hazardous materials associated with the substation expansion, so that the station would meet SPCC Guidelines (40 Code of Federal Regulations 112). The retention basin will be sufficiently sized to accommodate stormwater runoff from the substation yard. The substation will also be equipped with lead-acid batteries to provide backup power for monitoring, alarm, protective relaying, instrumentation and control, and emergency lighting during power outages. Secondary containment will be constructed around and under the battery racks, and the SPCC will address containment from a battery leak.
- **APM HAZ-4: Soil Testing and Disposal.** In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are removed during site grading activities or excavation activities, the excavated soil will be tested, and if contaminated above hazardous waste levels, 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.
- **APM HYDRO-1: Stormwater Pollution Prevention Plan.** Because the Project involves more than an acre of soil disturbance, PG&E will prepare and implement a SWPPP [storm water pollution prevention plan] in accordance with the NPDES [National Pollutant Discharge Elimination System] Construction General Permit (see Section 3.7, *Geology and Soils*). The Best Management Practices (BMPs) described in the SWPPP would stabilize disturbed areas and prevent erosion and the release of sediment and other pollutants to waterways. A monitoring program will also be established to confirm that the prescribed BMPs are followed during Project construction. A qualified SWPPP developer (QSD) will oversee the implementation of the SWPPP and associated BMPs. The

following measures are generally drawn from the permit and will be included in the SWPPP prepared for the construction of the Project:

- All BMPs will be on site and ready for installation before the start of construction activities;
- BMPs will be developed to prevent the acceleration of natural erosion and sedimentation rates, such as the use of silt fence and straw wattles, and to limit track out of mud and sediment into roadways during construction; and
- Prior to conducting clearing activities during the wet season and before the onset of winter rains or any anticipated storm events, erosion-control measures will be installed. Temporary measures such as silt fences or wattles, which are intended to minimize sediment transport from temporarily disturbed areas, will remain in place until disturbed areas have stabilized.

- **APM TRANS-1: Traffic Management.** PG&E will obtain necessary transportation and encroachment permits from Caltrans [California Department of Transportation] and the local jurisdiction, as required, including those related to the transport of oversized loads and certain materials, and will comply with permit requirements designed to prevent excessive congestion or traffic hazards during construction. Construction activities will follow best management practices and local jurisdictional encroachment permit requirements, which may include traffic controls such as signs, cones, and flaggers. At least 24 hours prior to implementing a lane or road closure of CR 27, PG&E will coordinate with applicable emergency service providers in the Project vicinity. PG&E will provide information regarding the anticipated date, time, and duration of the lane or road closure, and a contact number.

3.9.4 Environmental Impacts

3.9.4.1 Methodology and Assumptions

The following impact analysis considers the potential impacts related to hazards and hazardous materials associated with the Project's construction and operation and maintenance (O&M) phases. This analysis assumes Project compliance with applicable federal, state, and local laws and regulations and the implementation of the other identified APMs. Further, state and local agencies are expected to continue to enforce applicable requirements to the extent that they do so now. Environmental Data Resources, Inc., conducted a search of available environmental records and additional environmental risks present on-site in April 2023. The study identified zero mapped or unmapped sites of environmental concern and is therefore not discussed further in this document (EDR 2023). The analysis is also based on a review of relevant literature and occurrences databases, such as the State Water Board's GeoTracker and DTSC EnviroStor websites.

Impacts related to hazards and hazardous materials would be considered significant if the Project would result in exposure of people and the environment to hazardous materials, be located on a listed hazardous materials site, or have the potential to conflict with an established airport land use compatibility plan or emergency response/evacuation plan.

As discussed in Section 2.5.7, *Summary of Electric and Magnetic Fields*, electric and magnetic fields (EMFs) are associated with electromagnetic radiation, which is energy in the form of photons. Radiation energy spreads as it travels and has many natural and human-made sources. The electromagnetic spectrum, the scientific name given to radiation energy, includes light, radio waves, and x-rays, among other energy forms. Electric and magnetic fields are common throughout nature and are produced by all

living organisms. Concern about EMF exposure, however, generally pertains to human-made sources of electromagnetism and the degree to which they may have adverse biological effects or interfere with other electromagnetic systems. Commonly known human-made sources of EMFs are electrical systems, such as electronics and telecommunications, and electric motors and other electrically powered devices. Radiation from these sources is invisible, non-ionizing, and of low frequency. Generally, in most environments, the levels of such radiation added to natural background sources are low. The Project would include electrical overhead power subtransmission lines that would emit EMFs. However, this CEQA document does not consider EMFs in the context of the CEQA analysis of potential environmental impacts, for two reasons: (1) There is no agreement among scientists that EMFs create a potential health risk and (2) there are no defined or adopted CEQA standards for defining health risk from EMFs. For additional background information about EMF, see Section 2.5.7*, Summary of Electric and Magnetic Fields.*

3.9.4.2 Direct and Indirect Effects

Criterion a) Whether the project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials: *Less-than-Significant Impact.*

Project construction is estimated to take approximately 30 months to complete. As discussed in Section 2.5.2.13, *Hazardous Materials and Management,* construction of the expanded Plainfield Substation would require the limited use of hazardous materials, such as fuels, lubricants, cleaning solvents, and other chemicals, which are all commonly used in construction. Additionally, the substation would include transformers containing mineral oil, which is considered a hazardous material in California if released as a spray or mist. The routine use or an accidental spill of hazardous materials could result in inadvertent releases, which could adversely affect construction workers, the public, and the environment.

Construction activities would be required to comply with numerous hazardous materials regulations described in Section 3.9.2, *Regulatory Framework*. These regulations are designed to ensure that hazardous materials would be transported, used, stored, and disposed of in a safe manner to protect worker safety and to reduce the potential for a release of construction-related fuels or other hazardous materials into the environment, including stormwater and downstream receiving water bodies. All hazardous materials would be stored, handled, and used in accordance with applicable regulations. Safety data sheets would be made available at the construction site for all crew workers. Based on the anticipated volume of hazardous liquid materials, such as fuel, that would be stored and dispensed at the proposed staging area, an updated Spill Prevention, Control, and Countermeasure (SPCC) Plan would be required in accordance with the applicable provisions of Code of Federal Regulations Title 40, Parts 112. The California Fire Code also requires measures for the safe storage and handling of hazardous materials.

The Project would involve the routine transport, use, or disposal of hazardous materials, as defined by the Hazardous Materials Transport Uniform Safety Act. Most of the waste generated during construction would be non-hazardous. Most construction waste would be disposed of at a non-hazardous landfill or at a recycling facility whenever feasible. Project construction would generate limited amounts of hazardous wastes, such as used lubricants, cleaning solvents, and other chemicals. Additional hazardous wastes that could be encountered or released during construction include contaminated soils, incidental spill waste, and concrete washout. There would be a low potential for encountering contaminated soil or groundwater during trenching and other ground-disturbing activities. Should contaminated materials be discovered,

soil would be separated for on-site testing, management, and disposal, as detailed in **APM HAZ-4: Soil Testing and Disposal**. Should hazardous materials be discovered during trenching, work would cease immediately. Sanitary waste would be managed by using portable toilets and hauled off-site for disposal.

Project O&M activities may involve the transportation, use, or temporary storage of a variety of hazardous materials, such as diesel fuel, insulation oil for the transformers, grease and lubricants, paints and thinners, solvents, and adhesives. Maintenance activities at the Project site would include general inspection and cleaning of various mechanisms. These inspections would include assessment of equipment conditions, testing and calibration, and monitoring of oil and installation liquid levels. Infrared scanning would be used to identify potential electrical equipment issues, including faulty connections, poor contact, phase imbalances, and overload conditions.

During O&M activities, the Project would generate a small amount of waste, such as broken or rusted metal, defective or malfunctioning equipment, electrical materials, empty containers, other miscellaneous solid waste, and typical refuse from the O&M staff. All waste would be handled with a standard third-party waste management service.

Upon completion of construction, the existing SPCC Plan and Hazardous Materials Business Plan (HMBP) for the Plainfield Substation would be updated to incorporate any changes in protocols for the use, transport, storage, management, and disposal of hazardous materials relevant to the operational phase of the upgraded substation. The plans would be updated in accordance with relevant federal and state guidelines and regulations (e.g., California Division of Occupational Safety and Health regulations), as detailed in **APM HAZ-3: Update Spill Prevention**, **Control, and Countermeasure (SPCC) Plan and Hazardous Materials Business Plan (HMBP)**. These measures could also include containment and transport in vessels approved by the U.S. Department of Transportation, the use of secondary containment, and training of material handlers to ensure workers' safety and the reduction of cross-contamination. The Applicant will not decommission the Plainfield Substation in the foreseeable future because of the expected continued need for electricity.

Although the Project would involve the use of hazardous materials for all Project components and phases, the Project would comply with all applicable federal and state requirements and related APMs. These measures would ensure that the Project would not create a significant hazard to the public through the routine transport, use, or disposal of these hazardous materials. Therefore, this impact would be **less than significant**.

Criterion b) Whether the project would 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.*

As discussed above, the Project would involve the use, transportation, and disposal of hazardous materials and wastes. The Project would comply with all applicable federal and state requirements and related best management practices.

Accidental spills resulting from construction activities are typically small, localized, and cleaned up in a timely manner. Construction contractors are contractually responsible for their hazardous materials and are required by their contracts to store and dispose of these materials properly in compliance with federal

and state laws, including through implementation of an HMBP. As discussed above, the HMBP would include best management practices for construction activities and spill control and spill response measures. In the unlikely event of a spill, the HMBP would include appropriate measures to ensure that workers cease work activities to contain any release and enact the protocols for cleanup, including the notification of appropriate agencies and the use of materials stored on-site (e.g., absorbent pads) to minimize the spread or exposure. The Project would implement **APM HAZ-1: Emergency Spill Response Equipment and Training** before construction to properly train construction staff in safe handling and clean-up responsibilities and provide the site with proper clean-up materials in the event of a spill or accident.

Additionally, as discussed previously, the Project would be subject to the protections included in a SWPPP and an SPCC Plan, which would outline best management practices to contain a potential release and to prevent any such release from reaching an adjacent waterway or stormwater collection system (e.g., erosion control, sediment control, and waste management). The active construction and staging areas would be fenced at all times, restricting public access to the site. Implementation of the requirements of the HMBP, the site-specific SWPPP, and the updated SPCC Plan would help to ensure that accidental spills would not adversely affect construction workers, the public, or the environment. With compliance with applicable federal and state requirements and implementation of APMs, the Project would not create a significant hazard to the public through the accidental release of hazardous materials.

Additional hazardous wastes that could be encountered or released during construction include contaminated soils, incidental spill waste, and concrete washout. There would be a low potential for encountering contaminated soil or groundwater during trenching and other ground-disturbing activities. Should contaminated materials be discovered, soil would be separated for on-site testing, management, and disposal, as detailed in **APM HAZ-4: Soil Testing and Disposal**. Should hazardous materials be discovered during trenching, work would cease immediately.

O&M activities associated with the electric facility would require relatively minor use of hazardous materials. Any hazardous materials that would be stored on-site would be contained in designated areas in accordance with an HMBP. Adherence to the HMBP, as required by the California Hazardous Materials Release Response Plans and Inventory law (Health and Safety Code Section 25500 et seq.), would help to ensure that all handling, storage, and disposal of hazardous materials would be conducted in accordance with proven practices to minimize exposure to workers or the public. The site would be fenced to prevent public access to hazardous materials. Therefore, the preparation and implementation of a HMBP and a SPCC Plan that would describe proper handling, storage, transport, and disposal techniques and methods to be used to avoid spills and minimize impacts in the event of a spill, would further reduce impacts related to hazards.

Given adherence to all applicable federal and state regulations and the implementation of APMs, the Project would have a **less-than-significant impact** on the public or the environment through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Criterion c) Whether the project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school: *No Impact.*

There are no existing or proposed schools within 0.25 mile of the Project site; therefore, **no impact** on schools related to potential hazardous substance emissions would occur.

Criterion d) Whether the project would 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 create a significant hazard to the public or the environment: *No Impact.*

The Project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, the Project would not create a significant hazard to the public or the environment. **No impact** would occur.

Criterion e) Whether the project would be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, whether the project would result in a safety hazard or excessive noise for people residing or working in the project area: *No Impact.*

The Project site is not located within an airport land use plan or within 2 miles of a public airport or public use airport. The Project would therefore not result in a safety hazard or excessive noise for people residing or working on the Project site, and **no impact** would occur.

Criterion f) Whether the project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan: *Less-than-Significant Impact.*

The Project site is located adjacent to the south side of CR 27, approximately 1.5 miles west of State Route 113, midway between the cities of Woodland and Davis. The Yolo County General Plan's Health and Safety Element identified the primary egress points in the county that would be used during emergency evacuations. The nearest primary egress point identified would be CR 98, the main point of egress from Woodland into Solano County. However, during an emergency evacuation, all routes may be used. Additional traffic introduced or road closures occurring during Project construction may have the potential to physically interfere with an adopted emergency response plan or emergency evacuation plan.

As discussed in Section 2.5.2.10, *Public Safety and Traffic Control*, **APM TRANS-1** would be implemented during construction. APM TRANS-1 stipulates that PG&E shall obtain necessary transportation and encroachment permits from the California Department of Transportation and the local jurisdictions as required. Jurisdictional and permit requirements may require signage and/or flaggers to maintain public safety and reduce potential disruptions to traffic flow during construction. Should construction activities require lane or road closure of CR 27, the Applicant would notify local emergency service providers at least 24 hours before any full or partial road closure. The Applicant would provide emergency service providers serving the Project area with the anticipated date, time, and duration of the lane or road closure and appropriate emergency contact information. Traffic control would also be implemented to help control traffic flow and ensure worker safety during this construction period. With

adherence to all federal and state regulations and implementation of **APM TRANS-1**, the Project would have a **less-than-significant** impact on an adopted emergency response plan or emergency evacuation plan.

Criterion g) Whether the project would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires: *Less-than-Significant Impact.*

The Project site is not located in a high Fire Hazard Severity Zone in a State Responsibility Area. The site is also outside of any mapped fire hazard zones on the CPUC's Fire-Threat map; the closest mapped fire hazard zone (Tier 2) is approximately 12 miles west of the substation (see Figure 3.20-1, *Fire Hazard Classifications*, in Section 3.20, *Wildfire*). Nonetheless, to reduce potential fire hazards during construction, the Applicant would implement fire prevention practices as described in **APM FIRE-1**. Prevention measures outlined in APM FIRE-1 include training for construction and maintenance personnel in fire-safe actions, initial-attack firefighting, fire reporting, and the provision of fire suppression equipment on all construction vehicles. PG&E would coordinate with applicable local fire departments before construction activities to determine the appropriate amounts of fire equipment to be carried on vehicles and, should a fire occur, to coordinate fire suppression activities.

Because the Project site is not located in a high fire hazard severity zone as identified by both the California Department of Forestry and Fire Protection and CPUC, and because the Project would coordinate with local fire departments during construction to manage fire risk on-site, the Project would have a **less-than-significant** impact related to the exposure of people or structures to a significant risk involving wildland fires.

Criterion h) Whether the project would create a significant hazard to air traffic from the installation of new power lines and structures: *No Impact.*

The Project site is located approximately 2.5 miles from the nearest active airstrip and 4 miles from the Yolo County Airport. The site is not located in a zone designated by an airport land use compatibility plan as hazardous. Therefore, there are no height restrictions in the Project area as recommended or regulated by an airport land use compatibility plan. **No impact** would occur.

Criterion i) Whether the project would create a significant hazard to the public or environment through the transport of heavy materials using helicopters: *No Impact.*

The Project would not involve the use of helicopters. Therefore, **no impact** on the public or environment would occur through the transport of heavy materials using helicopters.

Criterion j) Whether the project would expose people to a significant risk of injury or death involving unexploded ordnance: *No Impact.*

The Project is located on rural agricultural land and not on an active or prior military base; therefore, **no impact** would occur.

Criterion k) Whether the project would expose workers or the public to excessive shock hazards: *Less-than-Significant Impact.*

Electrical fields caused by electrical transmission equipment can induce voltages and currents on conductive objects, such as metal roofs or buildings, fences, construction equipment, and vehicles.

Overhead subtransmission lines are designed to limit the short-circuit current, from conductive items beneath the line, to a safe level (less than 5 milliampere). When a person or animal comes in contact with a conductive object, a perceptible current or small electric shock may occur. These small electric shocks cause no physiological harm; however, they may present a nuisance.

The Project's design would follow the applicable federal and state regulations and standards central to reducing shock hazards. The design would be compliant with the California Division of Occupational Safety and Health's regulations on electrical safety. These regulations are contained in California Code of Regulations Title 8. Most of the electrical health and safety regulations can be found in Chapter 4, Subchapter 5 in the Electrical Safety Orders, Sections 2700–2989, which are relevant to high-voltage work. Furthermore, the Project would implement **APM HAZ-2: Shock Hazard**. APM HAZ-2 would require that all authorized personnel working on-site be trained according to PG&E standards during either construction or O&M. All electric power lines would be designed in accordance with CPUC General Order 95 Guidelines for safe ground clearances established to protect the public from electric shock.

Because the Project would follow these safety regulations and other applicable federal and state regulations, the impact related to exposure of workers or the public to excessive shock hazards due to the construction, operation, or maintenance of the Project would be **less than significant**.

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3.10 Hydrology and Water Quality

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
X. HYDROLOGY AND WATER QUALITY — Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
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:				
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

3.10.1 Environmental Setting

This section describes existing conditions related to hydrologic resources, water quality, and flood control. The Project site is located in unincorporated Yolo County, which is part of the Sacramento River Hydrologic Region, and more specifically, lies within the Yolo Subbasin of the Sacramento Valley Groundwater Basin. The Sacramento Hydrologic Region extends from the Oregon border downstream to the Sacramento–San Joaquin Delta and has a moderate climate, with precipitation averaging 18.5 inches annually in Woodland (WRCC 2024). Yolo County has six groundwater subbasins: Capay Valley, Buckeye Creek, Dunnigan Hills, North Yolo, Central Yolo, and South Yolo. The Project site is located in the Central Yolo groundwater subbasin.

3.10.1.1 Water Bodies

The existing Plainfield Substation is surrounded by agricultural fields and rural residences. The Project site is bordered on its west and north sides by agricultural and roadside ditches that convey stormwater. One agricultural ditch is parallel to the western side of the Project site, while two agricultural ditches parallel the northern and southern sides of County Road (CR) 27. These ditches convey water from an agricultural irrigation pump located along CR 98. The ditches are modified by the agricultural landowners as needed and may be deepened or filled in depending on current needs.

Major watersheds and surface water features in Yolo County include Cache Creek, Putah Creek, the Sacramento River, and the Yolo Bypass. Willow Slough, located approximately 0.5 mile south of the Project site, is a minor watercourse that drains much of the area between Cache and Putah creeks (Yolo County 2009).

3.10.1.2 Water Quality

Willow Slough is listed as a Category 5 water body on the Final California 2020 Integrated Report (303[d] List/305[b] Report). Category 5 water bodies include water segments in which standards are not met and a total maximum daily load is required but not yet completed for at least one of the listed pollutants. Willow Slough was listed for boron in 2010 and for indicator bacteria in 2014. Scheduled total maximum daily load completion dates for Willow Slough are 2021 and 2027, respectively. However, the water body remains on the 3030(d) list based on the conclusion by Regional Water Quality Control Board staff that the applicable water quality standards remain exceeded for boron (CVRWQCB 2022).

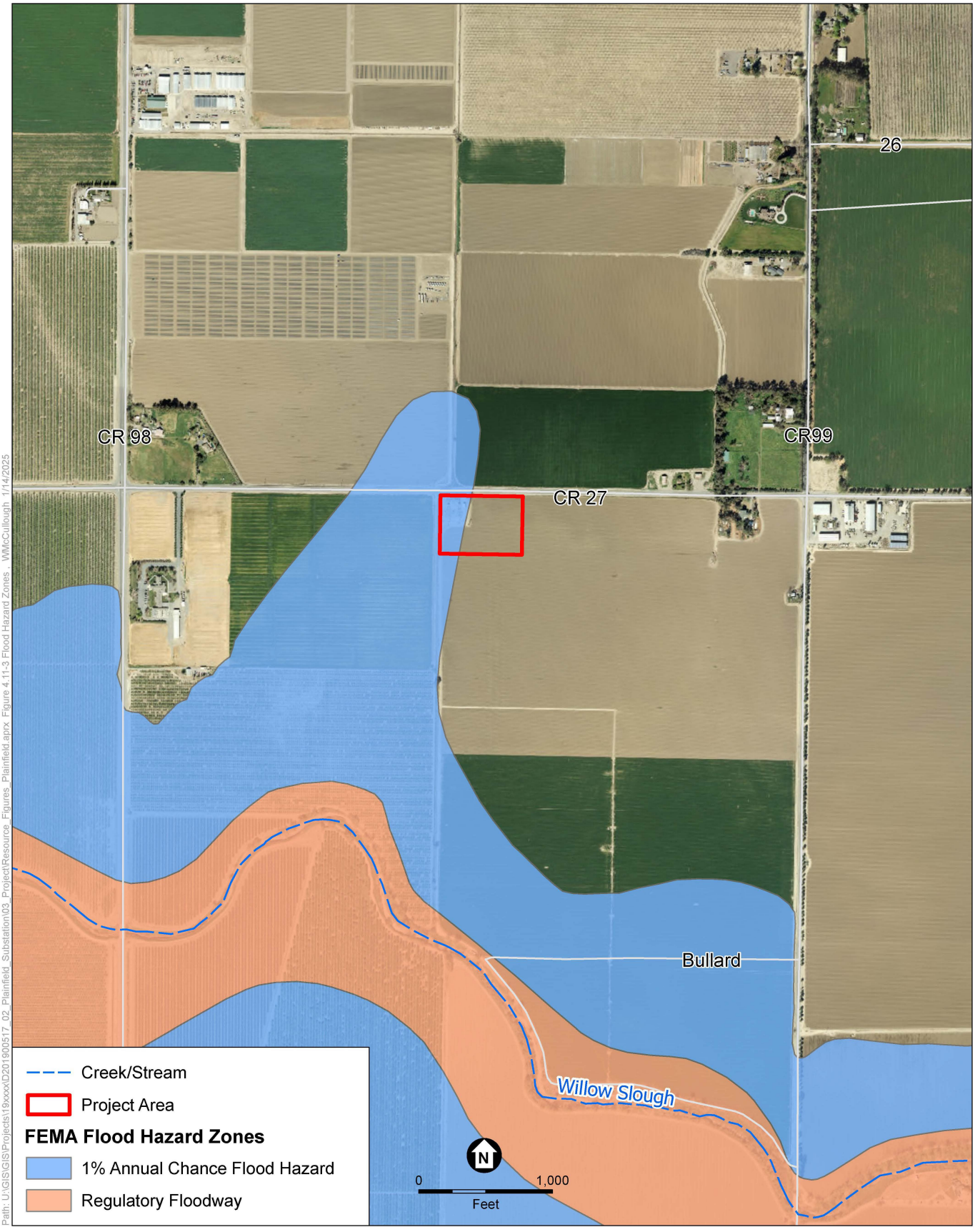
3.10.1.3 Floodplains

The Federal Emergency Management Agency (FEMA) is responsible for the management of floodplain areas and manages and distributes Flood Insurance Rate Maps used in the National Flood Insurance Program. Flood Insurance Rate Maps outline zones of high and moderate to low flood risk, with high-risk zones classified as Special Flood Hazard Areas. *Special Flood Hazard Areas* are lands that would be inundated by a flood event having a 1 percent chance of equaled or exceeded in any given year. These 1-percent-annual-chance floods are also referred to as *100-year floods*. The Project site is mapped within Special Flood Hazard Area AE, as shown in **Figure 3.10-1**, ***Flood Hazard Zones and Surface Hydrology***. Areas designated as Special Flood Hazard Area AE are generally low-elevation areas that have a high risk of flooding (FEMA 2020).

3.10.1.4 Groundwater

The average depth to groundwater in the Sacramento River Hydrologic Region and in the Yolo Subbasin is approximately 25 feet below ground surface; however, groundwater levels in the Yolo Subbasin fluctuate seasonally as a result of recharge by precipitation (YSGA 2022). Groundwater supplies about one-third of the water used in the Sacramento River Hydrologic Region, averaging 34 percent of total water use; agriculture accounts for an average of 87 percent of the groundwater used (DWR 2020).

Yolo County has an extensive system of shallow and deep aquifers that provide the region with domestic and agricultural water supplies, with the majority of the county's domestic water supplies originating from groundwater. The eastern portion of the Yolo subbasin, which spans from Dunnigan to Davis, provides the largest supply of extracted residential water. The primary sources of groundwater recharge are applied irrigation and direct rainfall. Natural aquifer recharge typically occurs along the streambeds of creeks and canals, and controlled recharge occurs through reservoir releases of stored water during low-flow periods (Yolo County 2009).



Path: U:\GIS\GIS\Projects\19xxxx\D20190517_02_Plainfield_Substation\03_Project\Resource_Figures_Plainfield.aprx Figure 4.11-3 Flood Hazard Zones , WMcCullough 1/14/2025

Source: ESA, 2024; FEMA, 2024

Plainfield Substation Upgrade Project

Figure 3.10-1
Flood Hazard Zones and Surface Hydrology

ESA

The Project site is under the jurisdiction of the Yolo Subbasin Groundwater Agency and is located within the Central Yolo groundwater management area. The closest groundwater monitoring well to the Project site, located at the corner of CR 27 and CR 99 (approximately 0.5 mile east of the Project site), measured depths to groundwater ranging from 45 to 110 feet in 2023. Historically, the shallowest recorded depth of the well was 28 feet and the deepest was 176 feet.

3.10.2 Regulatory Framework

3.10.2.1 Federal

Clean Water Act

The Clean Water Act (CWA) is the primary federal statute regulating water quality in the United States and establishes the basis for multiple state and local water quality laws throughout the country. The primary objective of the CWA is to reduce or eliminate water pollution in the nation's rivers, streams, lakes, and coastal waters. Under the CWA, several major integrated regulatory programs, standards, and plans have been established to support the restoration and maintenance of water resources. At the federal level, the CWA is administered by the U.S. Environmental Protection Agency and U.S. Army Corps of Engineers. At the state and regional levels, the CWA is administered by the State Water Resources Control Board (State Water Board) and the regional water quality control boards (RWQCBs).

Section 404 of the CWA establishes standards and regulations for discharges of pollutants from dredged and fill material into waters of the United States and quality standards for surface water. Under Section 404, a permit program regulates the discharge of dredged or fill material into waters of the United States. Specifically, this permit program regulates fill for development, water resource projects such as dams or levees, infrastructure development, and mining projects. Section 404 requires that a permit be obtained before dredged or fill materials may be discharged into waters of the United States. ~~Because the Project would replace culverts along CR 27, which flow into a direct tributary to Willow Slough, it is anticipated that a CWA Section 404 permit would be required.~~

National Flood Insurance Program

FEMA manages the National Flood Insurance Program, which provides flood insurance to property owners, renters, and businesses, thus helping communities to recover more quickly from flood events when floodwaters recede. Regulations regarding development in a floodplain are set forth by the Code of Federal Regulations Title 44, Part 60. These regulations allow FEMA to implement the National Flood Insurance Program, which requires the adoption and enforcement of floodplain management regulations to help mitigate flooding effects. The majority of the existing Project site is located within the 100-year floodplain.

3.10.2.2 State

Clean Water Act Section 303(d)—Water Quality Standards and Implementation Plans

Under Section 303(d) of the CWA, the U.S. Environmental Protection Agency assists states in developing lists of impaired waters that are too polluted or degraded to meet water quality standards. In some cases, *total maximum daily loads* are required, to establish the maximum amount of a pollutant allowed in a water body and serve as the foundation for restoring its water quality. Willow Slough, located approximately 0.5 mile south of the Project site, is a 303(d) listed water body for boron and indicator

bacteria. The expected total maximum daily load completion dates are 2021 and 2027, respectively (CRWQCB 2020).

Clean Water Act Section 402—National Pollutant Discharge Elimination System Program

The State Water Board regulates stormwater discharges from construction sites because of the potential for the discharge of pollutants into water bodies. Dischargers whose projects disturb 1 or more acres of soil are required to obtain permits under the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit). The NPDES permit program controls discharge of any pollutant from a *point source*, defined as any discernible, confined, and discrete conveyance such as pipes or human-made ditches, into navigable waters to reduce risks to water quality and public health. Because more than 1 acre of soil would be disturbed during Project construction, the Applicant would be required to obtain coverage under the NPDES Construction General Permit. This general permit requires an applicant to prepare and implement a storm water pollution prevention plan (SWPPP) in accordance with the State of California's Construction General Permit for stormwater discharges associated with construction. Construction activity subject to the permit includes clearing, grading, and ground disturbance.

Porter-Cologne Water Quality Control Act

Enacted in 1969, the Porter-Cologne Water Quality Control Act provides protection of the quality of waters of the state of California. The act establishes provisions for a statewide program for the control of water quality and is administered on a local level with statewide oversight. The act establishes the authority of the State Water Board and the nine RWQCBs. The State Water Board administers water rights, sets state policy for pollution control, and implements various water quality functions throughout the state. The RWQCBs manage planning, permitting, and enforcement activities. The Project site is located under the jurisdiction of the Central Valley RWQCB. The Central Valley RWQCB prepares and periodically updates the Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin (Basin Plan) (discussed below in Section 3.10.2.3, *Regional and Local*). Pursuant to the CWA's NPDES program, the Porter-Cologne Water Quality Control Act delegates the authority to the RWQCBs to issue NPDES permits (California Water Code Section 13377).

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act sets forth a statewide framework to help protect groundwater resources in California. Composed of a three-bill legislative package (Assembly Bill 1739 and Senate Bills 1168 and 319), the overall goal of the Sustainable Groundwater Management Act is to halt groundwater overdraft and achieve locally defined sustainability goals in the state's 94 high- and medium-priority groundwater basins over a 20-year time frame. The act requires local agencies to form *groundwater sustainability agencies*, which develop and implement groundwater sustainability programs (GSPs) to provide roadmaps for how groundwater basins will reach long-term sustainability. Groundwater sustainability agencies must address six sustainability indicators defined by the Sustainable Groundwater Management Act: lowering groundwater levels, surface water depletion, degraded quality, reduction of storage, land subsidence, and seawater intrusion. The California Department of Water Resources manages the regulatory oversight of GSPs, aids with developing best management practices (BMPs), and provides agencies with planning, technical, and financial assistance.

The Project site is located within the Yolo Subbasin, in which implementation and compliance of the basin's GSP is managed by the Yolo Subbasin Groundwater Agency. The Yolo Subbasin Groundwater Sustainability Plan is the effective GSP for the Project site and is discussed in additional detail below.

3.10.2.3 Regional and Local

Water Quality Control Plan for the Sacramento River Basin and San Joaquin River Basin

A *water quality control plan*, often called a "basin plan," is the primary planning document that outlines standards and guidelines that aim to protect, maintain, and improve the water quality in a region. Basin plans are often developed by state or regional agencies to ensure compliance with both federal and local water quality laws. Sections 13146 and 13247 of the California Water Code require that, in carrying out activities that affect water quality, state agencies, departments, boards, and offices must comply with all policies for water quality control and with applicable water quality control plans approved or adopted by the State Water Board.

The Project site is located in the Central Valley Region, which encompasses the Sacramento River Basin and San Joaquin River Basin for the purpose of water quality management. Relevant policies set forth by the Central Valley RWQCB in its Basin Plan include the following:

> **4.2.2.1.3: *Controllable Factors Policy***
>
> Controllable water quality factors are not allowed to cause further degradation of water quality in instances where other factors have already resulted in water quality objectives being exceeded. Controllable water quality factors are those actions, conditions, or circumstances resulting from human activities that may influence the quality of the waters of the State that are subject to the authority of the State Water Board or Regional Water Board, and that may be reasonably controlled.
>
> **4.2.2.1.4: *The Water Quality Limited Segment Policy***
>
> Additional treatment beyond minimum federal requirements will be imposed on dischargers to Water Quality Limited Segments. Dischargers will be assigned or allocated a maximum allowable load of critical pollutants so that water quality objectives can be met in the segment.

Yolo Basin Groundwater Sustainability Plan

In accordance with the Sustainable Groundwater Management Act and implemented by the Yolo Subbasin Groundwater Agency, the Yolo Basin Groundwater Sustainability Plan sets objectives to maintain or improve groundwater conditions in the Yolo Subbasin. The GSP sets targets to ensure that groundwater remains sustainably maintained, focusing on groundwater levels and storage, water quality, land subsidence, and interconnected surface water, and monitors management actions intended to contribute to sustainable groundwater goals (YSGA 2022). The GSP establishes the following sustainability goals for the Yolo Subbasin:

- Achieve sustainable groundwater management in the Yolo Subbasin by maintaining or enhancing groundwater quantity and quality through the implementation of projects and management actions to support beneficial uses and users.
- Maintain surface water flows and quality to support conjunctive use programs in the Subbasin that promote increased groundwater levels and improved water quality.

- Operate within the established sustainable management criteria and maintain sustainable groundwater use through continued implementation of a monitoring and reporting program.
- Maintain sustainable operations to maintain sustainability over the implementation and planning horizon.

3.10.3 Applicant-Proposed Measures

Applicant-Proposed Measure (APM) HYDRO-1 is specific to water resources and would be implemented by the Applicant as part of the Project. Additional APMs related to water quality include APMs BIO-2, BIO-6, BIO-15, GHG-3, HAZ-1, HAZ-3, and HAZ-4, as described in Table 2-10.

- **APM HYDRO-1: Stormwater Pollution Prevention Plan.** Because the project involves more than an acre of soil disturbance, PG&E will prepare and implement a SWPPP to help stabilize disturbed areas and reduce erosion and sedimentation. A monitoring program will also be established to confirm that the prescribed BMPs are followed during project construction. A qualified SWPPP practitioner will oversee the implementation of the SWPPP and associated BMPs. The following measures are generally drawn from the permit and will be included in the SWPPP prepared for the construction of the project:
  - All BMPs will be on site and ready for installation before the start of construction activities;
  - BMPs will be developed to prevent the acceleration of natural erosion and sedimentation rates, such as the use of silt fence and wattles, and to limit track out of mud and sediment into roadways during construction; and
  - Prior to conducting clearing activities during the wet season and before the onset of winter rains or any anticipated storm events, erosion-control measures will be installed. Temporary measures such as silt fences or wattles, which are intended to minimize sediment transport from temporarily disturbed areas, will remain in place until disturbed areas have stabilized.

3.10.4 Environmental Impacts

3.10.4.1 Methodology and Assumptions

This analysis evaluates potential impacts on hydrologic resources and water quality pertinent to the construction and operation and maintenance of the Project. Data for this section were generated through analysis of federal, state, and local codes, planning and policy documents, and maps of the Project site. The analysis assumes that the APMs referenced in Section 3.10.3, *Applicant-Proposed Measures*, and listed in Table 2-10 would be implemented by the Applicant to limit potential impacts on water resources and that the various regulations described in Section 3.10.2, *Regulatory Framework*, would continue to be enforced to the extent that they are now.

3.10.4.2 Direct and Indirect Effects

Criterion a) Whether the project would violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality: *Less-than-Significant Impact.*

During construction, soil-disturbing activities would include grading and excavation. Silt, sediment, and other contaminants could be released and mobilized through stormwater, resulting in potential impacts on

surface water or groundwater quality. The replacement of two culverts and installation of a third in the roadside ditch on the south side of CR 27 is proposed to occur during dry conditions (when flow is not present), which would limit impacts on water quality. Because the Project site is relatively flat, there would be minimal risk of soil erosion associated with construction activities at the site. Consistent with the requirements of the Construction General Permit and APM HYDRO-1, a SWPPP would be implemented by the Applicant to prevent stormwater quality degradation from construction-related soil disturbance. As part of the SWPPP, BMPs such as the use of silt fences and wattles would be implemented to limit the track-out of mud into roadways and minimize sediment transport.

Engineered fill would be spread and compacted on the substation pad surface as part of grading and leveling activities, after which excavation would begin for a stormwater retention pond and the installation of 10 tubular steel poles. The tubular steel poles would extend 15–20 feet underground, depending on soil characteristics. As discussed in Section 3.10.1, *Environmental Setting*, the depth to groundwater of the nearest monitoring well has been measured at levels as shallow as 28 feet below ground surface in the past. Should shallow groundwater be encountered during construction, the excavated areas would be dewatered using sump pumps and reused for construction-related dust control or discharged into the roadside ditches along CR 27. Dewatering discharges from mechanical pumping from excavations would be required to comply with receiving water limitations in Section IV.D of the 2022 Construction General Permit. The permit would not allow discharge of contaminants in quantities that threaten to cause pollution.

Operation and maintenance of the completed Project may involve limited use, transport, or temporary storage of hazardous materials such as solvents, diesel fuel, grease, and lubricants. Upon the completion of construction, the existing Spill Prevention, Control, and Countermeasure (SPCC) Plan and Hazardous Materials Business Plan would be updated to incorporate changes in use, transport, storage, management, and disposal of hazardous materials and would be updated in accordance with the federal and state guidelines detailed in APM HAZ-3.

The Project would involve the use of hazardous materials during Project construction and operation, but the Project would comply with applicable federal and state requirements detailed in Section 3.9, *Hazards and Hazardous Materials*, and related APMs would be implemented. Compliance with regulatory requirements and the associated Applicant commitments (as referenced in Section 3.10.3, *Applicant-Proposed Measures*) would ensure that the Project would not violate water quality standards or substantially degrade surface or groundwater quality. Therefore, this impact would be **less than significant**.

Criterion b) Whether the project would 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.*

A consideration of groundwater impacts under this criterion includes the use of groundwater supplies (potentially depleting the groundwater basin) and changes to the land surface that could impede groundwater recharge, such as the addition of impervious surfaces. As discussed in Section 2.5.2.12, *Water Supply and Use*, construction water requirements would be provided through either reclaimed or recycled water if available, or through municipal water (from surface water sources) should reclaimed or recycled water not be available. The estimated 7.2 acre-feet of construction water (outlined in Table 2-7) would not deplete groundwater supplies.

The Project would include alterations of the land and would change conditions for groundwater recharge across the site. However, except for paved access roads, most of the surface areas proposed for Project use would remain pervious or capable of recharging the groundwater basin. Before construction, crews would grade, level, and gravel the expanded substation site. An existing access road off of CR 27 would be widened to provide access to the Project site for construction vehicles and equipment, and a dirt road that runs between the west side of the substation and the adjacent agricultural ditch would be graveled to enhance accessibility and support construction activities. A new access road would be constructed within the expanded substation parcel but outside of the perimeter fence adjacent to the eastern and southern borders of the substation. Upon the completion of construction, stormwater runoff within a small portion of the expanded substation site, bounded by the existing internal access road, would drain into an existing SPCC skimmer/weir on the northern fence line. The new stormwater retention pond would be along the eastern fence line within the expanded substation site, and, apart from the portion discussed above, stormwater runoff at the expanded substation site would be directed to the retention pond through a system of swales within the substation. The unlined 3-foot-deep stormwater retention pond (approximately 60 by 320 feet) would be excavated and constructed after grading activities and would allow for infiltration and groundwater recharge. Therefore, this impact would be **less than significant**.

Criterion c) Whether the project would 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: i) result in substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv) impede or redirect flood flows : *Less-than-Significant Impact.*

During construction, activities such as grading and ground disturbance would occur, and these activities would result in more than 1 acre of ground disturbance. Additionally, activities such as clearing and grading of work areas and access roads and tubular steel pole and foundation construction could contribute to stormwater runoff. As required by the State Water Board's Construction General Permit, the Applicant would develop a SWPPP to control erosion and off-site transport of pollutants and limit potential runoff. The SWPPP would implement Project-specific BMPs identified in APM HYDRO-1, such as the use of silt fences and wattles, during construction to ensure effective erosion and sediment control. The Construction General Permit contains independently enforceable regulatory requirements including those in effect after construction. Therefore, construction-related impacts would be **less than significant**.

The Project would be designed such that once constructed, stormwater runoff would drain into the stormwater retention pond. The retention pond would have an overflow structure consisting of high-density polyethylene pipe that would drain into the roadside ditch located on the south side of CR 27. The high-density polyethylene pipe would have a backflow preventer to ensure that drainage flows from the retention pond to the roadside ditch and water from the roadside ditch would not be able to drain back into the retention pond. Drainage from the stormwater retention pond into the roadside ditch would occur only when a storm event is greater than the County's stormwater design requirements for the retention pond. The retained portion of the existing substation, along with approximately 0.18 acre of the expanded substation that would be bounded by the same internal access road, would have drainage directed to a

SPCC containment system along the northern fence line before draining off-site. Thus, runoff would be minimized, and impacts would be **less than significant**.

Criterion d) Whether the project would in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation: *Less-than-Significant Impact.*

The Project site is not located in a tsunami or seiche zone, as the area is not adjacent to any bodies of water prone to these hazards (oceans, lakes, reservoirs, bays). The closest bodies of water are Lake Berryessa, approximately 50 miles west of the Project site, and Folsom Lake, approximately 40 miles to the east. Therefore, these hazards are not discussed further in this section.

However, the majority of the existing Project site is located in the 100-year flood zone, meaning that the area is at high risk of inundation during a flooding event. During construction, hazardous materials and pollutants, such as fuels, lubricants, and cleaning solvents, would be stored and dispensed on-site at predetermined staging areas and could release pollutants into floodwaters should a flooding event occur during construction. However, this storage and use would be only temporary, limited to the estimated 30-month duration of construction activities. In accordance with Code of Federal Regulations Title 40, Part 112, an updated SPCC Plan would be required based on the anticipated volume of hazardous liquid materials that would be stored on-site. The implementation of an SPCC Plan would reduce impacts related to release of pollutants by preventing oil spills, containing potential spills within secondary systems, and ensuring effective containment procedures should oil spills occur. Regular site assessments and improvements as part of the SPCC Plan would also enhance the facility's ability to manage spills and identify potential vulnerabilities. Thus, impacts associated with release of pollutants in the event of inundation during construction would be **less than significant**.

During operation and maintenance of the Project, the substation would include transformers that contain mineral oil, which is considered a hazardous material in California. Consistent with APM HAZ-3 (described in Table 2-10), measures would be taken to ensure secondary containment in the event of battery leaks. Additionally, upon the completion of construction, an SPCC Plan and a Hazardous Materials Business Plan would be updated in accordance with federal and state guidelines and regulations, such as those issued by the California Division of Occupational Health and Safety. Such guidelines and regulations would include changes in protocols for the use, transport, storage, management, and disposal of hazardous materials relevant to substation operations. APM HAZ-4 includes soil testing and disposal measures to be taken in the event that site soils are suspected of being contaminated. These measures would help to limit the potential release of contaminants if the site were to become inundated during flood conditions. Because measures are proposed as part of the Project to limit the release of contaminants, the resulting impacts would be **less than significant**.

Criterion e) Whether the project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan: *Less-than-Significant Impact.*

Earthwork required during Project construction, such as grading and compaction, could result in runoff. Additionally, construction activities pose the potential for spills of hazardous materials such as diesel fuel and solvents and for erosion resulting from soil disturbance. However, as described under Criterion a), these activities would be subject to the Construction General Permit’s requirements, including implementation of a SWPPP and other regulatory controls, which would limit water quality degradation. Project construction

activities would comply with BMPs from the SWPPP, as described in APM HYDRO-1, which would assist in reducing potential impacts on water quality. Dust control and other construction activities would require the use of water, which would be sourced from recycled water or municipal supplies from the Sacramento River. The use of this water would not interfere with groundwater levels or supply. Project construction would not conflict with or obstruct the Basin Plan or the Yolo Subbasin Groundwater Sustainability Plan, and associated impacts would be **less than significant**.

Operation and maintenance of the Project would not require the use of water; however, additions of asphalt roads on the expanded substation site could contribute to stormwater runoff. Fill that is imported to increase the elevation of the substation expansion would consist of crushed stone or gravel, while unpaved areas would be compacted with crushed rock. As discussed in Criterion b), the existing access roads off of CR 27 that would be widened during construction to provide equipment and vehicle access would be returned to original (preconstruction) conditions. Additionally, internal access roads would be graded to provide proper drainage to the SPCC skimmer or the unlined stormwater retention pond, which would support maintaining water quality and groundwater recharge. Therefore, operational impacts would also be **less than significant**.

3.10.5 References

CVWRQCB (Central Valley Regional Water Quality Control Board). 2022. *2020–2022 California Integrated Report*. Accessed: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html#:~:text=The%202020-2022%20Integrated%20Report%20was%20approved%20by%20U.S.%20EPA%20on. Accessed October 3, 2024.

CRWQCB (California Regional Quality Control Boards). 2020. *Final California 2020 Integrated Report (303[d] List/305[b] Report)*. Available: https://www.waterboards.ca.gov/water_issues/programs/tmdl/2020_2022state_ir_reports_revised_final/apx-b/table_of_contents.shtml#r1_revised. Accessed October 3, 2024.

DWR (California Department of Water Resources). 2020. *California's Groundwater Update 2020–Full Report*. Available: https://data.cnra.ca.gov/dataset/calgw_update2020/resource/d2b45d3c-52c0-45ba-b92a-fb3c90c1d4be. Accessed October 11, 2024.

FEMA (Federal Emergency Management Agency). 2020. "Flood Zones." URL: https://www.fema.gov/about/glossary/flood-zones. Accessed October 3, 2024.

WRCC (Western Regional Climate Center). 2024. Woodland 1 WNW, California (049781): Period of Record Monthly Climate Summary. Available: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca9781. Accessed October 22, 2024.

Yolo County. 2009. *County of Yolo 2030 Countywide General Plan*. Available: https://www.yolocounty.gov/government/general-government-departments/county-administrator/general-plan/adopted-general-plan. Accessed October 2, 2024.

YSGA (Yolo Subbasin Groundwater Agency). 2022. *Yolo Subbasin Groundwater Agency 2022 Groundwater Sustainability Plan, Yolo County, CA*. Adopted on January 24, 2022. Available: https://www.yologroundwater.org/files/acff83c75/YoloGSP_Adopted.pdf. Accessed October 11, 2024.

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3.11 Land Use and Planning

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XI. LAND USE AND PLANNING — Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☐	☒

3.11.1 Environmental Setting

The Project site is located on a 0.9-acre parcel, Assessor's Parcel Number 041-005-099, in unincorporated Yolo County, approximately 2.5 miles south of the city of Woodland and 3.5 miles north of the city of Davis. The parcel is approximately 1.5 miles west of State Route 113 and is adjacent to the south side of County Road (CR) 27, west of CR 99, and east of CR 98 (see Section 2.2, *Project Location*).

The substation and surrounding areas are generally flat terrain, with some agricultural and roadside ditches. The existing substation contains several key components: two transformers, capacitor banks, tubular steel poles, and three 12-kilovolt distribution lines, which extend from the substation and cross CR 27.

The expanded substation site would be constructed on 5.2 acres of the 320.8-acre parcel identified as Assessor's Parcel Number 041-050-003. This parcel contains agricultural row crops and non-native vegetation in the roadside ditches (Section 2.5.2, *Construction of the Expanded Plainfield Substation Facilities*).

The parcels surrounding the Project site are used primarily for agricultural purposes. The adjacent parcels to the south, west, and east consist of agricultural fields that support row crops. The land north of CR 27 is also primarily agricultural and is actively cultivated. A Swainson's hawk conservation easement exists on the land west of the Project site and is protected from development to support wildlife habitats. Approximately 0.3 mile to the west is a 24-acre agricultural retail facility owned by Wilbur-Ellis Company. The Project site lies within the jurisdiction of Yolo County, and its land uses are governed by the Yolo County General Plan and Zoning Ordinance. The existing substation is located on land that is not under Williamson Act agricultural conservation contract, but the land that PG&E is purchasing and adding to the footprint of the substation is enrolled as Prime Agricultural Land and is subject to a Williamson Act contract (see Section 3.2, *Agriculture and Forestry Resources*).

3.11.2 Regulatory Framework

3.11.2.1 Federal

No federal statutes, regulations, plans, or policies govern land use or planning on the Project site.

3.11.2.2 State

California Public Utilities Commission General Order No. 131-D

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order 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." 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 permits.

3.11.2.3 Local

The CPUC has exclusive jurisdiction over the siting, design, and construction of the Project; therefore, the Project is not subject to local discretionary regulations. The discussion below presents local policies and regulations for informational purposes only; the CPUC does not consider these regulations "applicable."

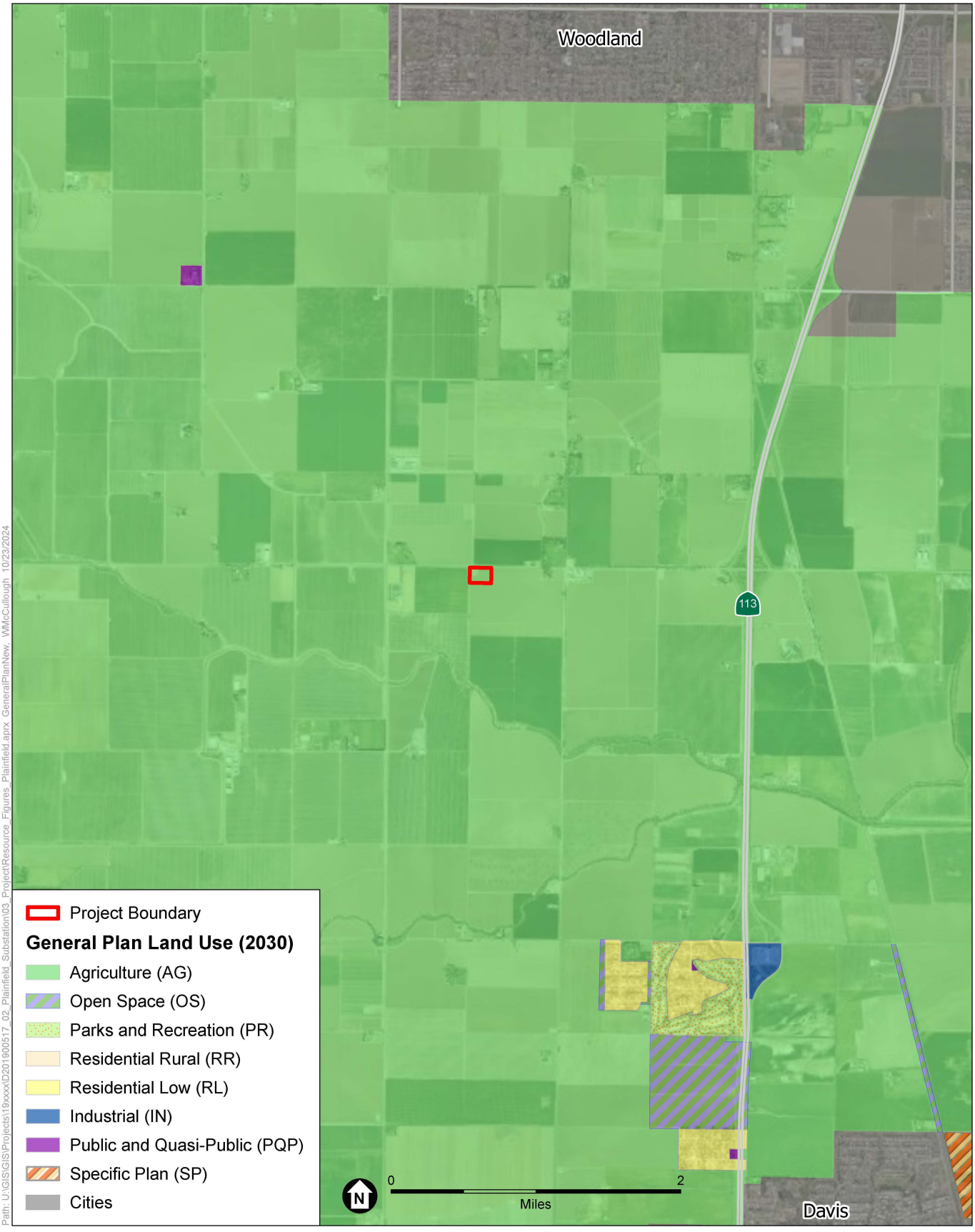
Yolo County General Plan

The 2030 Countywide General Plan (General Plan) is Yolo County's long-range planning document adopted in November 2009. The General Plan is organized into nine chapters as follows: Introduction and Administration, Vision and Principles, Land Use and Community Character Element, Circulation Element, Public Facilities and Services Element, Agriculture and Economic Development Element, Conservation and Open Space Element, Health and Safety Element, and Housing Element (Yolo County 2009).

The Project site is designated in the General Plan for Agriculture, which includes the full range of cultivated agriculture, such as row crops, orchards, vineyards, dryland farming, livestock grazing, forest products, horticulture, floriculture, apiaries, confined animal facilities, and equestrian facilities (General Plan Policy LU-1.1). Section 3.2, *Agriculture and Forestry Resources,* contains specific information pertaining to agricultural resources within and near the Project site. See **Figure 3.11-1**, ***General Plan Land Use Designations***, for the General Plan's land use designation map.

The Project site is not located within a city's sphere of influence as identified by the General Plan. The following relevant goals and policies are presented in the General Plan's Land Use and Community Character Element (Yolo County 2018):

> **Goal LU-1:** Range and Balance of Land Uses. Maintain an appropriate range and balance of land uses to maintain the variety of activities necessary for a diverse, healthy, and sustainable society.
>
> > ***Policy LU-1.1:*** Assign the following range of land use designations throughout the County, as presented in detail in Table LU-4 (Land Use Designations):



Source: ESA, 2024; Yolo County, 2024

Plainfield Substation Upgrade Project

Figure 3.11-1
General Plan Land Use Designations

ESA

> *Agriculture (AG)* includes the full range of cultivated agriculture, such as row crops, orchards, vineyards, dryland farming, livestock grazing, forest products, horticulture, floriculture, apiaries, confined animal facilities and equestrian facilities. It also includes agricultural industrial uses (e.g., agricultural research, processing and storage; supply; service; crop dusting; agricultural chemical and equipment sales; surface mining; etc.) as well as agricultural commercial uses (e.g., roadside stands, "Yolo Stores," wineries, farm-based tourism (e.g. u-pick, dude ranches, lodging), horseshows, rodeos, crop-based seasonal events, ancillary restaurants and/or stores) serving rural areas. Agriculture also includes farmworker housing, surface mining, and incidental habitat.

Goal LU-2: Agricultural Preservation. Preserve farmland and expand opportunities for related business and infrastructure to ensure a strong local agricultural economy.

> ***Policy LU-2.3:*** Prohibit the division of land in an agricultural area if the division is for non-agricultural purposes and/or if the result of the division will be parcels that are infeasible for farming. Projects related to clustering and/or transfers of development rights are considered to be compatible with agriculture.
>
> ***Policy LU-2.4:*** Vigorously conserve, preserve, and enhance the productivity of the agricultural lands in areas outside of adopted community growth boundaries and outside of city SOIs [spheres of influence].
>
> ***Policy LU-2.6:*** Encourage interim agricultural production on farmland designated for future development, prior to the start of construction, to reduce the potential for pest vectors, weeds, and fire hazards.

Yolo County Zoning Code

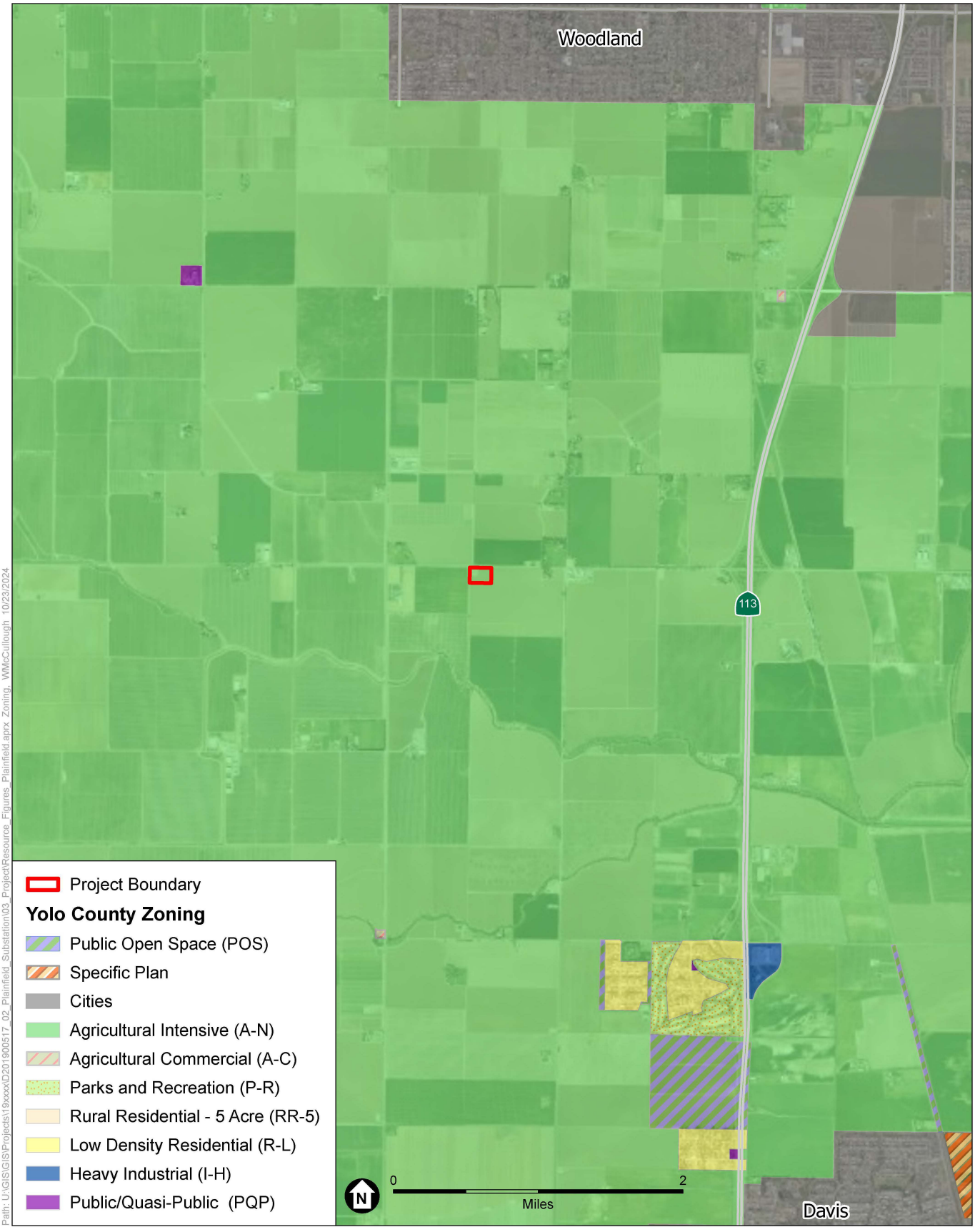
According to the Yolo County Zoning Map, Assessor's Parcel Number 041-005-099 and the portion of Assessor's Parcel Number 041-050-003 that PG&E is purchasing are zoned Agricultural Intensive (i.e., A-N). The Zoning Code (Yolo County 2021) states that the Agricultural Intensive Zone is:

> *…applied to preserve lands best suited for intensive agricultural uses typically dependent on higher quality soils, water availability, and relatively flat topography. The purpose of the zone is to promote those uses, while preventing the encroachment of nonagricultural uses. Uses in the A-N* [Agricultural Intensive] *Zone are primarily limited to intensive agricultural production and other activities compatible with agricultural uses. This includes allowing agriculturally related support uses, excluding incompatible uses, and protecting the viability of the family farm.*

See **Figure 3.11-2**, ***Zoning Designations***, for the Zoning Designation map.

3.11.3 Applicant-Proposed Measures

No Applicant-proposed measures have been identified by PG&E pertaining to land use and planning.



Source: ESA, 2024; Yolo County, 2024

Plainfield Substation Upgrade Project

Figure 3.11-2
Zoning Designations

ESA

3.11.4 Environmental Impacts

3.11.4.1 Methodology and Assumptions

The following analysis uses the criteria from Appendix G of the CEQA Guidelines to identify direct and indirect effects related to land use and planning.

3.11.4.2 Direct and Indirect Effects

Criterion a) Whether the Project would physically divide an established community: *No Impact.*

The Project site is located in rural, unincorporated Yolo County, midway between the cities of Woodland and Davis. Typically, the division of an established community would result from the construction of a physical barrier to neighborhood access or the removal of a means of access. The Project would not physically divide an established community because the construction, operation, and maintenance phases of the Project do not propose any features that would create a physical barrier that would block existing community access. Additionally, the Project would not involve the removal of any existing publicly used means of access. Project elements would not cross through any existing communities. Therefore, the Project would not physically divide an established community, and **no impact** would occur.

Criterion b) Whether the Project would 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 CPUC has regulatory authority over the Project; therefore, it is not subject to the local regulations of Yolo County. However, when possible, the Project would be implemented consistently with existing General Plan policies and the zoning designation of the Project site.

As required by General Plan Policy LU-1.1, the Project site's Agriculture land use designation allows for the full range of cultivated agriculture and also allows agriculturally related industrial and commercial uses. One of the objectives of the expanded substation is to "increase service reliability to customers, including agricultural operations" (for further details, see Section 2.1.1, *Project Objectives*).

General Plan Policy LU-2.3 prohibits the division of land in an agricultural area but allows for projects that transfer development rights. To accommodate the proposed substation expansion, the Applicant would purchase additional land from the existing landowner and no new parcels would be created (Section 2.5.6*, Land Ownership, Right-of-Way Requirements, and Easement Applications*). The substation expansion would occur on 5.2 acres of the 320.8-acre parcel under Assessor's Parcel Number 041-050-003. This would leave the remaining 315.6 acres of land designated as Prime Farmland available for agricultural use. The expansion of the substation would maintain compatibility with the region's agricultural focus.

General Plan Policy LU-2.4 requires that agricultural lands be conserved and preserved; however, not enough of the parcel would be converted into non-agricultural use to constitute a significant impact (as addressed in Section 3.2, *Agriculture and Forestry Resources*). Additionally, as mentioned in Section 3.11.1, *Environmental Setting*, the expanded substation site currently contains agricultural row crops. When purchasing the additional land from the landowners, the Applicant would also purchase the

row crops and closely coordinate with the farmer before removal (Section 2.5.2, *Construction of the Expanded Plainfield Substation Facilities*).

General Plan Policy LU-2.6 encourages interim agricultural production on farmland designated for future development before the start of construction. The substation expansion would occur on land that is currently being used for agricultural purposes and would continue until it is purchased by the Applicant for development. Therefore, the Project aligns with this policy.

Uses in the Agricultural Intensive zone are primarily limited to intensive agricultural production and other activities compatible with agricultural uses. Yolo County Zoning Code Section 8-2.304 sets forth permit requirements for land uses within agricultural zoning. Utilities within County jurisdiction, including electrical distribution and transmission substations, are a conditional use permitted through the issuance of a Minor Use Permit. Pursuant to General Order 131-D, the Project is not subject to local land use and zoning regulations as a public utility facility regulated by the CPUC.

The Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project that has been adopted for the purpose of avoiding or mitigating an environmental effect; therefore, **no impact** would occur.

3.11.5 References

Yolo County. 2009. *County of Yolo 2030 Countrywide General Plan: Agriculture and Economic Development Element.* Available: https://www.yolocounty.gov/home/showpublisheddocument/14465/635289380535200000. Accessed September 27, 2024.

Yolo County. 2018. *County of Yolo 2030 Countrywide General Plan: Land Use and Community Character Element*. October 2018. Available: https://www.yolocounty.gov/home/showpublisheddocument/77725/638296928542830000. Accessed September 27, 2024.

Yolo County. 2021. Yolo County Zoning Code, Title 8, Land Development. Chapter 2: Zoning Regulations. Article 3: Agricultural Zones. Available: https://www.yolocounty.gov/home/showpublisheddocument/72002/637753306774370000. Accessed September 25, 2024.

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3.12 Mineral Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XII. 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

3.12.1 Environmental Setting

This section evaluates the impacts of the Project related to mineral resources. The study area encompasses all Project components, including areas of temporary and/or permanent ground disturbance. The section identifies existing sources of mineral resources within the 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.

3.12.1.1 Geologic Environment

As detailed further in Section 3.7*, Geology and Soils*, the Project site is located on sedimentary deposits of the Great Valley geomorphic province. Surface geology at the site consists of Holocene-age alluvial deposits. The thickness of the surficial Holocene alluvium varies across the San Joaquin Basin but is expected to be approximately 15 feet or greater at the Project site. There are no drainages through the Project site.

The primary mineral resource presently being extracted in Yolo County is aggregate. Most of the aggregate occurs along Cache Creek, beginning at the upstream end of Capay Valley about 12 miles northeast of the Project site and extending downstream to approximately 10 miles north of the Project site, near Interstate 5. Throughout this area, the aggregate consists of gravel, sand, and clay and is roughly 100–125 feet thick (Yolo County 2005). The geotechnical investigation for the Project site encountered highly plastic fat clay from the surface to 7.5 to 15 feet below ground surface, underlain by lean and fat clay with varying amounts of sand to 30–35 feet below ground surface. The lean and fat clay is underlain by sand with silt, clay, and gravel to the maximum depth explored of 51.5 feet below ground surface (Kleinfelder 2022). The materials would not be considered suitable aggregate.

3.12.1.2 Mineral Land Classification under the Surface Mining and Reclamation Act

The California Surface Mining and Reclamation Act of 1975 (SMARA), as amended, mandated the development of mineral land classifications. These classifications help identify and protect mineral resources in areas within the state that are subject to urban expansion or other irreversible land uses that would preclude mineral extraction. After classification of mineral resource areas, SMARA provided for the designation of lands containing mineral deposits of regional or statewide significance. In addition, SMARA provided guidelines for the proper reclamation of mineral lands. In compliance with SMARA,

the State Mining and Geology Board established Mineral Resources Zones (MRZs) to classify lands that contain mineral deposits (see Section 3.12.2, *Regulatory Setting*, for more information on SMARA and MRZs). According to maps of MRZs within Yolo County, the Project site is located within areas zoned as MRZ-1, or areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources (CGS 2018, 2022; O'Neal and Guis 2018).

3.12.1.3 Oil, Gas, and Geothermal Resources

Yolo County is one of the 28 counties in California that produce gas and oil. Most of the natural gas fields in Yolo County are located along the Yolo Bypass and the Sacramento River, with more fields located in the unincorporated area of Dunnigan Hills and at the foot of the Capay Hills. Deep onshore gas wells, reaching a depth of nearly 2 miles, are found near the Clarksburg area.

The California Geologic Energy Management Division[12] provides oversight of the oil, natural gas, and geothermal industries, and regulates the drilling, operation, and permanent closure of energy resource wells. The division's online mapping application, Well Finder, was reviewed to determine the presence of any oil, gas, or geothermal resources on and around the Project site. Well Finder data indicate that there are no resources at the Project site. The Harlan Ranch Gas Field is located approximately 0.5 mile from the Project site; however, the gas field has been abandoned and there are currently no active wells located in the field (CalGEM 2024). No active or previously active wells are present on-site.

3.12.2 Regulatory Framework

3.12.2.1 Federal

No federal statutes, regulations, plans, or policies govern mineral resources on or near the Project site.

3.12.2.2 State

Surface Mining and Reclamation Act of 1975

SMARA (Public Resources Code Sections 2710–2796) and its implementing regulations (California Code of Regulations Title 14, Section 3500 et seq.) establish a comprehensive state policy for the conduct of surface mining operations and for reclaiming 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" (Public Resources Code Section 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" (California Code of Regulations Title 14, Section 3501).

The California Geological Survey maps and regulates the locations of potential mineral resources in California consistent with SMARA. To protect these potential mineral resources, the California Geological Survey has classified the regional significance of mineral resources into MRZs and mapped

[12] Formerly known as the California Division of Oil, Gas, and Geothermal Resources.

them. **Table 3.12-1**, ***Descriptions of California Mineral Land Classification System Categories***, presents descriptions of the MRZ categories. As noted, the Project site is within an area mapped as having an MRZ-1 designation.

TABLE 3.12-1
DESCRIPTIONS OF CALIFORNIA MINERAL LAND CLASSIFICATION SYSTEM CATEGORIES

Mineral Resource Zone Category	Category Description	
MRZ-1	*Areas of No Mineral Resource Significance*	
MRZ-2	Demonstrated Reserves	*Areas of Identified Mineral Resource Significance*
MRZ-3	Known Mineral Occurrence	*Areas of Undetermined Mineral Resource Significance*
MRZ-4	No Known Mineral Occurrence	*Areas of Unknown Mineral Resource Significance*

NOTE: MRZ = Mineral Resource Zone
SOURCE: California State Mining and Geology Board n.d.

The Project site is not classified by the California State Mining and Geology Board as being located within a known mineral resource area (CGS 2018, 2022; O'Neal and Guis 2018).

3.12.2.3 Local

Because the California Public Utilities Commission has exclusive jurisdiction over project siting, design, and construction, the Project is not subject to local discretionary regulations, and the information below is provided for informational purposes only. The Conservation and Open Space Element of the *2030 Countywide General Plan* (Yolo County 2009) does not designate any locally important mineral resources in the Project area.

Yolo County General Plan

The Yolo County General Plan's Conservation and Open Space Element includes goals and policies intended to preserve the future availability of mineral resources in the county and to promote the orderly extraction of mineral resources in the county while minimizing the impact of these activities on surrounding land uses and the natural environment. Relevant policies from this planning document include:

Goal CO-3: Mineral Resources. Protect mineral and natural gas resources to allow for their continued use in the economy.

***Policy CO-3.1*:** Encourage the production and conservation of mineral resources, balanced by the consideration of important social values, including recreation, water, wildlife, agriculture, aesthetics, flood control, and other environmental factors.

***Policy CO-3.2*:** Ensure that mineral extraction and reclamation operations are compatible with land uses both on-site and within the surrounding area, and are performed in a manner that does not adversely affect the environment.

***Policy CO-3.3*:** Encourage the extraction of natural gas where compatible with both on-site and surrounding land uses, and when performed in a manner that does not adversely affect the environment.

***Policy CO-3.4*:** Within the Delta Primary Zone, ensure compatibility of permitted land use activities with applicable, properly adopted natural gas policies of the Land Use and Resource Management Plan of the Delta Protection Commission.

3.12.3 Applicant-Proposed Measures

No Applicant-proposed measures have been identified by PG&E related to mineral resources.

3.12.4 Environmental Impacts

3.12.4.1 Methodology and Assumptions

Project impacts on mineral resources were evaluated by identifying whether known mineral resources of statewide, regional, or local importance occur within the Project site and, if so, by assessing the extent to which the Project would result in the loss of availability of these resources.

3.12.4.2 Direct and Indirect Effects

Analysis of the setting and Project characteristics relative to the significance criteria show that the Project would have no impact on mineral resources. The reasoning supporting this conclusion follows.

Criterion 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 Project site is located on lands classified as MRZ-1, where available geologic information suggests that little likelihood exists for the presence of significant mineral resources. The nearest active mining claims are along Cache Creek, approximately 6 miles from the Project site, and at an abandoned gas field located approximately 0.5 mile from the Project site.

Construction, operation, and maintenance would occur in the Project footprint, and therefore would not directly interfere with local mining operations. Furthermore, no mines or mineral resources have been documented on-site.

As a result, the Project would not interfere with nearby mineral extraction operations and would not result in the loss of land designated for mineral resources. Therefore, the Project would not result in the loss of availability of a known mineral resource and **no impact** would result.

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 Project site is not located on land designated for mineral resources by the Yolo County General Plan. Therefore, implementation of the Project would result in **no impact** related to the loss of a locally important mineral resource recovery site.

3.12.5 References

CalGEM (California Geologic Energy Management Division). 2024. CalGEM Well Finder, Interactive Map. Available: https://maps.conservation.ca.gov/doggr/wellfinder/. Accessed September 27, 2024.

California State Mining and Geology Board. n.d. *California Surface Mining and Reclamation Policies and Procedures Guidelines for Classification and Designation of Mineral Lands*.

CGS (California Geological Survey). 2018. *Mineral Land Classification: Concrete Aggregate in the Greater Sacramento Area Production-Consumption Region*. Available: https://www.conservation.ca.gov/cgs/Documents/Publications/Special-Reports/SR_245-MLC-SacramentoPCR-2018-Report-a11y.pdf. Accessed September 27, 2024.

CGS (California Geological Survey). 2024. *Mineral Land Classification*. https://maps.conservation.ca.gov/cgs/minerals/?page=Mineral-Land-Classification. Accessed December 16, 2024.

Kleinfelder. 2022. *Geotechnical Investigation Report, Pacific Gas and Electric Company, Plainfield Substation, Installation of Two Capacitor Banks, County Road 27, Woodland, California*. October 13, 2022.

O'Neal, M.D., and F.W. Gius. 2018. *Mineral Land Classification Map of Concrete Aggregate in the Greater Sacramento Area Production-Consumption Region*. Available: https://www.conservation.ca.gov/cgs/Documents/Publications/Special-Reports/SR_245-MLC-SacramentoPCR-2018-Plate01-a11y.pdf. Accessed September 27, 2024.

Yolo County. 2005. *Yolo County General Plan Update Background Report.* Chapter 2, "Conservation." Available: https://www.yolocounty.gov/home/showpublisheddocument/4498/635289380535200000. Accessed September 27, 2024.

Yolo County. 2009. *County of Yolo 2030 Countywide General Plan: Conservation and Open Space Element*. Available: https://www.yolocounty.gov/home/showpublisheddocument/14464/635289380535200000. Accessed September 27, 2024.

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3.13 Noise

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XIII. 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?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
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?	☐	☐	☐	☒

3.13.1 Environmental Setting

3.13.1.1 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, "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, with 0 decibel corresponding roughly to the threshold of human hearing and 120–140 decibels corresponding to the threshold of pain.

Sound pressure fluctuations can be measured in units of hertz, 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 audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequencies spanning 20–20,000 hertz. Therefore, the *sound pressure level* 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. Consequently, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes frequencies below 1,000 hertz and above 5,000 hertz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies instead of 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 specified 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 they 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 cause the noise level to vary from instant to instant. Therefore, noise exposure must be measured over a period of time to legitimately characterize the noise environment and evaluate cumulative 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 that 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).

L_{dn}: The *day-night noise level* is the energy average of the A-weighted sound levels occurring during a 24-hour period, which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night ("penalizing" nighttime noises). Noise between 10:00 p.m. and 7:00 a.m. is weighted (penalized) by adding 10 dBA to take into account the greater annoyance of nighttime noises.

CNEL: The *community noise equivalent level* is a 24-hour L_{eq} that adds a 5-dBA penalty to noise occurring during the evening hours from 7:00 p.m. to 10:00 p.m. and a 10-dBA penalty between 10:00 p.m. and 7:00 a.m. for the increased sensitivity to noise events that occur during the quiet late-evening and nighttime periods.

L_{max}: This descriptor refers to the *instantaneous maximum noise level* measured during the measurement period of interest.

Effects of Noise on People

The effects of noise on people fall into the following three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction.
- Interference with activities such as speech, sleep, and learning.
- 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 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 to predict a human reaction to a new noise environment is to compare the new noise to the existing noise level to which one has adapted, which is referred to as the *ambient noise* level. In general, the more a new noise exceeds the previous ambient noise level, the less acceptable the new

noise would be judged by those hearing it. Regarding 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 barely perceivable difference when the change in noise is perceived but does not cause a human response.
- A change of at least 5 dBA is required before any noticeable change in human response would be expected.
- 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 1. A logarithmic scale is different in that the ratio of successive intervals is not equal to 1. 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 nonlinear 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 source, 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 people to awaken (LAWA 2012).

Health effects from noise have been studied around the world for nearly 30 years. Scientists have attempted to determine whether 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. Although 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, although 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 that 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 greater 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 as a result of 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 from 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 strip of vegetation to have a noticeable effect on noise levels, it must be dense and wide. For example, to attenuate traffic noise by 5 dBA, a stand of trees must be at least 100 feet wide and dense enough to completely obstruct a visual path to the roadway (Caltrans 2013). A row of structures can shield more distant receivers depending upon the size and spacing of the intervening structures and site geometry. Similar to vegetation strips discussed above, noise barriers such as natural topography and soundwalls reduce noise by blocking the line of sight between source and receiver. Generally, a simple noise barrier that breaks the line of sight between source and receiver will provide a noise reduction of at least 5 dBA.

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. Several different methods 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 on buildings. The *root mean square* amplitude is most frequently used to describe the effect of vibration on the human body. The root mean square amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (in vibration decibels [VdB]) is commonly used to measure root mean square. The decibel notation acts to compress the range of numbers required to describe vibration (FTA 2018). Typically, groundborne vibration generated by human activity attenuates rapidly with distance from the source of the vibration.

Some common sources of groundborne vibration are trains, heavy trucks traveling on rough roads, and construction activities such as blasting, pile driving, and operation of heavy earthmoving equipment. The effects of groundborne 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 damage 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 Project site is located in unincorporated Yolo County. The primary sources of noise on the site are traffic on local roadways (e.g., County Road 27) and noise from agricultural activities. The Yolo County General Plan's Health and Safety Element identifies traffic-related noise in the Project area. Based on average daily traffic of 4,000 vehicles, noise from County Road 98 (between County Road 29 and County Road 27) generates 58.6 dBA day-night average noise level at locations 100 feet from the centerline (Yolo County 2009). The existing agricultural fields throughout the area generate occasional modest levels of noise from tilling, harvesting, and maintenance activities, which occur seasonally.

The existing Plainfield Substation includes two transformers, rated at 60/12 kilovolt 7.5 megavolt amperes and 115/60/12 kilovolt 30 megavolt amperes, respectively. These transformers, the primary sound sources associated with operation of the substation, contribute a constant low-level humming noise (see Section 5.13.1, *Environmental Setting*, of the Proponent's Environmental Assessment [PG&E 2024]). As a reference point, another PG&E substation reported a noise level of 65 dBA at 15 feet for a larger capacity transformer (i.e., 230/70 kilovolt 200 megavolt amperes). The attenuated noise level at the nearest residence (approximately 2,000 feet) was estimated to be approximately 24 dBA L_{eq} (CPUC 2020).

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, called *corona*, 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 produce small amounts of sound, radio noise, heat, and chemical reactions from 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 during humid and inclement weather, high pollution levels, and smoke from wildfires. Under these conditions, an audible hum and crackling noise may be heard (Parmar 2011). Lower voltage lines (i.e., below 230 kilovolts) emit lower levels of corona noise than higher voltage lines.

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 the most sensitive to noise. Places such as churches, libraries, and cemeteries, where people tend to pray, study, or contemplate, are also sensitive to noise. Commercial and industrial uses are considered the least sensitive to noise.

There are no noise-sensitive land uses within 1,000 feet of the Project. The nearest noise-sensitive receptor to the Project site is a residence approximately 1,600 feet east of the Project's proposed eastern property line (see Figure 2-3, *Proposed Project*).

3.13.2 Regulatory Framework

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 the 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.

3.13.2.1 Federal

Occupational Safety and Health Act

Under the Occupational Safety and Health Act of 1970 (U.S. Code Title 29, Section 651 et seq.), the U.S. Occupational Safety and Health Administration adopted regulations (Code of Federal Regulations Title 29, Section 1910.95) designed to protect workers against the effects of occupational noise exposure. These regulations establish limits on noise exposure levels as a function of the amount of time during which the worker is exposed, as shown in **Table 3.13-1**, ***OSHA-Permissible Noise Exposure Standards***. The regulations further specify requirements for a hearing conservation program (Section 1910.95[c]), a monitoring program (Section 1910.95[d]), an audiometric testing program (Section 1910.95[g]), and hearing protection (Section 1910.95[i]).

TABLE 3.13-1
OSHA-PERMISSIBLE NOISE EXPOSURE STANDARDS

Duration of Noise (hours/day)	A-Weighted Noise Level (dBA)
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5	110
0.25 or less	115

NOTES: dBA = A-weighted decibels; OSHA = U.S. Occupational Safety and Health Administration; USEPA = U.S. Environmental Protection Agency

SOURCE: USEPA 1974

There are no federal laws governing community noise; however, the U.S. Environmental Protection Agency has published noise guidelines (USEPA 1974). These guidelines recommend a day-night noise level of 55 dBA to protect the public from the effect of broadband environmental noise outdoors in residential areas and farms, other outdoor areas where people spend widely varying amounts of time, and other places where quiet is a basis for use (USEPA 1974).

Federal Transit Administration and Federal Railroad Administration Standards

Although Federal Transit Administration (FTA) standards are usually intended for federally funded mass transit projects, the impact assessment procedures and criteria included in the *Transit Noise and Vibration*

Impact Assessment Manual (FTA 2018) are routinely used for projects under review by local jurisdictions that have not adopted their own vibration impact standards. FTA and the Federal Railroad Administration have published guidelines for assessing the impacts of groundborne vibration associated with rail projects, which have been applied by other jurisdictions to other types of projects. FTA's threshold of architectural damage for structures of conventional construction from groundborne vibration is 0.2 in/sec PPV or 94 VdB (dB units of 1 microinch per second). FTA's threshold for human annoyance at residential uses is 72 VdB for "frequent events," or more than 70 vibration events of the same kind per day.

3.13.2.2 State

California Government Code Section 65302 encourages counties and cities to implement a noise element as part of their general plans. In addition, the California Governor's Office of Land Use and Climate Innovation (formerly known as the Governor's Office of Planning and Research) has developed guidelines for preparing noise elements, which include recommendations for evaluating the compatibility of various land uses as a function of community noise exposure.

Occupational Safety and Health Standards

The California Division of Occupational Safety and Health has published occupational noise exposure regulations (California Code of Regulations Title 9, Sections 5095–5099) that set employee noise exposure limits. These standards are equivalent to the federal Occupational Safety and Health Administration standards described above.

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 through legal sanctions on vehicle operators by state and local law enforcement officials.

Vibration

The California Department of Transportation has developed guidelines on addressing vibration issues associated with the construction, operation, and maintenance of transportation projects (Caltrans 2020). **Table 3.13-2**, ***Caltrans Criteria for Human Response to Transient Vibration***, shows the California Department of Transportation's criteria for human response to transient vibration.

TABLE 3.13-2
CALTRANS CRITERIA FOR 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

NOTE: Caltrans = California Department of Transportation; PPV = peak particle velocity
SOURCE: Caltrans 2020

3.13.2.3 Local

The California Public Utilities Commission has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to the commission's General Order 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 California Public Utilities Commission does not consider these regulations "applicable" as that term is used in CEQA.

Yolo County General Plan

The *Yolo County 2030 Countywide General Plan: Health and Safety Element* defines maximum allowable exterior noise level standards. The County's General Plan limits exterior noise levels to 60 dBA CNEL for single-family residential uses, 65 dBA CNEL for multi-family residential uses, and 70 dBA CNEL for park uses. The following relevant goal and policy are presented in the General Plan's Health and Safety Element:

Goal-HS-7: Noise Compatibility. Protect people from the harmful effects of excessive noise.

> ***Policy HS-7.8*:** Encourage local businesses to reduce vehicle and equipment noise through fleet and equipment modernization or retrofits, use of alternative fuel vehicles and installation of mufflers or other noise reducing equipment.

Yolo County Municipal Code

The Yolo County Code of Ordinances does not contain any regulations and standards pertaining to the Project.

3.13.3 Applicant-Proposed Measures

No Applicant-proposed measures or PG&E construction measures (avoidance and minimization measures or best management practices) have been identified related to noise and vibration.

3.13.4 Environmental Impacts

3.13.4.1 Methodology and Assumptions

Equipment noise during Project construction is the primary concern when evaluating short-term noise impacts. During operation, noise from corona discharge along the power lines and noise from general operation and maintenance activities would be the primary concerns related to long-term noise impacts. The Project is not expected to increase noise from other operational activities because no changes to existing operation and maintenance activities are proposed.

Because no noise level standards or thresholds are applicable to construction activities in Yolo County, the Project's short-term construction impacts were assessed relative to recommendations of the Yolo County General Plan's Health and Safety Element and FTA's *Noise and Vibration Impact Assessment Manual* (FTA 2018). For a general assessment, FTA recommends estimating the combined 1-hour L_{eq} for the two noisiest pieces of construction equipment for each construction phase for comparison to the daytime and nighttime levels of 90 dBA and 80 dBA, respectively. Construction-related noise levels

associated with the Project were estimated using the Federal Highway Administration's *Roadway Construction Noise Model User's Guide* (FHWA 2006). Estimates of construction noise levels 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 off-site structures.

3.13.4.2 Discussion

Criterion a) Whether the project would 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: *Less-than-Significant Impact.*

Construction

The Project is expected to take approximately 30 months to complete, with substation and power line work spanning approximately 18–21 months of activity. Project construction would consist of several phases: civil construction, installation of tubular steel poles, substation construction, and final grading. The construction scenario assumptions used in this analysis, including phasing, equipment mix, and vehicle trips, were based on information presented in Chapter 2, *Project Description*, Section 2.5.2.16, *Construction Workforce, Equipment, Traffic, and Schedule*.

Project construction would generate noise that would temporarily increase ambient noise levels in the Project vicinity. Construction noise would be generated by the operation of on-site equipment such as forklifts, graders, loaders, excavators, and drill rigs, and from on-road sources such as vehicles transporting workers, equipment, and materials to and from the Project site. The magnitude of the impact at receptors would depend on the type of construction activity, equipment being used, duration of the construction phase, distance between the noise source and receiver, the presence of intervening structures that enhance attenuation, and the existing ambient noise levels at the receptors. Levels of construction noise generated by equipment would also vary depending on factors such as the type and age of equipment, specific equipment manufacture and model, the operations that would be performed, and the overall condition of the equipment and exhaust system mufflers.

Table 3.13-3, ***Typical Noise Levels from Construction Equipment***, presents the maximum noise levels for the types of construction equipment that would be used for Project construction at a reference distance of 50 feet. As shown, Project construction equipment would generate maximum noise levels of up to 85 dBA at 50 feet. The typical operating cycles for construction equipment involve intermittent full-power operation followed by operation at lower power settings, which is accounted for in the acoustical usage factor (see Table 3.13-3). Thus, average noise levels associated with the operation of construction equipment over an hour are generally lower than the maximum noise levels indicated in Table 3.13-3.

TABLE 3.13-3
TYPICAL NOISE LEVELS FROM CONSTRUCTION EQUIPMENT

Type of Equipment	L_{eq} dBA (50 feet)
Forklift	73
Concrete Truck	79
D-3 Bulldozer	82
Gradall	85
Water Truck	74
Compactor	83
Road Grader	85
Elevating Scraper	84
Large Compactor Roller	80
2-Ton Flatbed Truck	74
Backhoe	78
Portable Generator	73
Large Excavator Drill	79
Loader	82
40-Ton Crane	81
Tractor Trailer	74
Crane with 120-Foot Boom	81
Bucket Truck	74
Boom Truck	74
Construction Digger	81
Dump Truck	76
Concrete Pump	81
Aerial Manlift	75
30-Ton Crane	81
Small Compactor	83
Mini Excavator	81

NOTES: dBA = A-weighted decibels; FHWA = Federal Highway Administration; L_{eq} = energy-equivalent noise level.
SOURCE: FHWA 2006.

Noise from construction equipment generally exhibits the acoustical characteristics of point sources; noise from point sources attenuates at a rate of 6 to 7.5 dBA per doubling of distance from the source. Construction noise levels generated during each construction phase of the Project at the nearest noise-sensitive receptor were estimated and are summarized in **Table 3.13-4**, ***Plainfield Substation Facilities—Construction Noise Levels by Phase at the Closest Noise-Sensitive Receptors***, assuming an attenuation rate of 7.5 dBA per doubling of distance from the source for soft surfaces such as agricultural fields. Consistent with the methodology recommended by FTA, the noise levels shown in Table 3.13-4 consider the simultaneous operation of the two loudest pieces of construction equipment for the L_{eq} results. The modeling conservatively assumed that all pieces of construction equipment associated with an activity would operate simultaneously for the duration of that activity at the Project boundary closest to the

receptor. No additional attenuation was assumed to account for any shielding effects as a result of intervening structures and buildings along the propagation path from the Project site to the nearest receptor.

TABLE 3.13-4
PLAINFIELD SUBSTATION FACILITIES—CONSTRUCTION NOISE LEVELS BY PHASE AT THE CLOSEST NOISE-SENSITIVE RECEPTORS

Construction Phase	Equipment Used	Construction Duration	Estimated Construction Noise Level at Nearest Receptor at 1,600 feet (dBA, L_{eq})
Substation Civil Construction–Yard Expansion	Forklift Concrete Truck, D-3 Bulldozer, Gradall, Water Truck, Compactor, Road Grader, Elevating Scraper, Large Compactor Roller, 2-Ton Flatbed Truck, Backhoe, Portable Generator, Large Excavator Drill, Loader	6 months, January to June 2026	54
TSP Delivery	40-Ton Crane, Tractor Trailer	7 months, April to October 2026	43
Material Delivery	Crane with 120-Foot Boom, Forklift	7 months, April to October 2026	40
Conductor Removal/ Installation	40-Ton Crane, Bucket Truck, Boom Truck, Forklift	7 months, April to October 2026	43
TSP Foundations	Construction Digger, Backhoe, Dump Truck, Concrete Truck, Concrete Pump	7 months, April to October 2026	48
TSP Installation	40-Ton Crane, Bucket Truck	7 months, April to October 2026	41
Substation Construction and Stormwater Pond	Forklift, Concrete Truck, D-3 Bulldozer, Gradall, Water Truck, Compactor, Road Grader, Elevating Scraper, Large Compactor Roller, 2-Ton Flatbed Truck, Backhoe, Portable Generator, Large Excavator Drill, Loader, Aerial Manlifts (60 feet), 30-Ton Crane, Small Compactor, Mini Excavator	14 months, July 2026 to September 2027	55
Substation Final Grading	D-3 Bulldozer, Water Truck, Compactor, Road Grader Elevating Scraper, Large Compactor Roller, 2-Ton Flatbed Truck, Backhoe, Loader	3 months, October to December 2027	53

NOTES: dBA = A-weighted decibels; L_{eq} = energy-equivalent noise level; TSP = tubular steel poles; Pickup trucks and other minor noise sources listed in Table 2-8,Plainfield Substation Construction Equipment and Workforce, are not described in this table.

SOURCE: PG&E 2024

As shown in Table 3.13-4, as a result of the large distance separating the Project site from the nearest receptor, noise levels at the receptor would be up to 55 dBA.

The Project's daytime construction noise level would be below both FTA's 90 dBA criterion and the "normally acceptable" exterior noise guideline of 60 dBA or less for the residential uses approximately 1,600 feet away.

Nighttime work is not likely but may be necessary on occasion to avoid or reduce schedule delays, safely complete construction activities, or accommodate system outages. Because any nighttime construction noise levels would not exceed FTA's 80 dBA nighttime criterion at the nearest receptor, Project construction noise would result in a **less-than-significant** impact.

Operation and Maintenance

The Project's operation and maintenance activities would generally be similar to existing operation and maintenance activities. Maintenance activities would include general inspection and cleaning of various

mechanisms, such as transformers, motors, circuit breakers, batteries, and transmission lines. Periodic maintenance may be needed for the graveled access road located outside the substation fence but within PG&E's property. Maintenance equipment could include front loaders, pickup trucks with trailers, a dump truck, or other similar equipment. On-site activities would likely not result in noise levels in excess of existing agricultural and electrical infrastructure operations on the Project site and surrounding properties. Thus, on-site maintenance and noise generated by vehicle trips would likely not result in a substantial increase in noise levels. Additionally, because of the substantial distance (1,600 feet) separating the nearest sensitive receptor from the Project site, operational noise generated at the Project site would attenuate to levels below the ambient noise level at this receptor, resulting in a **less-than-significant** operational noise impact.

Mitigation: None required.

Criterion b) Whether the project would generate excessive groundborne vibration or groundborne noise levels: *Less-than-Significant Impact.*

Construction

Temporary sources of groundborne vibration and noise during the Project's grading, trenching, and other construction activities would be produced by the operation of heavy construction equipment. The Project equipment types most likely to create vibration include a drill rig, large bulldozers, and loaded trucks.

Table 3.13-5, ***Construction Equipment Vibration Levels***, show the vibration levels generated by these pieces of equipment at a reference distance of 50 feet.

TABLE 3.13-5
CONSTRUCTION EQUIPMENT VIBRATION LEVELS

Construction Equipment	Reference Vibration Level at 50 feet (PPV, in/sec)
Caisson Drill (drilling rig)	0.031
Large Bulldozer	0.031
Loaded Truck	0.027
Small Bulldozer	0.001

NOTES: Caltrans = California Department of Transportation; FTA = Federal Transit Administration; in/sec = inches per second; PPV = peak particle velocity
SOURCES: Caltrans 2020; FTA 2018.

As shown in Table 3.13-5, the construction equipment with the highest vibration source level (a large bulldozer or a drill rig) generates vibration levels of 0.031 PPV in/sec at a distance of 50 feet, while loaded trucks would generate only 0.027 PPV in/sec at 50 feet. Groundborne vibration attenuates rapidly with distance and would not be perceptible beyond 100 feet from the Project boundaries. FTA's vibration threshold for building damage is 0.2 PPV in/sec, which would not be exceeded even at the reference distance of 25 feet from the highest vibration-generating construction equipment. The nearest residential structure would be approximately 1,600 feet away and vibration would attenuate to levels that would result in less-than-significant vibration impacts. FTA's threshold for human annoyance at residential uses is 72 VdB; vibration from construction equipment would attenuate to below this level within 80 feet of the source and would not be perceptible at the nearest residential receptor, 1,600 feet away.

Because of distance attenuation, Project construction would not have the potential to generate substantial short-term groundborne vibration or groundborne noise at the nearest sensitive receptors. Therefore, construction-related vibration and groundborne noise associated with the Project would result in a **less-than-significant** impact.

Operation and Maintenance

The Project would not include the use of any large rotating equipment during its operation that would introduce any new sources of perceivable groundborne vibration. In addition, operation and maintenance activities at the Project site would not require the use of heavy equipment that would generate high vibration levels. Therefore, the Project has no potential to generate ground vibration levels greater than the 0.2 in/sec or 72 VdB significance criteria for vibration. Operational vibration impacts of the Project would be **less than significant**.

Mitigation: None required.

Criterion c) Whether the project would be located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 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: *No Impact.*

The closest airport is the Medlock Field Airport, a privately owned airport located approximately 2.4 miles to the east. The Project site is not located within 2 miles of a public airport or public use airport. Therefore, the Project would not expose people working at the site to excessive noise levels from aircraft, and **no impact** would occur.

3.13.5 References

Caltrans (California Department of Transportation). 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September 2013. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf. Accessed October 25, 2024.

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3.14 Population and Housing

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XIV. 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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

This section evaluates the impacts of the Project related to population and housing. The study area was defined to include the Project site and the nearest communities within reasonable commuting distance to the Project site. **Figure 3.14-1**, ***Population and Housing***, depicts the counties and incorporated cities within the study area.

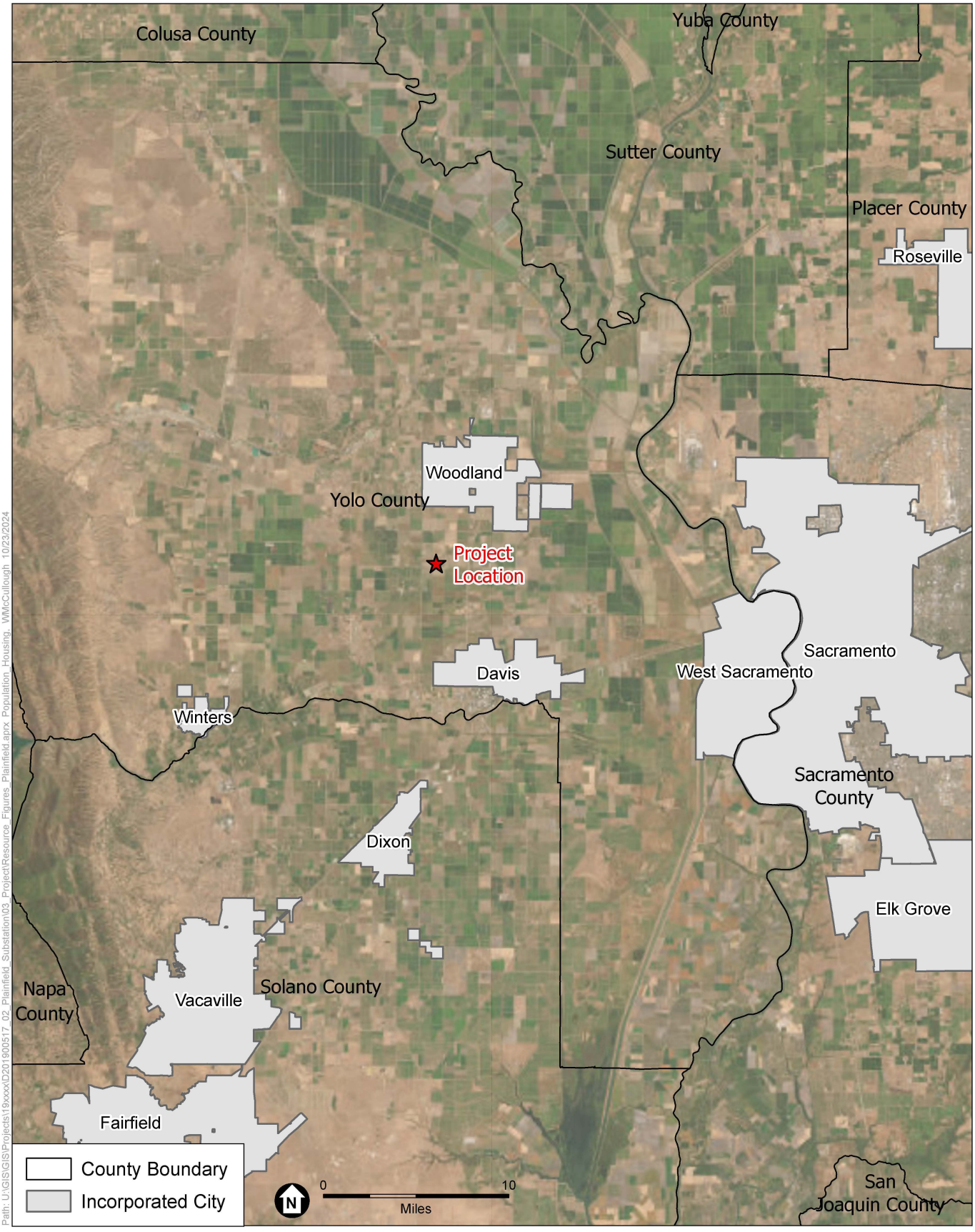
3.14.1 Environmental Setting

3.14.1.1 Population

The existing Plainfield Substation is located within unincorporated Yolo County, midway between the cities of Woodland and Davis. The study area includes the three incorporated cities and three counties surrounding or closest to the Project site because those would be the locations from which Project workers would likely commute. **Table 3.14-1**, ***Historic and Existing Population in the Study Area***, summarizes historic and existing population characteristics for Yolo, Sacramento, and Solano counties and the cities of Woodland, Davis, and Sacramento. As shown, all jurisdictions near the Project site experienced population growth between 2000 and 2024. In 2024, Yolo County had an estimated population of 220,325, an increase of approximately 31 percent from the 2000 population of 168,660. The city of Davis had an estimated population of 65,054 in 2024, an increase of approximately 7 percent from the 2000 population of 60,308. The city of Woodland had an estimated population of 60,672 in 2024, an increase of approximately 23 percent from the 2000 population of 49,155.

3.14.1.2 Labor Force and Local Unemployment Rates

As determined by the California Employment Development Department, the labor force for construction personnel in the Sacramento–Roseville–Arden–Arcade Metropolitan Statistical Area, which includes El Dorado, Placer, Sacramento, and Yolo counties, was 77,800 people as of August 2024 (EDD 2024a). The unemployment rate in the metropolitan statistical area was 4.7 percent in September 2024 (EDD 2024a). The labor force for construction personnel in Solano County as of August 2024 was 12,200 people (EDD 2024b). Solano County's unemployment rate was 5.1 percent in September 2024 (EDD 2024b).



Source: ESA, 2024; ESRI, 2024

Plainfield Substation Upgrade Project

Figure 3.14-1
Population and Housing

ESA

TABLE 3.14-1
HISTORIC AND EXISTING POPULATION IN THE STUDY AREA

Area	2000[a]	2005[a]	2010[a]	2015[b]	2024[c]
Yolo County*	168,660	186,530	200,484	208,343	220,325
Sacramento County*	1,223,499	1,350,523	1,417,259	1,495,130	1,588,656
Solano County	394,930	410,985	413,268	433,545	446,932
City of Davis	60,308	63,889	65,558	64,926	65,054
City of Woodland	49,155	52,474	55,400	57,575	60,672
City of Sacramento	407,018	442,662	466,740	487,984	520,407

NOTES: DOF = California Department of Finance

* The data for Yolo County include the city of Davis and the city of Woodland. The data for Sacramento County include the city of Sacramento.

SOURCES:

a. DOF 2012
b. DOF 2021
c. DOF 2024a

3.14.1.3 Housing

According to the California Department of Finance, at the beginning of 2024, Yolo County had an estimated 84,103 total housing units, with a vacancy rate of approximately 4.5 percent. The city of Davis had an estimated 27,996 total housing units, with a vacancy rate of approximately 5.2 percent. The city of Woodland had an estimated 22,876 total housing units, with a vacancy rate of approximately 2.7 percent (DOF 2024b).

Housing data from 2024 for Yolo, Sacramento, and Solano counties and the cities of Davis, Woodland, and Sacramento are shown in **Table 3.14-2**, ***2024 Housing Data Estimates in the Project Area***.

TABLE 3.14-2
2024 HOUSING DATA ESTIMATES IN THE PROJECT AREA

Area	Total Housing Units	Occupied Housing Units	Vacant Housing Units	Vacancy Rate (percent)
Yolo County*	84,103	80,343	3,760	4.5
Sacramento County*	606,021	582,141	23,880	3.9
Solano County	166,656	160,162	6,494	3.9
City of Davis	27,996	26,536	1,460	5.2
City of Woodland	22,876	22,161	715	2.7
City of Sacramento	209,119	199,097	10,022	4.8

NOTES: DOF = California Department of Finance

* The data for Yolo County include the city of Davis and the city of Woodland. The data for Sacramento County include the city of Sacramento.

SOURCE: DOF 2024b

3.14.2 Regulatory Framework

3.14.2.1 Federal

No federal statutes, regulations, plans, or policies govern population- and housing-related considerations that apply to the Project site.

3.14.2.2 State

California Public Utilities Commission General Order No. 131-D

The California Public Utilities Commission (CPUC) regulates activities undertaken by PG&E and other investor-owned public utilities within the state. Therefore, the CPUC would have sole and exclusive jurisdiction over land use considerations related to PG&E's construction, operation, and maintenance of the PG&E infrastructure and improvements needed to connect the Project to the grid. PG&E's work (as regulated by the CPUC would not be subject to Yolo County's land use–related requirements, including their governance of housing issues. However, CPUC General Order No. 131-D, Section XIV.B would require PG&E to "consult with local agencies regarding land use matters," potentially including any impacts related to population and housing.

3.14.2.3 Regional

Sacramento Area Council of Governments

The Sacramento Area Council of Governments (SACOG) is the metropolitan planning organization for the six-county region of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties. SACOG's primary responsibilities include transportation planning, funding assistance, airport planning, and housing affordability.

SACOG is responsible for preparing the regional housing needs allocation plan. A regional housing needs allocation plan is a state-mandated document that determines the number of housing units each city and county is responsible for accommodating in the housing element of its general plans. The SACOG Board of Directors adopted the Cycle 6 (2021–2029) regional housing needs allocation plan on March 19, 2020, which provides the number of total housing units that each jurisdiction in the SACOG region must zone for during the 8-year period (SACOG 2020). Yolo County used the 2020 regional housing needs allocation plan to inform its 2021–2029 Housing Element.

3.14.2.4 Local

Yolo County General Plan

The Yolo County 2021–2029 Housing Element was adopted by the Yolo County Board of Supervisors on August 31, 2021. The purpose of this housing element is to identify the community's housing needs; to state the community's goals and objectives with regard to housing production, rehabilitation, and conservation to meet those needs; and to define the policies and actions that the community would implement to achieve the stated goals and objectives. The County accommodates its "fair share" of regional housing needs, which are assigned by SACOG for all jurisdictions in the six-county region (Yolo County 2021).

Relevant policies from Yolo County's adopted Housing Element include:

> **Goal HO-3:** Reduce Housing Constraints. Reduce government constraints that adversely affect the timely and cost-effective development of housing.
>
> > ***Policy HO-3.5*:** Encourage developers to have meetings with staff and neighborhood meetings with residents early as part of any major development pre-application process to identify any potential issues and work to address such issues.
> >
> > ***Policy HO-3.6*:** Encourage utility and service providers to pursue available funding sources for the development of new infrastructure and upgrades to existing systems to serve affordable housing.

3.14.3 Applicant-Proposed Measures

No Applicant-proposed measures related to population and housing have been identified by PG&E.

3.14.4 Environmental Impacts

3.14.4.1 Methodology and Assumptions

The following analysis uses the criteria from Appendix G of the CEQA Guidelines to identify direct and indirect effects on population and housing. The nature of the Project, in consideration of the population and housing characteristics of this region, was used to determine whether the Project would result in a significant impact.

3.14.4.2 Direct and Indirect Effects

Criterion a) Whether the Project would 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): *No Impact.*

Construction

A project could have a direct impact on population and housing resources if it would create substantial unplanned population growth in an area. Throughout the Project's 18- to 21-month construction period, PG&E estimates that a maximum of approximately 20 workers would be needed during peak construction. This would not result in a need for a substantial number of workers to relocate to the area. The construction workforce is anticipated to reside in the Sacramento–Roseville–Arden–Arcade Metropolitan Statistical Area as mentioned in Section 3.14.1.2, *Labor Force and Local Unemployment Rates*.

If workers traveling from outside the "local" area need housing accommodations and choose to temporarily relocate, lodging demands necessary to support the workforce could be accommodated by existing vacant housing units. Yolo County has a housing vacancy rate of 4.5 percent, which is approximately 3,760 vacant homes. The cities of Davis and Woodland are the nearest incorporated cities to the Project. Davis has a vacancy rate of 5.2 percent with approximately 1,460 vacant homes, and Woodland has a vacancy rate of 2.7 percent with approximately 715 vacant homes. Should construction workers be intent on staying near the Project area, housing would be available to accommodate them, in addition to available vacant housing in other cities and counties within the study area.

Given the small number of positions required for the construction of the Project, the anticipated short-term construction period, and the available vacant housing, the Project would have no indirect impact on population growth associated with the Project's temporary workforce.

Operation

Because of the nature of the Project, most on-site operation and maintenance activities would occur only as needed once construction is completed, on a scheduled and as-needed basis. A small number of employees would be on-site at any given time during operation, leading to a minimal impact on the local population.

The Project would not include the development of new homes or businesses, so it would not directly induce permanent population growth in the Project area once operational. For these reasons, no direct population growth impacts would result from the Project.

Furthermore, the Project would not induce population growth or create new demand for housing because the facility would support the existing regional transmission system and would not provide additional power generation capacity that could stimulate local population growth (see Section 2.1.1, *Project Objectives*). Accordingly, the Project would have **no impact** on population growth associated with the extension of infrastructure.

Criterion b) Whether the Project would displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere: *No Impact.*

The Project would be constructed on approximately 5.2 acres of privately owned land designated as Agriculture in the Yolo County General Plan and zoned as Agricultural Intensive (i.e., A-N), as discussed in Section 3.12, *Land Use and Planning*. The Project would not displace any existing residents or housing, as Project facilities and associated interconnection transmission lines would be located on agricultural land, absent of people and existing housing developments or residences.

The SACOG regional housing needs allocation plan designated 57 housing units for unincorporated Yolo County between 2021 and 2029, not including student housing on the University of California, Davis, campus (SACOG 2020). The Yolo County Housing Element used the SACOG regional housing needs allocation plan to inform its residential development plans (see Section 3.14.2, *Regulatory Framework*). The Project site and surrounding areas are not included in the County's approved and proposed residential development plans to accommodate the 57 units (Yolo County 2021).

No people or housing would be displaced by the construction or operation of the Project. Therefore, it would not be necessary to construct replacement housing elsewhere and **no impact** would occur under this criterion.

3.14.5 References

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3.15 Public Services

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XV. PUBLIC SERVICES —				
a) 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 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 any of the following public services:				
i) Fire protection?	☐	☐	☐	☒
ii) Police protection?	☐	☐	☐	☒
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☐	☒

3.15.1 Environmental Setting

This section evaluates potential impacts of the Project on public services. It includes information about the environmental and regulatory setting and identifies the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

The study area for the analysis includes the service areas for fire protection, law enforcement, schools, parks, libraries, and medical providers that would serve the Project site. **Figure 3.15-1**, ***Public Services***, depicts the public services facilities in the study area: fire departments, law enforcement, schools, and other facilities, such as libraries and medical facilities.

3.15.1.1 Fire Protection

Fire protection services in the Project vicinity are provided by the Springlake Fire Protection District, which is divided into two fire service areas: Fire Service Area A, which includes properties north of County Road (CR) 29, and Fire Service Area B, which includes properties south of CR 29. The Project is in Fire Service Area A, which receives fire services from the Woodland Fire Department (SFPD 2024).

The Woodland Fire Department serves a population of approximately 65,000 in a service area encompassing 56 square miles (WFD n.d.). The department provides fire suppression, emergency medical services, fire prevention, confined-space rescue, high-angle rescue, hazardous materials, and technical rescue services. A full-service career department, the Woodland Fire Department employs a staff of 52 and responds to more than 9,000 incidents annually (WFD n.d.). The department has three fire stations; the nearest to the Project site is Station 2, approximately 3.2 miles (5 minutes by car) north of the Project site at 1619 West Street in Woodland.

Path: U:\GIS\GIS\Projects\19xxxx\D20190517_02_Plainfield_Substation\03_Project\Resource_Figures_Plainfield.aprx Figure 4.16-1 Public Services_WMcCullough 12/29/2024

Fuente: ESA, 2024

Plainfield Substation Upgrade Project

Figure 3.15-1
Public Services

ESA

3.15.1.2 Police Protection

California Highway Patrol

The California Highway Patrol (CHP) is a law enforcement agency created in 1929 to provide uniform traffic law enforcement for the State of California. The CHP has jurisdiction over all interstates and state routes in the Project area including Interstate 5 and State Route 113. The Project area is served by the CHP's Valley Division. The nearest office is approximately 5 miles to the northeast at 13739 Andrew Stevens Drive in Woodland (CHP 2024).

Yolo County Sheriff's Office

The Yolo County Sheriff's Office provides patrol services for more than 1,000 square miles. The department was founded in 1850 and currently employs more than 300 full-time, part-time, and volunteer personnel. The Yolo County Sheriff's Office serves the cities of Woodland, Davis, Winters, and West Sacramento; the University of California, Davis, campus; and the unincorporated towns of Brooks, Capay, Clarksburg, Dunnigan, Esparto, Guinda, Knights Landing, Madison, Rumsey, Yolo, and Zamora (YCSO 2024).

3.15.1.3 Schools

The Project site is located within the Woodland Joint Unified School District, which operates 12 elementary schools, two middle schools, three high schools, and one adult school and serves more than 9,000 students. Plainfield Elementary School is the nearest school in the district, approximately 2 miles from the Project site (CDE 2024).

3.15.1.4 Parks

Regional parks, city parks, wilderness areas, and scientific research areas provide a variety of recreational opportunities in Yolo County. The Project site is not located within or adjacent to a residential area, or within the immediate vicinity of any parks or recreational facilities, and no parks or recreational facilities are located on the Project site. The nearest parks are Crawford Park and Woodside Park, approximately 2.7 miles north of the Project site. Parks and other recreational resources are discussed further in Section 3.16*, Recreation.*

3.15.1.5 Libraries

There are two libraries near the Project site. The Woodland Public Library is located at 250 1st Street in Woodland, approximately 4.0 miles northeast from the nearest Project component; and Mary L. Stephens Davis Library is located at 315 E. 14th Street in Davis, 5 miles southeast of the Project site.

3.15.1.6 Hospitals and Medical Facilities

There are eight medical facilities near the Project site. Five facilities are in Davis: Davis Community Clinic, Sutter Davis Hospital, Dignity Health Woodland Clinic, and Communicare Health Center, all approximately 4 miles south of the nearest Project component, and Davis Medical Center, which is 5 miles south of the Project site. The remaining three medical facilities near the Project are in Woodland: Woodland Memorial Hospital, Northern Valley Indian Health, and Hansen Family Health Center, which are respectively located approximately 3 miles, 3.5 miles, and 4.5 miles north of the Project site.

3.15.2 Regulatory Framework

3.15.2.1 Federal

No federal statutes, regulations, plans, or policies pertaining to the provision of public services are applicable to the Project.

3.15.2.2 State

California Education Code

The following policies in the California Education Code pertain to public schools (California Education Code 2021):

> ***Section 8241***. Until the Superintendent of Public Instruction promulgates regulations for center-based programs establishing staffing ratios, the following staffing ratios shall apply:
>
> (a) Infants, 0 to 2 years old—1:3 adult-child ratio, 1:18 teacher-child ratio.
>
> (b) Infants and toddlers, 0 to 2 years old—1:4 adult-child ratio, 1:16 teacher-child ratio.
>
> (c) Children 3 to 6 years old—1:8 adult-child ratio, 1:24 teacher-child ratio.
>
> (d) Children 6 to 10 years old—1:14 adult-child ratio, 1:28 teacher-child ratio.
>
> (e) Children 10 to 13 years old—1:18 adult-child ratio, 1:36 teacher-child ratio.
>
> (f) If groups of children of varying ages are commingled, the teacher and adult ratios shall be proportionate and appropriate to the ages and groups of children.

Public Utilities Code

The following policies in the Public Utilities Code pertain to public services (Public Utilities Code 2024):

> ***Section 761.3***
>
> (g) (1) In order to ensure the safety of employees, emergency responders, and surrounding communities, each battery energy storage facility located in the state and subject to subdivision (a) shall have an emergency response and emergency action plan that covers the premises of the battery energy storage facility, consistent with Sections 142.3 and 6401 of the Labor Code and any related regulations, including the regulatory requirements applicable to emergency action plans pursuant to Section 3220 of Title 8 of the California Code of Regulations.
>
> (2) The emergency response and emergency action plan shall do all of the following:
>
> (A) Establish response procedures for an equipment malfunction or failure.
>
> (B) Include procedures that provide for the safety of surrounding residents, neighboring properties, emergency responders, and the environment. These procedures shall be established in consultation with local emergency management agencies.
>
> (C) Establish notification and communication procedures between the battery energy storage facility and local emergency management agencies.

(3) The emergency response and emergency action plan may do all of the following:

(A) Consider responses to potential off-site impacts, including, but not limited to, poor air quality, threats to municipal water supplies, water runoff, and threats to natural waterways.

(B) Include procedures for the local emergency response agency to establish shelter-in-place orders and road closure notifications when appropriate.

(4) In developing the emergency response and emergency action plan, the owner or operator of the battery energy storage facility shall coordinate with local emergency management agencies, unified program agencies, and local first response agencies.

(5) The owner or operator of each battery energy storage facility shall submit the emergency response and emergency action plan to the county and, if applicable, the city where the facility is located.

3.15.2.3 Local

The Public Facilities and Services Element of the Yolo County General Plan provides information and policy guidance to ensure that infrastructure and services will be sufficient to support existing and new development in Yolo County (Yolo County 2009).

The following policies in Section 4, *Law Enforcement,* of the Public Facilities and Services Element are relevant to the Project:

> ***Policy PF-4.2*:** Strive to maintain an average response time of 12 minutes for a 90 percent priority law enforcement calls in the rural areas.
>
> ***Policy PF-4.3*:** Maintain a minimum ratio of 1.75 sworn officers per 1,000 service population, which is defined as both the number of residents and employees located solely within the unincorporated area. For the purposes of this policy, an employee is weighted at 0.26 the cost of service for a resident. Maintenance of this ratio includes the necessary facilities, equipment, and non-uniformed personnel to support that ratio. Commercial and/or industrial projects, businesses, events, and other proposals that generate higher demands for Sheriff's services shall be evaluated to determine if additional resources are needed to address potential fiscal impacts.

The following policies in Section 5, *Fire and Emergency Medical Service,* of the Public Facilities and Services Element are relevant to the Project:

> ***Policy PF-5.4*:** Encourage fire districts and other emergency medical service providers to achieve National Fire Protection Association standards of an average response time for emergency calls of nine minutes at least 90 percent of the time in the unincorporated communities and 15 minutes at least 80 percent of the time in rural areas, with the exception of remote areas (requiring a travel distance of more than 8 miles).
>
> ***Policy PF-5.10*:** The County shall require, and applicants must provide, a will-serve letter from the appropriate fire district/department confirming the ability to provide fire protection services to the project, prior to each phase.

The following policy in Section 7, *Library Services,* of the Public Facilities and Services Element is relevant to the Project:

> ***Policy PF-7.1*:** Develop and maintain library facilities and/or services in every city and community where services are not otherwise provided. New public library service should be established in communities with populations of 5,000 or more.

3.15.3 Applicant-Proposed Measures

No Applicant-proposed measures (APMs) have been identified by PG&E to address potential Project impacts related to public services. However, APM TRANS-1 could affect public services.

- **APM TRANS-1: Traffic Management.** PG&E will obtain necessary transportation and encroachment permits from Caltrans [California Department of Transportation] and the local jurisdiction, as required, including those related to the transport of oversized loads and certain materials, and will comply with permit requirements designed to prevent excessive congestion or traffic hazards during construction. Construction activities will follow best management practices and local jurisdictional encroachment permit requirements, which may include traffic controls such as signs, cones, and flaggers. At least 24 hours prior to implementing a lane or road closure of CR 27, PG&E will coordinate with applicable emergency service providers in the Project vicinity. PG&E will provide information regarding the anticipated date, time, and duration of the lane or road closure, and a contact number.

3.15.4 Environmental Impacts

3.15.4.1 Methodology and Assumptions

This section discusses potential impacts on public services in accordance with Appendix G of the CEQA Guidelines. It is assumed that the Project would comply with applicable federal, state, and local laws and regulations, and governing agencies and institutions would be expected to continue to enforce applicable requirements to the extent that they do so currently. Furthermore, this section relies on analysis provided in Section 3.14, *Population and Housing.*

3.15.4.2 Discussion

Criterion a) Whether the project would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times or other performance objectives for fire or police protection, schools, parks, or other public facilities: *No Impact.*

Construction and operation of the Project would not involve the deterioration or alteration of any governmental facilities, nor would it require the construction of additional governmental facilities to maintain performance objectives. As stated in Section 3.14, *Population and Housing*, the Project would not cause a population increase, so additional facilities would not need to be constructed to accommodate an increased population. Therefore, construction and operation of the Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities. Additionally, the construction and operation of the Project would not create the need for new or physically altered governmental facilities, the construction of which could cause

significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for fire protection, police protection, schools, parks, or other public facilities. Therefore, **no impact** would occur.

Fire Protection

Construction

Project construction could result in emergency situations that would require emergency response services including fire protection, such as fires, severe injuries, or medical emergencies. However, with proper safety precautions, such situations would be unlikely and limited and would not generate demand for fire protection services. Furthermore, the Project would be consistent with General Plan policies as stipulated in Section 3.15.2, *Regulatory Framework.* APM TRANS-1 would require coordination with local emergency service providers at least 24 hours before implementation of a lane/road closure to maintain response times and other performance objectives. See Section 3.9, *Hazards and Hazardous Materials,* and Section 3.17, *Transportation*, for additional discussion of potential Project effects on emergency service provider access related to construction lane closures.

The Project's construction phase is planned to last for approximately 30 months with a maximum of 20 workers at its peak. As discussed in Section 3.14, *Population and Housing*, this relatively small construction crew would not create substantial unplanned population growth. Therefore, construction would not increase short-term demand for fire protection services such that new or physically altered facilities would be required. Therefore, **no impact** would occur.

Operation

After construction of the Project, equipment, electrical lines, support systems, and controls would be routinely inspected to ensure the safe and efficient operation of the substation. Routine inspections would remain unchanged from current procedures. The expanded substation would be remotely monitored, with operation and maintenance personnel performing routine monthly inspections. Power line inspections would be unchanged, and transmission line inspections would be conducted annually, alternating between ground inspections and aerial surveys. Furthermore, the local fire protection facilities (described in Section 3.15.1, *Environmental Setting*) that would serve the Project site in an emergency are already established and would not change because of the Project, as they currently serve the existing substation. For these reasons, operation and maintenance of the Project would not require the construction of new or physically altered fire protection facilities to maintain acceptable service ratios, response times, or other performance standards. **No impact** would occur.

Law Enforcement

Construction

Potential effects on law enforcement service would be primarily limited to the construction period. Temporary road closures or traffic delays on CR 27 could affect law enforcement response times, but not to the extent that the construction of new or altered facilities would be necessary to provide law enforcement services. As stated previously, implementation of APM TRANS-1 would ensure that law enforcement is notified of any road closures at least 24 hours in advance. Because the closures would be temporary and mitigated by contacting law enforcement in advance, they would not have an impact on law enforcement.

Law enforcement may need to respond in the event of vandalism, theft, or trespassing at the Project site. Security lighting and fencing would reduce instances of crime and the associated need for law enforcement services. Local law enforcement already provides service to the existing Plainfield Substation and would continue to do so with the substation expansion. Any additional service required with the expansion would be negligible. Therefore, the Project would not require construction of new or physically altered law enforcement facilities to maintain acceptable service ratios, response times, or other performance standards. **No impact** would occur.

Operation

The Project could result in an impact on CHP or sheriff's services if its operation would require additional law enforcement resources. Although the Project may result in increased demand for law enforcement services, an increase would be negligible because they already service the existing substation. Therefore, the Project would not require the construction of new or physically altered law enforcement facilities to maintain acceptable service ratios, response times, or other performance standards. **No impact** would occur.

Schools

Construction

Construction personnel for the Project would not be likely to require school services during the 30-month construction period. The relatively small construction crew of 20 workers would only negligibly increase the short-term demand for school services, so new or modified facilities would be unnecessary. Furthermore, it is not expected that the Project's construction workforce would relocate school-age children into the local school districts in the Project vicinity. However, should they do so, the school district would be equipped to handle such an increase. The Project would not result in a substantial increase in demand for school facilities, nor would it necessitate the construction of a new school or modifications to an existing one, the construction of which could cause significant environmental effects. **No impact** would occur.

Operation

As discussed in Section 3.14, *Population and Housing*, the Project would not result in substantial increases in the local population or demand for permanent housing, which typically are associated with an increased demand for public school services. Therefore, the Project would not result in a substantial increase in demand for school facilities, nor would it necessitate the construction of a new school or modifications to an existing one, the construction of which could cause environmental effects. **No impact** would occur.

Parks

As described in Section 3.16, *Recreation*, which evaluates the Project's potential to cause accelerated deterioration of park facilities, the Project would not require the construction of new parks or modifications to existing ones, nor would construction or operation alter or impair the use of parks. Furthermore, the Project would not increase demand for parks, because as stated in Section 3.14, *Population and Housing*, the Project would not cause a population increase, nor would it require the creation of additional parks to maintain service ratios. Therefore, **no impact** would occur.

Other Public Facilities

The Project would not result in substantial adverse impacts on other public facilities, such as libraries and medical facilities, because it would not result in a notable increase in local population or housing, which would typically increase demand for these services. Although unlikely, it is possible that Project construction could result in a minor increase in the use of other types of public services, such as medical facilities and libraries. However, construction would be expected to require only 20 workers, and such increases would not be substantial. Therefore, the Project would not necessitate the construction of new public facilities or modifications to existing ones, which could cause significant environmental effects. **No impact** would occur.

3.15.5 References

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3.16 Recreation

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XVI. 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
c) Would the project reduce or prevent access to a designated recreation facility or area?	☐	☐	☐	☒
d) Would the project substantially change the character of a recreational area by reducing the scenic, biological, cultural, geologic, or other important characteristics that contribute to the value of recreational facilities or areas?	☐	☐	☐	☒
e) Would the project damage recreational trails or facilities?	☐	☐	☐	☒

3.16.1 Environmental Setting

This section evaluates potential impacts of the Project on recreational resources. It includes information about the environmental and regulatory setting and identifies the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

Federal, state, and local agencies provide a wide variety of recreational activities within Yolo County and the cities of Woodland and Davis. **Table 3.16-1**, ***Recreational Areas and Facilities within 5 Miles of the Project***, lists the parks, trails, and recreational areas within 5 miles of the Project site by jurisdiction, and **Figure 3.16-1**, ***Recreational Areas and Facilities within 5 Miles of the Project***, visually displays their locations.

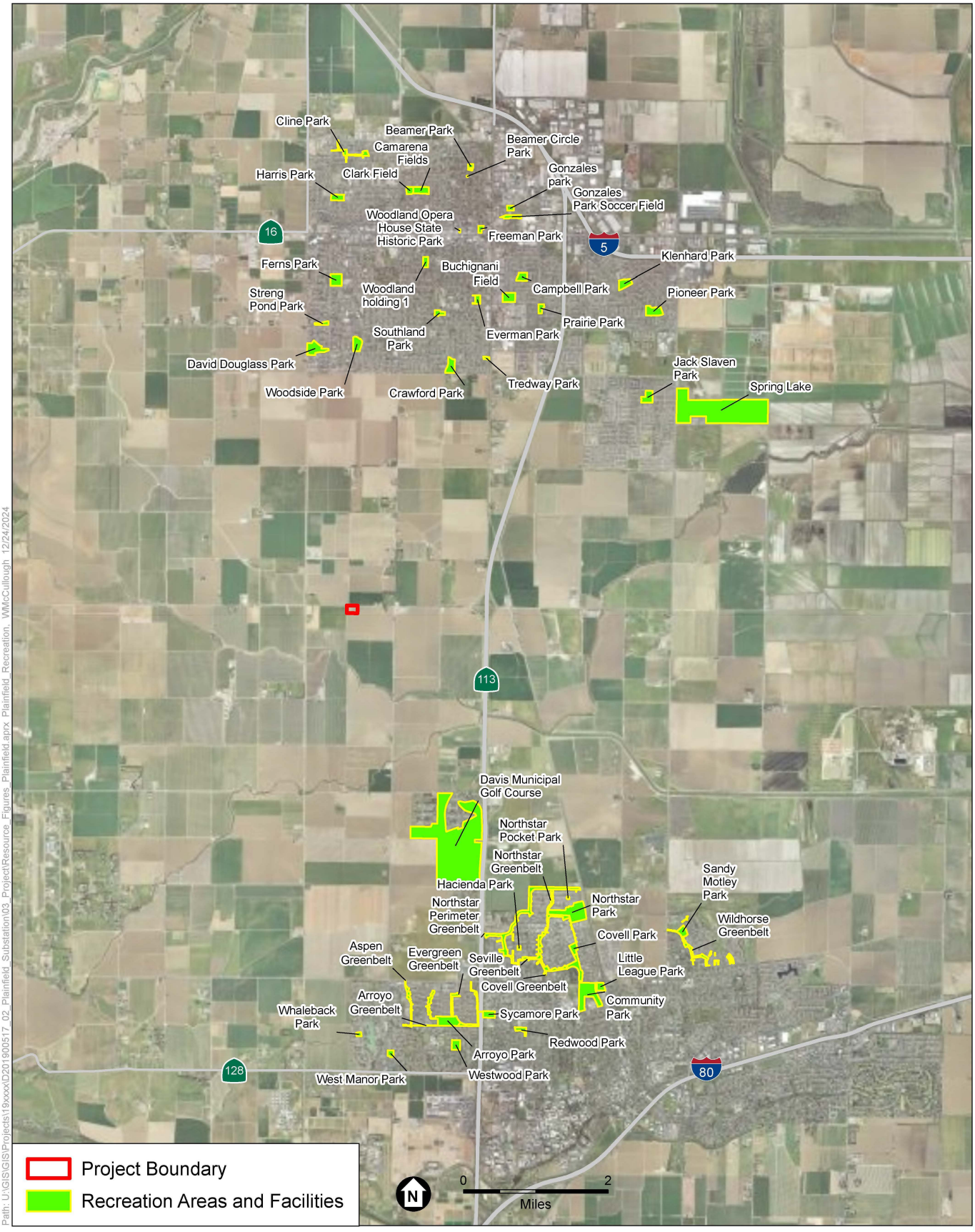
TABLE 3.16-1
RECREATIONAL AREAS AND FACILITIES WITHIN 5 MILES OF THE PROJECT

Recreational Area/Facility	Managing Agency	Distance from Nearest Project Component Site/Alignment (miles)
Municipal Golf Course	City of Davis	2.2
Crawford Park	City of Woodland	2.7
Community and Senior Center	City of Woodland	2.7
Woodside Park	City of Woodland	2.7
Sports Park	City of Woodland	2.8
Spring Lake Park	City of Woodland	3.4
John Ferns Park	City of Woodland	3.4
Harris Field	City of Woodland	3.4
Everman Park	City of Woodland	3.5

TABLE 3.16-1
RECREATIONAL AREAS AND FACILITIES WITHIN 5 MILES OF THE PROJECT

Recreational Area/Facility	Managing Agency	Distance from Nearest Project Component Site/Alignment (miles)
Rick Gonzales Sr. Park	City of Woodland	3.6
City Park	City of Woodland	3.7
Jack Slavern Park	City of Woodland	3.8
Campbell Park	City of Woodland	3.9
Woodland Opera House	California Department of Parks and Recreation	4.2
Freeman Park	City of Woodland	4.2
Harris Park	City of Woodland	4.3
Camarena/Pedroia Field	City of Woodland	4.5
Christiansen Park	City of Woodland	4.5
Clark Field	City of Woodland	4.5
Pioneer Park	City of Woodland	4.5
Community Swim Center	City of Woodland	4.5
Klenhard Park	City of Woodland	4.5
Cline Park	City of Woodland	4.8
Schneider Park (Greenbelt Park)	City of Woodland	4.8
Beamer Park	City of Woodland	4.9
Senda Nueva Greenbelt Play Area	City of Davis	3.9
Northstar Park	City of Davis	3.9
Arroyo Park	City of Davis	4.5
Covell Park	City of Davis	4.5
Whaleback Park	City of Davis	4.5
Community Park	City of Davis	4.6
Sycamore Park	City of Davis	4.6
Stonegate Country Club	Stonegate Master Association	4.6
Wildhorse Golf Course	Charlie Klein (Club Manager)	4.6
Redwood Park	City of Davis	4.8
Westwood Park	City of Davis	4.8
West Manor Park	City of Davis	4.8
Little League Park	City of Davis	4.8
Village Home Park	City of Davis	4.8
Sandy Motely Park	City of Davis	5.0
Gibson House Museum	Yolo County	3.2

SOURCES: City of Davis 2007; City of Woodland 2017; Yolo County 2009.



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Source: ESA, 2024; CPAD, 2021

Plainfield Substation Upgrade Project

Figure 3.16-1
Recreational Areas and Facilities within 5 Miles of the Project

ESA

3.16.2 Regulatory Framework

3.16.2.1 Federal

No federally administered public lands are located within or near the Project site. The closest federal recreational site is the Berryessa Snow Mountain National Monument, located approximately 17.5 miles west of the Project site (BLM 2024).

3.16.2.2 State

The California Department of Parks and Recreation helps to preserve the state's biological diversity, protect its natural and cultural resources, and provide opportunities for outdoor recreation. The department manages several public parks and historic sites within Yolo County. The closest state park is the Woodland Opera House, a California State Historic Park. The Woodland Opera House offers classes, shows, and the historic architecture of a 19th century opera house. The Woodland Opera House is located 4.2 miles north of the Project site in the city of Woodland (Woodland Opera House 2024).

3.16.2.3 Local

The Yolo County General Plan's Public Facilities and Service Element provides information and policy guidance to ensure that infrastructure and services will be sufficient to support existing and new development in Yolo County (Yolo County 2009).

One policy in Section 3, *Community Parks*, provides a quantitative goal for the provision of park land:

> ***Policy PF-3.1*:** Establish a service threshold of 5 acres of community (neighborhood) park per 1,000 people in each unincorporated town.

3.16.3 Applicant-Proposed Measures

No Applicant-proposed measures have been identified by PG&E to address potential impacts related to recreational resources.

3.16.4 Environmental Impacts

3.16.4.1 Methodology and Assumptions

This section discusses potential impacts on recreational resources in accordance with Appendix G of the CEQA Guidelines. The Project would be regulated by the various laws, regulations, and policies described in Section 2.6, *Required Approvals*, and by the applicable regulations related to recreation that are described in Section 3.16.2, *Regulatory Framework*. The Project would comply with applicable federal, state, and local laws and regulations, and governing agencies and institutions would be expected to continue to enforce applicable requirements to the extent that they do so currently.

3.16.4.2 Direct and Indirect Effects

Criterion a) Whether the project would 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: *No Impact.*

The use of recreational facilities is often directly proportional to the number of people who live nearby, particularly when residents can walk to the facilities (National Recreation and Park Association n.d.). If a population were to increase near recreational facilities, the use of those facilities would consequently increase. However, if the number of available recreational facilities were to decrease, the remaining facilities may see increased usage because fewer recreation options would be available to the population.

As discussed in Section 3.14, *Population and Housing*, the Project would not significantly increase the population directly or indirectly. Furthermore, as indicated in Section 3.15, *Public Services*, the Project would not generate a need for more parks to adequately accommodate a change in population or use of parks.

Construction

The construction phase of the Project is planned to last up to approximately 30 months, with a maximum of 20 workers at one time at its peak. Construction workers would not be likely to use parks during their lunch breaks or non-working hours, as the nearest recreational facilities are 2.2 miles away near the city of Davis. However, if workers were to use the recreational facilities during their lunch breaks or non-working hours, this limited usage by construction personnel would not result in accelerated physical deterioration of these parks. Therefore, the limited use of recreational facilities by construction personnel would have **no impact**.

Operation

Routine inspections of equipment, electrical lines, support systems, and controls ensure safe and efficient operation of the substation. Routine inspections would be unchanged from current procedures. The expanded substation would be monitored remotely, with operation and maintenance (O&M) personnel performing routine monthly inspections. Power line inspections would be unchanged, and transmission line inspections would be conducted annually, alternating between ground inspections and aerial surveys. Therefore, because recreational facility usage by O&M personnel would increase only marginally, **no impact** on such facilities would occur during Project operation.

Criterion b) Whether the project would include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment: *No Impact.*

Recreational facilities are not included as components of the Project. Additionally, the Project would not indirectly cause a population increase during either construction or O&M activities, nor would it necessitate the construction or expansion of additional recreational facilities. The Project would not result in any need for additional recreational facilities to be constructed because the Project would not cause unplanned growth (as discussed in Section 3.14, *Population and Housing*), nor would it include new recreational facilities. Therefore, **no impact** would result from, the construction or operation of the Project.

Criterion c) Whether the project would reduce or prevent access to a designated recreational facility or area: *No Impact.*

Neither the construction phase nor the O&M phase of the Project would reduce or prevent access to a designated recreational facility or area, as the nearest recreational facility is 2.2 miles away near the city of Davis. Given this distance, the Project would not reduce or prevent access to a designated recreational facility, as it would not be close enough to cause an impact. Therefore, **no impact** related to the accessibility of recreational facilities would result from the construction or operation of the Project.

Criterion d) Whether the project would substantially change the character of a recreational area by reducing the scenic, biological, cultural, geologic, or other important characteristics that contribute to the value of recreational facilities or areas: *No Impact.*

Neither the construction phase nor the O&M phase of the Project would change the character of a recreational area, as the nearest recreational facility is located 2.2 miles away near the city of Davis. Given this distance, the Project would not change the character of a designated recreational facility or area, as it would not be close enough to cause an impact. Therefore, **no impact** related to the character of recreational facilities would result from the construction or operation of the Project.

Criterion e) Whether the project would damage recreational trails or facilities: *No Impact.*

Neither the construction phase nor the O&M phase of the Project would damage recreational trails or facilities, as the nearest recreational trail or facility is located 2.2 miles away near the city of Davis. Given this distance, the Project would not damage any recreational trails or facilities, as it would not be close enough to cause an impact. Therefore, **no impact** related to damage to recreational trails or facilities would result from the construction or operation of the Project.

3.16.5 References

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3.17 Transportation

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XVII. TRANSPORTATION — Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☒	☐
e) Would the project create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations?	☐	☐	☒	☐
f) Would the project interfere with walking or bicycling accessibility?	☐	☐	☒	☐
g) Would the project substantially delay public transit?	☐	☐	☐	☒

3.17.1 Environmental Setting

The environmental setting for the Project includes transportation facilities that would be used to access the Project site, which include major highways and local roadways.

3.17.1.1 Roadway Network

Regional transportation to the Project site is facilitated primarily by a system of freeways and highways in Yolo County, including Interstates 5, 80, and 505. State Route (SR) 113 runs north-south approximately 1.5 miles east of the Project site. SR 113 provides main regional access to the Project site and is the primary roadway between the cities of Woodland and Davis, providing a north-south connection between Interstate 5 and Interstate 80. See Figure 2-1, *Project Location*, in Chapter 2, *Project Description*, for a depiction of the regional transportation network.

SR 113 is a two-lane California state freeway with four lanes on each side. The annual average daily traffic for SR 113 north of County Road (CR) 27 is 30,000 vehicle trips. The annual average daily traffic south of CR 27 is 18,100 vehicle trips (Caltrans 2022).

CR 27 is located immediately adjacent to the north side of the Project site. CR 98 and CR 99 intersect CR 27 and are located approximately 0.5 mile west and east of the existing substation, respectively. CR 25 and CR 29 are parallel to CR 27, 1.5 miles to the north and 2 miles to the south, respectively. CR 25, CR 27, CR 29, CR 98, and CR 99 are all two-lane roads under the jurisdiction of Yolo County. See Figure 2-3, *Proposed Project*, in Chapter 2, *Project Description*, for a depiction of the Project site's proximity to CR 27, CR 98, and CR 99.

The average numbers of daily trips for relevant CR segments are 1,700 vehicle trips on CR 27 between CR 98 and SR 113 (i.e., traffic passing by the Plainfield Substation); 4,000 vehicle trips along CR 98 between CR 27 and CR 29; and 1,800 vehicle trips along CR 99 between CR 27 and CR 31 (Yolo County 2009).

CR 27 provides primary local access to the existing substation, with one main access point onto the site. The access point off CR 27 leads to a gated entrance into the existing, fenced substation facility. Separate informal dirt agricultural roads provide access to the east, west, and south sides of the fenced facility, as well as to the utility poles on the north side of CR 27.

3.17.1.2 Public Transportation

No transit facilities exist in the vicinity of the Project site. Public transportation closest to the Project site is provided by Yolo Transportation District's Yolobus, which provides scheduled local round trip services within West Sacramento and Woodland. Yolobus also provides intercity round trip services between Woodland, Davis, West Sacramento, downtown Sacramento, and Sacramento International Airport and within Woodland, Esparto, Capay, and Cache Creek Casino Resort. Additionally, Yolobus provides express round trip services from Davis to Sacramento and from Woodland to Sacramento. The bus stops closest to the Project site are in the city of Woodland, approximately 4 miles north of the Project site. No dedicated transit routes provide service to the Project site (YoloTD 2024a).

3.17.1.3 Nonmotorized Transportation

No dedicated pedestrian facilities are present along CR 27 and other roads in the immediate vicinity of the Project site. The Yolo County Bicycle Transportation Plan identifies existing and planned bikeways in Yolo County. The closest bicycle facilities are along CR 99, approximately 0.4 mile west of the Project site, where a Class II Bikeway bike lane connects Woodland to Davis via CR 29 and CR 99. Class II Bikeways are defined as on-street routes intended to provide continuity to bikeway systems (Yolo County 2013).

No planned or proposed bikeways exist in the Project vicinity along CR 27. Along CR 98, a bike and safety improvement project is being implemented in two phases. Phase I, completed in 2014, added paved shoulders and improved major intersections between Woodland and the intersection of CR 98 with CR 29. Phase II would begin approximately 1,300 feet south of CR 29 and extend 4.1 miles southward to the Solano County boundary (Yolo County 2021). Acquisition of permanent and temporary easements for Phase II of the Project commenced in 2023 (Yolo County 2023).

Airports

The nearest airfield to the Project site is the Yolo County Airport, approximately 6 miles southwest of the Project site. The Project is not anticipated to result in any impacts on this airport.

3.17.2 Regulatory Framework

3.17.2.1 Federal

No federal regulations related to transportation are applicable to the Project.

3.17.2.2 State

The California Department of Transportation (Caltrans) owns the rights-of-way for state routes, including any on- and off-ramps that provide access to the Project site. Caltrans is also the administering agency for regulations related to traffic safety, including the licensing of drivers, weight and load limitations, transportation of hazardous and combustible materials, and the safe operation of vehicles. The following Caltrans regulations apply to the Project's potential transportation and traffic impacts:

- **California Vehicle Code, Division 15, Chapters 1–5 (Size, Weight, and Load)** include regulations pertaining to licensing, size, weight, and load of vehicles operated on highways.
- **California Streets and Highways Code, Sections 660–711 and 670–695** require permits from Caltrans for any roadway encroachment during truck transportation and delivery, include regulations for the care and protection of state and county highways and provisions for the issuance of written permits, and require a permit for any load that exceeds Caltrans weight, length, or width standards for public roadways.

3.17.2.3 Local

The California Public Utilities Commission has exclusive jurisdiction over project siting, design, and construction; therefore, the Project is not subject to local discretionary regulations. This section includes a summary of relevant local transportation policies, plans, or programs for informational purposes and to assist with CEQA review.

Yolo County General Plan

The Yolo County General Plan's Circulation Element provides the framework for Yolo County decisions concerning the countywide transportation system, which includes various transportation modes and related facilities. It also provides for County coordination with the incorporated cities within the county, the Yolo County Transportation District, the Sacramento Area Council of Governments (SACOG), and federal and state agencies that fund and manage the County's transportation facilities (Yolo County 2009). The following transportation-related policy is applicable to the Project:

> ***Policy CI-7.2*:** Encourage movement of goods by truck on freeways and other appropriate designated routes.

Additionally, Policy CI-1.10 lists one primary route for emergency evacuation from Yolo County within the Project vicinity: CR 98, heading south from Woodland into Solano County.

Yolo County Bicycle Transportation Plan

The Yolo County Bicycle Transportation Plan is a long-range, comprehensive, and consistent policy guide for achieving a countywide bikeway network that lists current priorities for bicycle facility development. The plan sets forth goals and policies for bicycle facilities in the unincorporated county in response to identified needs. The plan provides a viable system of bike routes that, when constructed, would encourage and promote more bicycle riding. Because of the uncertainty of funding, this plan does not contain funding or construction schedules. Specific policies and suggested actions are described, and routes are prioritized as guides for future action.

The plan was reviewed for consistency with bicycle planning documents prepared by the cities of Davis, Sacramento, Woodland, West Sacramento, and Winters and Solano and Sacramento counties. It was also delivered to SACOG for review to ensure consistency with the regional Metropolitan Transportation Plan (Yolo County 2013).

Yolo Active Transportation Corridors

The Yolo Active Transportation Corridors Plan is a long-range transportation planning, community engagement, and construction engineering project. The plan aims to develop an active transportation plan for a network of multi-use trails that would help to address barriers to mobility for low-income and minority residents of Yolo County. The draft active transportation improvement projects are currently being developed and are expected to be finalized by mid-2025 (YoloTD 2024b).

Yolo Transportation District Short Range Transit Plan

The Yolo Transportation District is updating its Short Range Transit Plan for 2024–2031, covering Yolobus and other associated transit services; however, as of December2024, the Short Range Transit Plan had not yet been adopted. A Short Range Transit Plan is a document that outlines how a public transportation system would operate and serve its community over the next few years. The last such plan for the district was the Yolo County Transportation District Short Range Transit Plan for 2014–2021. SACOG requires transit agencies to have a current Short Range Transit Plan to receive state transportation funds (YoloTD 2024c).

Sacramento Area Council of Governments Regional Transit Network Plan

The SACOG Regional Transit Network Plan was approved by the SACOG board of directors at its May 2024 meeting. Through the Regional Transit Network Plan, SACOG is taking the first step in developing and prioritizing a list of regional transit corridors for future investment. The plan also identifies potential near-term projects to improve transit services more quickly on existing bus routes. These regional transit corridors will be included in the 2025 Metropolitan Transportation Plan/Sustainable Communities Strategy, now named the 2025 Blueprint (SACOG 2024).

3.17.3 Applicant-Proposed Measures

The Project includes two Applicant-proposed measures (APMs) related to transportation:

- **APM GHG-1: Greenhouse Gas Emissions Reduction During Construction.**
  a) If suitable park-and-ride facilities are available near construction workers' residences, they shall be encouraged to carpool to the job site;
  b) Maintain on-road and off-road vehicle tire pressures to manufacturer specifications. Tires will be checked and re-inflated at regular intervals;
  c) Recycle demolition debris for reuse to the extent feasible; and
  d) Maintain construction equipment in proper working condition per PG&E standards.
- **APM TRANS-1: Traffic Management.** PG&E will obtain necessary transportation and encroachment permits from Caltrans and the local jurisdiction, as required, including those related to the transport of oversized loads and certain materials, and will comply with permit requirements designed to prevent excessive congestion or traffic hazards during construction. Construction

activities will follow best management practices and local jurisdictional encroachment permit requirements, which may include traffic controls such as signs, cones, and flaggers. At least 24 hours prior to implementing a lane or road closure of CR 27, PG&E will coordinate with applicable emergency service providers in the Project vicinity. PG&E will provide information regarding the anticipated date, time, and duration of the lane or road closure, and a contact number.

3.17.4 Environmental Impacts

3.17.4.1 Methodology and Assumptions

The following analysis uses the criteria from Appendix G of the CEQA Guidelines to identify direct and indirect effects on transportation. The analysis incorporates APMs to reduce effects.

3.17.4.2 Direct and Indirect Effects

Criterion a) Whether the project would conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities: *Less-than-Significant Impact.*

Construction

As described in Chapter 2, *Project Description*, construction would be short-term and would take approximately 30 months to complete, with construction work spanning approximately 18–21 months of activity. Construction of the Project would temporarily affect traffic and transportation facilities around the Project site. The temporary effects would result from an increase in vehicle trips to and from the site to transport materials and equipment and to provide access by construction workers. Construction equipment and workers would access the site along CR 27 via the primary entrance of the existing Plainfield Substation, the existing secondary entrance, and the new proposed access road that would be constructed 300 feet east of the existing primary entrance (see Figure 2-4, *Project Components*, in Chapter 2, *Project Description*). Construction of the new access road would provide a separate ingress and egress route to improve traffic flow and accessibility to the Project site.

Peak construction would likely require a maximum of approximately 20 workers, which would result in a maximum of 50 trips per day. As explained in Section 3.14, *Population and Housing*, worker trips are anticipated to originate primarily from the greater Yolo County area, Sacramento County, and Solano County. Because truck traffic would enter from and exit to a County-maintained roadway, the Applicant would comply with APM TRANS-1 as listed in Section 3.17.3, *Applicant-Proposed Measures*. Pursuant to APM TRANS-1, the Applicant would obtain applicable encroachment and transportation permits from Caltrans and local jurisdictions. Temporary traffic control on CR 27 may be required during the construction phase to address public safety when construction-related traffic enters or exits the Project site. Traffic control may also be required when the overhead conductor is replaced between the substation and the tubular steel pole is replaced on the north side of CR 27. Additionally, APM GHG-1 listed above includes a provision to encourage construction workers to use suitable park-and-ride facilities and carpool to the site. Implementation of these measures would likely limit roadway congestion and maintain traffic safety, in compliance with federal, state, and local policies and regulations related to transportation. With implementation of these measures, construction-related transportation impacts would not be anticipated to conflict with relevant federal, state, and local transportation policies, plans, and standards. Therefore, this impact would be **less than significant**.

As described in Section 3.17.1, *Environmental Setting*, no transit or pedestrian facilities exist within the Project vicinity. The nearest bicycle lane follows CR 99, approximately 0.4 mile east of the Project. Phase II of the CR 98 Bike and Safety Improvement Plan, involving acquisition of permanent and temporary easements for the Project, commenced in 2023. Should the work involving improvements along CR 98 still be underway during the Project's construction phase, Project traffic could use alternate routes to avoid construction activities along CR 98. Therefore, this impact would be **less than significant**.

Operation and Maintenance

Project operation and maintenance (O&M) would result in minor impacts on roadways. The Project would not require any on-site staff to operate or maintain the expanded substation. PG&E would monitor the substation remotely from its control center, and O&M personnel would perform routine monthly inspections. Monitoring and inspections would result in a negligible number of vehicle trips, which would likely not result in any noticeable change to traffic conditions on roadways in the Project vicinity. Therefore, vehicle traffic during Project O&M would be similar to existing conditions. Considering the frequency of team visits to the Project site, Project operation would likely have a negligible impact on regional and local roadways and would not conflict with relevant federal, state, or local transportation policies, plans, and standards. This impact would be **less than significant**.

Criterion b) Whether the project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b): *Less-than-Significant Impact.*

Section 15064.3 was added to the CEQA Guidelines to provide guidance for determining the significance of transportation impacts. This section provides criteria for ~~determining~~ a project's transportation impacts~~,~~ ~~,including for land use projects (Section 15064.3[b][1]) and transportation projects (Section 15064.3[b][2]).~~ As noted in CEQA Guidelines Section 15064.3(a), "For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project." Because the Project would not be a traditional land use or transportation project that would generate vehicle miles traveled (VMT) on a regular basis, Criteria 1 Land Use Projects (Section 15064.3[b][1] and Criteria 2 Transportation Projects (Section 15064.3[b][2]) are not applicable. Criteria 3 A qualitative analysis of transportation impacts (Section 15064.3[b][3]) is ~~provided accordingly (Section 15064.3[b][3])~~ applicable to the Project and is discussed below.

The *Technical Advisory on Evaluating Transportation Impacts in CEQA* published by the Governor's Office of Planning and Research (now Governor's Office of Land Use and Climate Innovation) (OPR 2018) provides guidance on thresholds used to establish the significance of VMT impacts. That guidance indicates that projects that would generate fewer than 110 automobile vehicle trips per day can be assumed to result in a less-than-significant VMT impact. The Project would not include on-site staff, and vehicle trips associated with Project O&M would be limited to monthly and annual on-site inspection and maintenance activities conducted by small, specialized teams at the Project site. The Project would be operated remotely and would therefore generate negligible VMT. No long-term increase in VMT would occur, and increases in VMT resulting from Project construction would be temporary. The Project would not result in increased VMT at the Project site and would not conflict with CEQA Guidelines Section 15064.3(b). Therefore, this impact would be **less than significant**.

Criterion c) Whether the project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment): *No Impact.*

The Project includes construction of a new private access road that would provide internal access to the Project site. This access road would be designed in accordance with all relevant Yolo County roadway design standards. Furthermore, APM TRANS-1 would be implemented to provide safe passage and minimize traffic impacts of the substation expansion. Any necessary traffic management during construction to address public safety would be temporary and short-term, consistent with applicable regulations, and would be coordinated with Yolo County. Therefore, the Project would not increase hazards on existing roadway facilities related to transportation improvements. The Project would improve reliable energy utility-related uses at the Project site, adjacent to existing energy utility uses. Therefore, the Project would not result in the construction of an incompatible land use that could thereby substantially increase hazards. For these reasons, **no impact** would occur.

Criterion d) Whether the project would result in inadequate emergency access: *Less-than-Significant Impact.*

The Project would not result in inadequate emergency access. The nearest County-designated emergency evacuation route would be on CR 98, heading south from Woodland into Solano County (see Section 3.17.2, *Regulatory Framework*); however, this route is not in the vicinity of the Project site. Therefore, the Project would not affect any County-designated emergency access routes. Construction vehicles and equipment would exit off CR 27 and would remain within the approved work areas on the south and north sides of the road. Traffic management expected during construction would be temporary and short-term, and emergency vehicle access would be maintained even in the event of a temporary road or lane closure. In addition, APM TRANS-1 would require that traffic controls and other traffic safety measures be in place to maintain proper traffic flow during any temporary construction activities affecting CR 27. APM TRANS-1 would also require that the Applicant coordinate a road or lane closure with emergency service providers at least 24 hours before any full or partial road closure. This measure would further minimize any vehicle delay caused by construction activity. Therefore, the impact would be **less than significant**.

Criterion e) Whether the project would create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations: *Less-than-Significant Impact.*

As discussed previously, no pedestrian or transit facilities exist within the vicinity of the Project site. Additionally, no bicycle facilities extend along CR 27 where construction activities would be taking place. The primary entrance to the existing Plainfield Substation, located along CR 27, currently serves as the main point of ingress and egress. A new entrance is proposed for construction approximately 300 feet east of the primary entrance along CR 27. This new access point is designed to improve traffic flow and accessibility during construction and ongoing O&M of the facility (see Section 2.5.1.2, *Access Roads*). Proposed construction activities along CR 27 include the replacement of two culverts, the installation of a third culvert along the south side of the roadway, and the replacement of an electrical transmission conductor across the road. As discussed in Section 2.5.2.10, *Public Safety and Traffic Control*, traffic control would be implemented to manage traffic along CR 27 during the short duration it would take to install the conductor. In addition, the Applicant would comply with APM TRANS-1, which requires that

traffic controls and other traffic safety measures be in place to minimize traffic disruptions during construction. Additionally, the Applicant would notify local emergency service providers at least 24 hours in advance of any lane or road closures on CR 27, providing details on timing, duration, and emergency contact information. Therefore, the impact related to the potential for hazardous conditions would be **less than significant**.

Criterion f) Whether the project would interfere with walking or bicycling accessibility: *Less than Significant.*

No pedestrian facilities or designated or proposed bicycle facilities exist along CR 27 where the Project is located. However, bicycle facilities exist perpendicular to CR 27, along CR 98 and CR 99. Cyclists traveling along CR 98 and CR 99 in the Project vicinity may encounter construction traffic entering and exiting work areas off CR 27. The Applicant would implement APM TRANS-1, which requires that traffic controls and other traffic safety measures be in place to maintain proper traffic flow during temporary construction activities affecting CR 27. Therefore, impacts related to walking or bicycling accessibility would be **less than significant**.

Criterion g) Whether the project would substantially delay public transit: *No Impact.*

As discussed previously, no public transit facilities exist along CR 27 where the Project is located. Therefore, the Project would not delay public transit, and **no impact** would occur.

3.17.5 References

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Yolo County. 2021. *Yolo County Community Services Department. Draft Initial Study/Mitigated Negative Declaration File #PW 2021-4589 County Road 98 Bike and Safety Improvement Project, Phase II.* June 2021.

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YoloTD (Yolo Transportation District). 2024c. *Yolo Transportation District Short Range Transportation Plan.* 2024. August 23, 2024. Available: https://storymaps.arcgis.com/stories/016fe9a5d00140d2b718d74dcf325a02/print. Accessed October 14, 2024.

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3.18 Tribal Cultural Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XVIII. TRIBAL CULTURAL RESOURCES —				
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:				
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	☐	☐	☒	☐
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.	☐	☐	☒	☐

3.18.1 Environmental Setting

This section examines the potential impacts of the Project related to tribal cultural resources. 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.*

Section 3.5, *Cultural Resources*, provides a summary of the prehistoric and ethnographic context of the study area and a summary of the cultural resource studies completed for the Project. Much of the background context and methods used for the analysis of potential Project impacts on tribal cultural resources and cultural resources are the same. Therefore, to avoid redundancy, the information presented in Section 3.5 is not repeated here.

On July 17, 2024, the Native American Heritage Commission (NAHC) provided a list of eight Native American representatives from four Tribes that may have knowledge of tribal cultural resources on the Project site or be interested in the Project: Cachil Dehe Band of Wintun Indians of the Colusa Indian Community; Cortina Rancheria–Kletsel Dehe Band of Wintun Indians; Grindstone Rancheria of Wintun-Wailaki; and Yocha Dehe Wintun Nation. The accompanying Sacred Lands File search was negative for sacred sites (NAHC 2024).

On August 13, 2024, the California Public Utilities Commission (CPUC) sent certified letters to the Native American representatives whose contact information was provided by the NAHC. These letters provided information on the Project and solicited input from the recipients.

The United Auburn Indian Community had previously notified the CPUC that they would like to be consulted on projects within 13 counties, including Yolo County, as per Assembly Bill 52. On August 12, 2024, the CPUC notified the United Auburn Indian Community by certified mail. The letter provided information on the Project and solicited comments and concerns (as defined in Public Resources Code [PRC] Section 21074) related to it.

No Tribes responded to the tribal consultation efforts within 30 days, and no responses have been received to date.

3.18.2 Regulatory Framework

3.18.2.1 Federal

No federal regulations specifically related to tribal cultural resources are applicable to the Project.

3.18.2.2 State

Native American Heritage Commission

The NAHC was created by statute in 1976. It is a nine-member body appointed by the governor to identify and catalog California's cultural resources (i.e., places of special religious or social significance to Native Americans and known graves and cemeteries of Native Americans on private lands). The NAHC is responsible for preserving and ensuring accessibility of sacred sites and burials, ensuring the disposition of Native American human remains and burial items, maintaining an inventory of Native American sacred sites located on public lands, and reviewing current administrative and statutory protections related to these sacred sites. Sacred lands documented in the NAHC's Sacred Lands File may constitute a tribal cultural resource. Additionally, the NAHC maintains a list of relevant Tribes and tribal representatives for consultation.

California Public Resources Code

Tribal Consultation (Assembly Bill 52)

In 2014, the California Legislature enacted Assembly Bill 52, which added provisions to the PRC regarding the evaluation of impacts on tribal cultural resources under CEQA, and requirements to consult with California Native American Tribes. In particular, Assembly Bill 52 requires lead agencies to analyze project impacts on tribal cultural resources separately from archaeological resources (PRC Sections 21074 and 21083.09). Assembly Bill 52 defines "tribal cultural resources" in PRC Section 21074 and requires lead agencies to engage in additional consultation procedures with respect to California Native American Tribes (PRC Sections 21080.3.1, 21080.3.2, and 21082.3).

Specifically, PRC Section 21084.3 states the following:

a) Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.

b) If the lead agency determines that a project may cause a substantial adverse change to a tribal cultural resource, and measures are not otherwise identified in the consultation process provided in Section 21080.3.2, the following are examples of mitigation measures that, if feasible, may be considered to avoid or minimize the significant adverse impacts:

1) *Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.*
2) *Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:*
   (A) Protecting the cultural character and integrity of the resource.
   (B) Protecting the traditional use of the resource.
   (C) Protecting the confidentiality of the resource.
3) *Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.*
4) *Protecting the resource.*

Assembly Bill 52–compliant tribal consultation is required to determine whether there are tribal cultural resources that may be affected by a project.

Sections 5097.98 and 5097.99 (Discovery)

PRC Section 5097.98 (reiterated in CEQA Guidelines Section 15064.5[e]) identifies the steps to follow in the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery. PRC Section 5097.99 prohibits obtaining or possessing any Native American artifacts or human remains that are taken from a Native American grave or cairn (stone burial mound). If Native American human remains are identified during Project construction or operation, this regulation would apply.

California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 protects human remains by prohibiting the disinterment, disturbance, or removal of human remains from any location other than a dedicated cemetery. If human remains are identified during Project construction or operation, this regulation would apply.

3.18.2.3 Local

Yolo County has created a conservation policy framework and implementation programs. For a full description of these policies and programs, see Section 3.5, *Cultural Resources*.

3.18.3 Applicant-Proposed Measures

In addition to the measures identified in Section 3.5, *Cultural Resources*, PG&E would implement the following Applicant-proposed measure (APM):

- **APM TCR-1: Undiscovered Potential Tribal Cultural Resources.** The following procedure shall be employed (after stopping work and following the procedure for determining eligibility in APM CUL-1) if a resource is encountered and determined by the project's qualified archaeologist to be potentially eligible for the California Register [California Register of Historical Resources] 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:

- The PG&E Cultural Resource Specialist 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.
- The PG&E Cultural Resource Specialist 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 [tribal cultural resource].

3.18.4 Environmental Impacts

3.18.4.1 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 (PRC Sections 21080.3.1, 21084.2, and 21084.3). The significance of a tribal cultural resource is assessed by evaluating the following:

(1) Its eligibility for listing on the California Register.

(2) Its eligibility as a unique archaeological resource pursuant to PRC Section 21083.2.

(3) Its listing status on the NAHC's Sacred Lands File.

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. The following analysis uses the criteria from Appendix G of the CEQA Guidelines to identify direct and indirect effects on tribal cultural resources.

3.18.5 Direct and Indirect Effects

Criterion ai) Whether the Project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 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 listed or eligible for listing in the California Register, or in a local register of historical resources as defined in PRC Section 5020.1(k): *Less-than-Significant Impact.*

No tribal cultural resources, as defined in PRC Section 21074, have been identified on the Project site through the California Historical Resources Information System (File No. 20-2594), a search of the NAHC's Sacred Lands File, a pedestrian survey, and Native American consultation. Therefore, the Project is not anticipated to affect any tribal cultural resources listed or eligible for listing in the California Register or a local register of historical resources.

However, if any previously unrecorded archaeological resources are identified during Project construction–related ground-disturbing activities and are found to qualify as a tribal cultural resource pursuant to PRC Section 21074(a)(1) (determined to be eligible for listing in the California Register or a local register of historical resources), any impacts of the Project on the resource could be potentially significant.

To help reduce potential impacts on undocumented archaeological resources that could qualify as tribal cultural resources, the Applicant proposes to implement APM TCR-1 in addition to the measures identified in Section 3.5, *Cultural Resources*. The additional measures are APM CUL-1 (Inadvertent Discoveries), APM CUL-2 (Human Remains), APM CUL-3 (Survey New or Modified Work Areas), and APM CUL-4 (Worker Education Training). These additional measures require the implementation of worker environmental awareness training for cultural resources and the consideration of avoidance, recovery, and documentation of any identified resources or human remains.

Operation and maintenance of the Project would not affect tribal cultural resources because no ground disturbance would occur at depths greater than those reached during construction.

Therefore, implementing APMs CUL-1, CUL-2, CUL-3, CUL-4, and TCR-1 would reduce substantial adverse changes in the significance of a tribal cultural resource pursuant to Section 15064.5 to below the level of significance. The associated impact would be **less than significant**.

Mitigation: None required.

Criterion aii) Whether the Project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 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 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 PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe: *Less-than-Significant Impact.*

No tribal cultural resources, as defined in PRC Section 21074, were identified in the Project area through the California Historical Resources Information System (File No. 20-2594), a search of the NAHC Sacred Lands File, a pedestrian survey, and Native American consultation. Therefore, the Project is not anticipated to affect any tribal cultural resources determined by the CPUC to be significant pursuant to PRC Section 5024.1(c).

However, if any previously unrecorded archaeological resources are identified during Project construction–related ground-disturbing activities and are found to qualify as a tribal cultural resource pursuant to PRC Section 21074(a)(1) (determined to be eligible for listing in the California Register or in a local register of historical resources), any impacts of the Project on the resource could be potentially significant.

To help reduce potential impacts on undocumented archaeological resources that could qualify as tribal cultural resources, PG&E has proposed the implementation of APM TCR-1 in addition to the measures

identified in Section 3.5, *Cultural Resources* (APM CUL-1, APM CUL-2, APM CUL-3, and APM CUL-4), which require the implementation of worker environmental awareness training for cultural resources and consideration of avoidance, recovery, and documentation of any identified resources or human remains.

Operation and maintenance of the Project would not affect tribal cultural resources because no ground disturbance would occur at depths greater than those reached during construction.

Therefore, implementing APMs CUL-1, CUL-2, CUL-3, CUL-4, and TCR-1 would reduce any substantial adverse changes in the significance of a tribal cultural resource pursuant to Section 15064.5 to below the level of significance. The associated impact would be **less than significant**.

Mitigation: None required.

3.18.6 References

NAHC (Native American Heritage Commission). 2024. Letter to Caleb Riley, Environmental Science Associates, from Pricilla Torres-Fuentes. "Re: D201900517.02 CPUC Plainfield Substation Project, Yolo County." July 17, 2024.

3.19 Utilities and Service Systems

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XIX. 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, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☒	☐	☐
f) Would the project increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts?	☐	☐	☐	☒

3.19.1 Environmental Setting

For the purposes of this analysis, the study area is defined as the Yolo County service areas for all relevant utility and service systems. Relevant utility and service systems for the Project include water supply, wastewater, stormwater, solid waste disposal, gas and electrical, and telecommunication utilities.

3.19.1.1 Electrical Power and Natural Gas

Power in Yolo County is generated from a variety of sources, such as fossil fuels, natural gas fields, hydroelectric facilities, solar energy, hydrogen fuels, and biofuels. PG&E provides Yolo County with electrical and natural gas utility services. Two major north-south transmission line corridors run through the county: one runs along the Dunnigan Hills and Interstate 505 and the other runs along the Yolo Bypass (Yolo County 2009). The Dunnigan Hills and Interstate 505 corridor is the closest to the Project site.

Throughout the county, natural gas is actively produced by 25 gas fields. The primary natural gas transmission line is aligned along the Capay Hills, approximately 25 miles northwest of the Project site, and brings in natural gas from the northwestern United States and western Canada (Yolo County 2009). No gas lines are known to exist within or in the vicinity of the Project site.

3.19.1.2 Telecommunications

AT&T is the primary provider of landline telephone services throughout the county. Cable TV providers include Wave (Astound Broadband), Comcast, and Cableview Communications (Yolo County 2009). Telecommunications at the Project site include two copper wires and a fiber optic line, provided by Wave,

beneath County Road 27. Existing telecommunications are described further in Section 2.5.1.8, *Telecommunication Lines*. No telecommunication services or facilities are adjacent to the Project site. The closest service providers—AT&T, Wave, Comcast, and T-Mobile—are located in the cities of Woodland and Davis.

3.19.1.3 Water Services

No water lines are known to exist within the Project vicinity.

3.19.1.4 Stormwater

Stormwater drainage facilities are limited in unincorporated Yolo County. On-site ditches that convey water to existing roadside ditches are used mostly for agricultural land uses. Stormwater in unincorporated areas is collected in pipes throughout the county and drains into Cache Creek. Presently, stormwater drainage in unincorporated Yolo County is serviced by the Planning and Public Works Department. Throughout unincorporated areas of Yolo County, stormwater collects in roadside swales and low spots, draining into various sloughs and irrigation ditches (Yolo County 2009). As discussed in Section 2.5.1.9, *Stormwater*, stormwater runoff within the existing Plainfield Substation drains primarily into two separate Spill Prevention, Control, and Countermeasure skimmer/weirs located along the northeast corner of the substation.

3.19.1.5 Wastewater Services

A variety of municipal wastewater systems serve Yolo County cities and towns. Most wastewater systems in unincorporated parts of the county consist of private and individual on-site septic systems. Community systems in unincorporated Yolo County are managed by County service areas or community service districts, which are managed by the County board of supervisors and independently elected boards of directors, respectively. Whether it is treated by municipal, private, or community facilities, treated wastewater is most commonly disposed of through discharge to a water body, evaporation or percolation, or irrigation of farmland and ornamental landscaping. Residual solids for most municipal and community wastewater systems are disposed of at the Yolo County Central Landfill (Central Landfill) (Yolo County 2009). Plainfield and unincorporated areas in the county use private and individual septic systems; however, no water, gas, or sewer lines are known to exist within the Project vicinity.

3.19.1.6 Solid Waste and Recycling Services

Yolo County has two public facilities for both solid waste and recycling and one solid waste facility that does not allow public access. The Central Landfill is closest to the Project site. The facility is a Class III[13] solid waste landfill that provides municipal solid waste disposal, recycling, salvaging, and management of household and business hazardous wastes. The Central Landfill has a maximum permitted capacity of 49,035,200 tons. The maximum permitted throughput is 3,000 tons per day. Remaining capacity at the landfill (as of 2022) was 33,140,373 tons (CalRecycle 2024a). The composting facility at the Central Landfill is permitted to handle 1,000 tons per day of green materials and food waste (CalRecycle 2024b).

[13] *Class III landfills* are non-commercial landfills that accept non-hazardous waste such as household, commercial, and industrial waste. Class III landfills are permitted and regulated by state agencies.

The Central Landfill also contains a 10-acre, large-volume construction demolition debris processing facility, with a maximum permitted throughput of 500 tons per day (CalRecycle 2024c).

Yolo County does not provide waste and recycling collection services, but rather has franchise agreements with Waste Management of Woodland and Davis Waste Removal to serve most communities and businesses in the unincorporated county.

3.19.2 Regulatory Framework

3.19.2.1 Federal

No federal regulations related to utilities and service systems are applicable to the Project.

3.19.2.2 State

California Government Code Section 4216

Section 4216 requires state and local agencies to contact a regional notification center before excavating for subsurface installations to identify and protect existing underground infrastructure such as pipelines, conduits, ducts, or wires. Under this law, excavators must delineate the planned excavation site and contact their regional notification center at least 2 working days before excavations. The Project site's regional notification center is Underground Service Alert North 811. Underground Service Alert notifies utility providers of underground installations within 1,000 feet of planned excavation.

California Integrated Waste Management Act

California's Integrated Waste Management (Assembly Bill 939; Public Resources Code Section 40050 et seq.) requires each jurisdiction in the state to divert at least 50 percent of its waste away from landfills through either waste reduction or recycling. The California Department of Resources Recycling and Recovery oversees and assists local governments in their development and implementation of plans to meet the law's mandates and subsequent legislation (CalRecycle 2025).

California Code of Regulations Division 4.5, Title 22

California Code of Regulations Title 22 contains an array of standards and requirements for the identification, collection, transport, disposal, and recycling of hazardous and universal wastes. *Universal wastes* are defined as those wastes identified in California Code of Regulations Title 22, Section 66273.9, including batteries, electronic devices, mercury-containing equipment, lamps, cathode ray tubes, and aerosol cans. Requirements include recycling, recovery, the return of spent items to the manufacturer, or disposal at an appropriately permitted facility. Title 22, Division 4.5 also provides restrictions and standards relevant to waste destination facilities and provides authorization requirements for various waste handlers. Title 22 includes California's Universal Waste Rule and other additional waste handling and disposal requirements.

California Code of Regulations Title 27

California Code of Regulations Title 27 defines regulations for the treatment, storage, processing, and disposal of solid waste. The State Water Resources Control Board maintains and regulates compliance with Title 27. The Project's compliance would be enforced by the Central Valley Regional Water Quality Control Board (Region 5).

California Public Utilities Commission General Order 131-D

California Public Utilities Commission (CPUC) General Order 131-D outlines the rules for permitting and construction of electrical transmission lines, power lines, distribution lines, substations, and generation facilities in California. The General Order determines conditions under which CPUC approval is required, depending on whether the Project concerns new or existing infrastructure. The General Order requires a permit to construct for electric substations designed for immediate or eventual operation at any voltage between 50 and 200 kilovolts.

3.19.2.3 Local

Pursuant to CPUC General Order 131-D (noted above), the CPUC has exclusive jurisdiction over the siting, design, and construction of the Project; therefore, the Project is not subject to local discretionary regulations. Details that relate to local regulations are provided below for informational purposes.

Yolo County Code of Ordinances Title 6, Chapter 16

Under California law pursuant to the California Waste Management Act, Yolo County is required to implement source reduction and recycling to make substantial reductions in the volume of waste going to landfills. Yolo County Code Title 6, Chapter 16 (Recycling and Diversion of Debris from Construction and Demolition) is applicable to the construction of new agricultural, commercial, industrial, or institutional buildings 5,000 square feet or larger and to the renovation, addition, or alteration of any agricultural, commercial, industrial, institutional, or multi-family building larger than 1,000 square feet (among other construction and demolition projects). Such projects would be required to divert 50 percent of construction and demolition debris through recycling, reuse, or diversion programs. Section 6-16.04 stipulates project types that qualify for exemptions from the diversion requirements. For example, demolition performed in conjunction with an emergency or one where demolition of a structure or a portion of a structure that is less than 1,500 square feet (among others) would be exempt from the ordinance requirements. For non-exempt projects, the County requires contractors to submit reports to verify the diversion activities (Yolo County 2024).

Yolo County 2030 Countywide General Plan

The following General Plan goals and policies are potentially relevant to the Project's public facilities and services (Yolo County 2009):

> **Goal PF-2: Stormwater Management.** Provide efficient and sustainable stormwater management to reduce local flooding in existing and planned uses.
>
> > ***Policy PF-2.1:*** Improve stormwater runoff quality and reduce impacts to groundwater and surface water resources.
> >
> > ***Policy PF-2.2:*** Construct on-site stormwater detention facilities that are designed so that runoff from the 100-year storm event does not: (1) result in an increase in peak release rate; (2) result in a time decrease associated with the time of concentration; (3) contribute to adjacent flood problems; and/or (4) significantly alter the direction of runoff.
> >
> > ***Policy PF 2.3:*** Design new stormwater facilities to enhance recreational, habitat, and/or aesthetic benefits, as well as integrate with existing parks and open space features.

Policy PF 2.4: Encourage sustainable practices for stormwater management that provide for groundwater recharge and/or improve the quality of runoff through biological filtering and environmental restoration.

Goal PF-9: Solid Waste and Recycling. Provide safe, cost-efficient, and environmentally responsible solid waste management.

Policy PF-9.1: Meet or exceed State waste diversion requirements.

Policy PF-9.3: Employ innovative strategies to ensure efficient and cost-effective solid waste and other discarded materials collection, disposal, transfer, and processing.

Policy PF-9.8: Require salvage, reuse, or recycling of construction and demolition materials and debris at all construction sites.

Policy PF-9.9: Encourage use of salvaged and recycled materials in construction.

Goal PF-11: Utilities and Communications. Support a flexible network of utility services to sustain state-of-the-art community livability and economic growth.

Policy PF-11.5: Increase the availability and reliability of power to the rural areas, including underserved communities.

3.19.3 Applicant-Proposed Measures

Applicant-proposed measures related to utilities and service systems have not been identified by PG&E. However, **APM BIO-5**, as described in Table 2-10, would direct the preparation of a stormwater pollution prevention plan.

3.19.4 Environmental Impacts

3.19.4.1 Methodology and Assumptions

The following discussion describes the criteria for determining the significance of impacts on utilities and service systems derived from Appendix G of the CEQA Guidelines and the CPUC Guidelines for Energy Project Applications Requiring CEQA Compliance. The criteria are used to identify direct and indirect effects on utilities and service systems from Project construction and operation. The analysis assumes implementation of the Applicant-proposed measure BIO-5 described above.

3.19.4.2 Direct and Indirect Effects

Criterion a) Whether the project would require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects: *Less-than-Significant Impact.*

The Project would not require or result in new or expanded water, wastewater treatment, or natural gas facilities or services. Therefore, **no impact** on these utilities and service systems would occur. Potential impacts of the Project related to stormwater, telecommunications facilities, and electric power are described below.

Stormwater

As described in Chapter 2, *Project Description*, a new stormwater retention pond would be constructed on the eastern side of the Project site after grading activities. The retention pond would measure approximately 60 feet long by 320 feet wide with a depth of approximately 3 feet and would remain unlined to enable natural infiltration and groundwater recharge. Stormwater runoff at the expanded substation site would be directed to the new retention pond via a system of two swales within the substation. The swales would be approximately 6 inches deep and lined with concrete, and would extend from the interior road within the substation yard to the retention pond.

During operation and maintenance (O&M) of the completed Project, the retention pond would have an overflow structure using a high-density polyethylene pipe, which would drain to the roadside ditch on the south side of County Road 27. Drainage from the retention pond into the roadside ditch would only occur during a storm event that is greater than the County's stormwater design requirements. Additionally, to ensure that the pipe would drain only water from the retention pond to the roadside ditch, the pipe would have a backflow preventer. Water collected in the roadside ditch would not be able to drain into the retention pond.

The expanded stormwater drainage proposed as part of the Project would be designed to contain silt and sediment and slow the percolation of water during a storm event, consistent with County standards. As discussed in Section 3.4, *Biological Resources*, the Project is not proposed on lands that contain high-quality habitat for special-status species. This Project component would not result in an ongoing or significant impact. Impacts of the stormwater retention pond would be **less than significant**.

Telecommunications

As part of the substation expansion, the existing fiber optic line within the Project site would be rerouted to a new modular protection automation and control enclosure located approximately 200 feet east of the current enclosure. PG&E would install a new concrete vault within the substation yard at the point where the existing fiber optic line enters the existing conduit beneath County Road 27. From the vault, the extended fiber optic line would be run through a new 3-inch conduit to the new modular protection automation and control enclosure. The conduit would be buried 1 foot underground. Concrete caps would be added in areas where the conduit crosses under a roadway within the substation at a depth of less than 2.5 feet. All telecommunication upgrades would occur within the substation yard, on previously disturbed land, and would not lead to potentially significant environmental effects; therefore, this impact would be **less than significant**.

Electric Power

The Project would add two 5-megavolt ampere reactive power capacitor banks and associated equipment to the existing substation, with the goal of boosting the voltage levels within acceptable ranges as specified by North American Electric Reliability Corporation standards. The new capacitor banks would improve voltage stability and eliminate low-voltage violations on the 60-kilovolt power lines. The Project would not create a second system tie or loop for reliability. To minimize electric service disruptions, the process of de-energizing and re-energizing the existing lines may be conducted at night when demand is lower. The proposed substation expansion would not result in additional new or expanded electric power services that could lead to significant environmental effects not already analyzed as part of the Project; therefore, the impact related to electric power would be **less than significant**.

Criterion b) Whether the project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years: *No Impact.*

In general, water requirements in the majority of the Sacramento River Hydrologic Region can be met in normal water years, but shortages can occur during dry years. Water demands in Yolo County total about 924,000 acre-feet per year (af/yr) in average-year types, with annual water demand totaling approximately 875,000 af/yr for agriculture and urban water demand totaling 49,000 af/yr. Annual surface water supplies total 600,000 af/yr and less than 10,000 af/yr for agriculture and urban uses, respectively (Sacramento Valley IRWMP 2006).

During construction, the Project would require water for short-term needs such as dust control, construction of footings and foundations, and other purposes, such as compaction or worker needs. A water truck would be available to support construction activities and dust suppression as needed during the construction period. The estimated volume of water required for Project construction is 7.2 acre-feet (2.3 million gallons), which would amount to approximately two water trucks used at the Project site 5 days a week during the 18- to 21-month construction period. Should reclaimed or recycled water not be readily available, water would be sourced from municipal sources, including the city of Davis or Woodland or a nearby PG&E facility. The amount of water needed for Project construction would be negligible compared to overall water demand in Yolo County. Therefore, Project construction would have a negligible effect on water supplies available to serve the construction activities, and **no impact** would occur.

Once constructed, the substation would not require ongoing water resources. Water use during Project O&M would be similar to existing conditions. The Plainfield Substation would not use water for cooling or other operational purposes. No additional infrastructure requiring water, such as plumbing, is proposed or would be required as part of the Project. Drinking water would be brought in by the Applicant's personnel during periodic O&M activities. This water use would be negligible and water could be provided through local municipal resources during normal, dry, and multiple dry years. O&M activities would be substantially similar to O&M of existing facilities and would not result in an increased water demand. Therefore, **no impact** would occur.

Criterion c) Whether the project would 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.*

During construction, small volumes of sanitary wastewater would be generated from self-contained portable toilets for a limited time (up to 21 months of construction), which would be routinely pumped as needed. Sanitary waste would be transported by licensed sanitary waste services for off-site treatment and disposal. O&M of the completed Project would not require on-site staffing on a regular basis. The Project would not result in new or expanded sanitary waste facilities or services. Because the Project would not require the ongoing use of wastewater treatment, capacity exceedances would not occur, and **no impact** would occur.

Criterion d) Whether the project would 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.*

Solid waste from the Project would be generated primarily during construction. Approximately 19 tons of general solid waste would be generated during construction. Debris would be collected at the substation site and deposited in on-site containers that would be transported off-site periodically for proper disposal. The Central Landfill is the closest waste facility, approximately 8 miles east of the Project site, and has a capacity of 10 million tons. The landfill accepts a wide range of materials such as soil and metal scrap. It offers recycling services for metal scrap and mixed recyclables. Solid waste generated by the construction workforce would consist of food waste, glass, paper, plastic, and packaging materials. Salvageable construction debris, such as usable conductor, steel, and hardware, would be sent to recycling facilities or stored for reuse at a nearby PG&E facility. Recyclable items may include scrap metal/ damaged steel from pole assemblies, conductor segments, conductor reels, pallets, and broken hardware. Waste that cannot be recycled or reused may include wood, soil, vegetation, and sanitation waste, and would be transported to waste management facilities for composting or proper disposal. Solid waste generated during construction would be collected and stored in a staging area; recyclable and non-recyclable waste would be sorted and stored separately.

Solid waste generated during site preparation would include asphalt, steel, vegetation, soil, and fencing. Two culverts in the roadside ditch on the south side of County Road 27 and approximately 1,500 square feet of asphalt within the existing entrance would be removed from the Project site, and would result in the recycling of approximately 0.1 cubic yard of corrugated steel and 222 cubic yards of asphalt. Additional waste would include an estimated 800 feet of chain-link fence material, which would be removed and recycled. Vegetation, such as ruderal vegetation and row crops, is estimated to generate 114 cubic yards of agricultural and green waste, and approximately 16,060 cubic yards of soil would be hauled off-site for disposal.

As discussed in Section 3.19.1, *Environmental Setting*, the Central Landfill has a remaining capacity of 33,140,373 tons (as of 2022). Facilities for construction demolition debris and green waste are available to accommodate the estimated 19 tons of solid waste that would be generated during the Project's construction. The Project's estimated 19 tons of solid waste generated during construction would not exceed the capacity of the Central Landfill or otherwise impair the attainment of solid waste reduction goals. Moreover, the landfill contains facilities to accommodate various types of solid waste including vegetative and construction demolition debris, as discussed below. Therefore, the impact would be **less than significant**.

Criterion e) Whether the project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste: *Less than Significant with Mitigation.*

As discussed under Criterion d), the Project would generate an estimated 19 tons of waste during construction and a negligible amount of solid waste during O&M. Construction waste and debris would include disposal of a limited amount of materials that would not be recycled or reused. Solid waste would be transported off-site and disposed of at approved disposal facilities or recycling centers.

As discussed in Section 3.19.2, *Regulatory Framework*, the Project would be subject to state requirements for diversion of construction demolition debris. Yolo County Code of Ordinances Title 6, Chapter 16 implements the state requirements locally, requiring that a minimum of 50 percent of the solid waste materials generated by Project construction be recycled, reused, or otherwise diverted from the landfill. Because PG&E has not identified the proportion of the estimated 19 tons of solid waste generated during construction that would be targeted for recycling, reuse, or diversion, the impact related to solid waste reduction regulatory conflicts would be **potentially significant**.

To achieve compliance with state and County requirements, PG&E would be required to quantify and report the amount of solid waste generated and demonstrate 50 percent diversion from the landfill. Should the Project qualify for an exemption from this requirement, documentation would be required. To ensure that the Project is compliant with state and local requirements with respect to solid waste diversion, mitigation would be required. With implementation of the mitigation measure or documentation of an exemption from Yolo County, the impact would be reduced to a **less-than-significant** level.

Mitigation Measure US-1: Solid Waste Diversion Plan

The Applicant shall prepare and submit a diversion plan to the CPUC and Yolo County for review and approval before the start of construction. The solid waste diversion plan will outline how the Applicant will sort, measure, and record the disposal of solid waste to ensure that 50 percent of inert materials will be recycled, reused, or otherwise diverted from the landfill. The plan will detail reporting requirements to the CPUC and Yolo County. Measures in the plan will include but not be limited to the following:

- Provision of space and/or bins for appropriate storage of recyclable materials on-site.
- Establishment of a recyclable materials pick-up area.
- Development of a recordation system that details and quantifies the amount of solid waste generated during construction, solid waste recycled, and solid waste delivered to the solid waste disposal facility.

If it is determined, through consultation with Yolo County, that PG&E's proposed construction activities are exempt or otherwise not subject to the County's solid waste diversion requirements, documentation of the consultation shall be provided to CPUC in lieu of the mitigation measure's solid waste diversion plan and reporting requirements.

Significance after Mitigation: Less than Significant.

Criterion f) Whether the project would increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts: *No Impact.*

There are no adjacent utility lines that could experience corrosion from Project construction and O&M. Therefore, **no impact** would occur.

3.19.5 References

CalRecycle (California Department of Resources Recycling and Recovery). 2024a. Solid Waste Information System Facility/Site Activity Details: Yolo County Central Landfill Solid Waste Landfill. Available: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/689?siteID=4033. Accessed October 24, 2024.

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CalRecycle (California Department of Resources Recycling and Recovery). 2025. Enforcement California Integrated Waste Management Act. Available: https://calrecycle.ca.gov/LGCentral/Enforcement/. Accessed January 7, 2025.

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Yolo County. 2009. *County of Yolo 2030 Countywide General Plan*. Planning and Public Works Department. Available: https://www.yolocounty.gov/government/general-government-departments/county-administrator/general-plan/adopted-general-plan. Accessed October 2, 2024.

Yolo County. 2024. *Attachment A: Ordinance 1375, An Ordinance of the Board of Supervisors of Yolo County Adding Chapter 16 to Title 6 of the Yolo County Code Regarding Construction and Demolition Debris Recycling and Diversion.* Available: https://www.yolocounty.gov/home/showpublisheddocument/56697/636851226951700000. Accessed October 24, 2024.

3.20 Wildfire

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XX. 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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

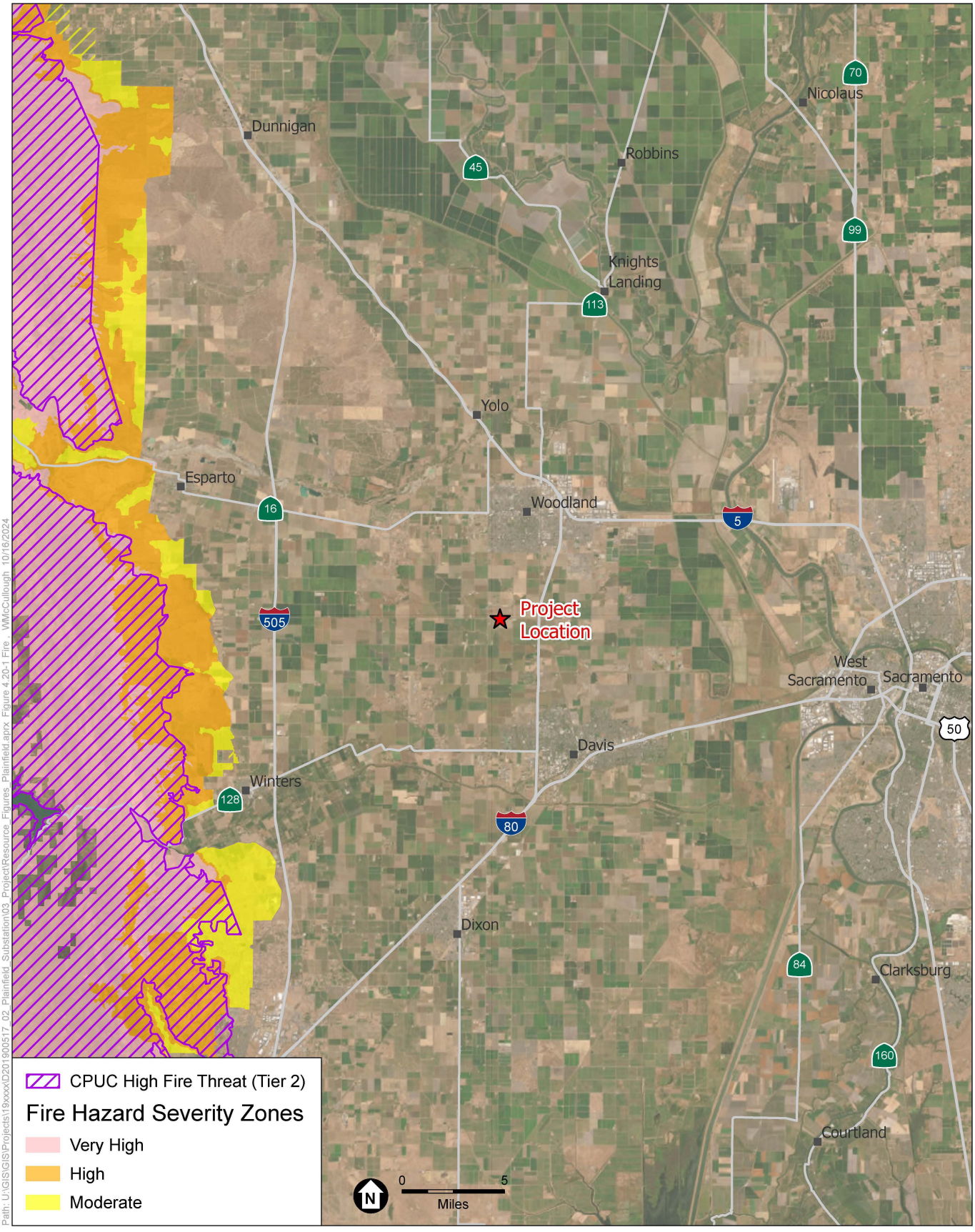
This section identifies and evaluates impacts related to wildfire in the context of the Project. The analysis includes the physical and regulatory setting, the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment. The Project site is not located in an area identified as a high fire threat area by the California Department of Forestry and Fire Protection (CAL FIRE) or the California Public Utilities Commission (CPUC), as described below in Section 3.20.2, *Regulatory Setting*. See **Figure 3.20-1**, ***Fire Hazard Severity Zones***, which depicts the Fire Hazard Severity Zones (FHSZs) and CPUC high fire threat areas near the Project site. Additionally, the Applicant would implement fire prevention practices, such as Applicant-proposed measure (APM) FIRE-1, discussed further below in Section 3.20.3, *Applicant-Proposed Measures*, and included in this analysis as part of the Project.

3.20.1 Environmental Setting

Wildfire behavior is dependent upon fuels (e.g., vegetation), weather (e.g., wind, temperature, and humidity), and topography (e.g., slope, elevation, and aspect). The combination of these factors, as described below, influences the degree of risk if a fire occurs.

3.20.1.1 Topography

Topography describes the shape of the land and can include descriptions of elevation (height above sea level), slope (the steepness of the land), aspect (the direction a slope faces), and features such as canyons and valleys. Topography can strongly influence fire behavior, including the speed at which a fire moves through an area. For example, fire typically moves more quickly when it travels uphill than when it travels either downhill or across flat terrain. As heat rises in front of a fire, it preheats and dries upslope fuels, resulting in their rapid combustion (Bennett 2017). The topography of the Project site is flat, agricultural land with several ditches that contain slopes with ruderal habitat (PG&E 2024a).



Source: ESA, 2024; CalFire, 2024; CPUC, 2024

Plainfield Substation Upgrade Project

Figure 3.20-1
Fire Hazard Classifications

ESA

3.20.1.2 Vegetation/Fuels

Fuel is the material that feeds a fire and is a key factor in wildfire behavior. Fuel sources are diverse and include dead tree leaves, twigs, branches, and standing trees; live trees and brush; and dry grasses. Additional fuel sources can include human-made structures such as homes, buildings, and other associated combustible materials. The amount of fuel—known as *fuel loading* and expressed in tons per acre—and its vertical and horizontal arrangement affect fire intensity and the ability of surface flames to spread. The size and the moisture and chemical content of fuels also influence combustion and fire behavior (Bennett 2017).

Vegetation on the Project site is minimal, consisting primarily of agricultural row crops, depending on the time of year, and can be fallow. Ruderal vegetation also exists within the Project site and includes non-native species such as wild radish, broad-leafed pepperweed, Italian ryegrass, milk thistle, curly dock, common mallow, cranesbill, cheeseweed, bromes, oats, and devil's claw (Appendix C, *Biological Resources*). None of these vegetation classifications pose a significant risk to fire fuel on the Project site.

3.20.1.3 Weather/Climate

Weather conditions such as wind, temperature, and humidity also contribute to fire behavior. Fuels located in hotter and drier temperatures are more susceptible to ignition and catch fire more readily than fuels located in moister and/or cooler temperature conditions. The weather at the Project site is consistent with typical weather for Yolo County, with a Mediterranean climate characterized by hot, dry summers and temperate, wet winters (Yolo County 2023).

3.20.1.4 Fire History

Wildfire danger varies throughout Yolo County. Most wildfires in the county are quickly contained as a result of rapid reporting and response; however, if this first effort fails, a wildfire can rapidly become very large, depending on the site and weather conditions. Such fires can require extensive firebreaks and/or a weather change for containment.

Several notable wildfires have burned in Yolo County in the past 10 years, including the Monticello Fire (2014), Wragg Fire (2015), Rocky Fire (2015), Jerusalem Fire (2015), Cold Fire (2016), and the Winters Fire (2017) (Yolo County 2023). However, all these fires occurred in western Yolo County, near Lake Berryessa. No major fires have occurred on or close to the Project site.

3.20.1.5 Wildfire and Air Quality

Wildfires emit volatile organic compounds, nitrogen oxides, and particulate matter, which present immediate health risks to populations. In addition, the dispersion of smoke from wildfires can cause these air pollutants to travel far from the origin. Wildfire smoke substantially raises levels of particulate matter less than or equal to 2.5 microns in diameter (commonly referred to as $PM_{2.5}$) and ozone, leading to air pollution metrics that exceed health standards (Jaffe and Lee 2024). Specifically, poor air quality and subsequent exposure to these pollutants can cause asthma attacks, coughing, and chest pain (CDC 2024).

3.20.2 Regulatory Setting

3.20.2.1 Federal

North American Electric Reliability Corporation Standards

The North American Electric Reliability Corporation (NERC) is a not-for-profit international regulatory authority comprising 10 regional reliability councils. The overarching goal of NERC is to ensure the reliability of the bulk power system in North America. To achieve its goal, NERC develops and enforces reliability standards, monitors the bulk power systems, and educates, trains, and certifies industry personnel.

The Project would be subject to NERC standards. To improve the reliability of regional electric transmission systems, and in response to a massive widespread power outage that occurred on the Eastern Seaboard, NERC developed a transmission vegetation management program that is applicable to all transmission lines operated at 200 kilovolts and higher, and to lower voltage lines designated by the Regional Reliability Organization as critical to the reliability of the electric system in the region (NERC 2020). The program applies to PG&E's transmission line–related vegetation management activities in the Project area such as NERC Standard FAC-003, Transmission Vegetation Management. These requirements include identifying and documenting clearances between vegetation and any overhead, ungrounded supply conductors, while considering transmission line voltage, the effects of ambient temperature on conductor sag under maximum design loading, fire risk, line terrain and elevation, and the effects of wind velocities on conductor sway.

3.20.2.2 State

California Department of Forestry and Fire Protection: Fire Hazards Severity Zones

California Public Resources Code Sections 4201–4204 require CAL FIRE to prepare fire hazard severity zone maps for all lands within State Responsibility Areas and to make recommendations for such zones in Local Responsibility Areas. CAL FIRE has published FHSZ maps for lands in State Responsibility Areas with ratings from Moderate to Very High. However, the Project would be located entirely on lands classified as Local Responsibility Areas. CAL FIRE only makes recommendations for Very High FHSZs, which cities and counties are encouraged to adopt into local plans.

The nearest mapped FHSZ in a State Responsibility Area is approximately 15 miles west of the Project site, where there is a mix of Moderate, High, and Very High FHSZ classifications (CAL FIRE 2023).

California Public Utilities Commission–Designated Wildfire Hazard Zones

Pursuant to its fire safety rulemaking, 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 below) would be implemented because of the elevated risk for power line fires. The CPUC High Fire Threat District Map identifies elevated risk for fires associated with utilities based on criteria such as fire hazards associated with historical power line–caused wildfires and current fuel conditions. The map scores geographic areas based on where fires start, as opposed to where potential fires may cause impacts. As shown in Figure 3.20-1, the Project site is not located in a CPUC-designated High Fire Threat District. The nearest High Fire Threat District is classified as Tier 2, approximately 16 miles west of the Project site.

Fire Protection Services

The Project site would be located in a designated Local Responsibility Area, as discussed above. Primary fire protection services in the vicinity of the Project site are provided by the Springlake Fire Protection District. As discussed in Section 3.15*, Public Services*, Springlake Fire Protection District serves the Project site and surrounding area. The nearest fire station is Station 2, approximately 3 miles north of the Project site.

Strategic Fire Plan for California

The CAL FIRE Strategic Plan 2024: Transforming Tomorrow, is CAL FIRE's most current 5-year strategic plan. It builds on the goals and objectives of the 2019 strategic plan. Developed by the State Board of Forestry and Fire Protection, the Strategic Fire Plan outlines goals and objectives to implement CAL FIRE's overall policy direction and vision. The 2024 plan demonstrates CAL FIRE's goals to (1) attract, hire, and retain quality employees, (2) ensure all employees understand how the Department's various programs and job duties contribute towards efficiently achieving the CAL FIRE mission, (3) promote a culture that values equitable access, embraces diverse backgrounds and experiences, and actively removes barriers to cultivate a more inclusive environment, (4) Leverage technology to modernize internal human resources processes and create efficient and effective innovative solutions to promote, support, and enhance the employee experience, (5) strengthen the Department's physical and digital infrastructure and streamline equitable access to information across core services, and (6) identify core capabilities and strengthen operational capacity (CAL FIRE 2024).

As outlined above, the Project site is located entirely within a Local Responsibility Area with no high fire hazard classifications. Thus, the Strategic Fire Plan would not be directly applicable to the Project but should be noted for the wildfire regulatory framework of the greater region.

California State Emergency Plan

Pursuant to the Emergency Services Act (Government Code Section 8550 et seq.), California has developed an emergency plan to coordinate emergency services provided by federal, state, and local government agencies and private persons. Rapid response to incidents involving wildfire and other natural and/or human-caused incidents is an important part of the plan. The California Governor's Office of Emergency Services administers the plan; it coordinates the responses of the U.S. Environmental Protection Agency, California Environmental Protection Agency, California Highway Patrol, California Department of Fish and Wildlife, regional water quality control boards, local air districts, and local agencies (Cal OES 2023).

The California State Emergency Plan plays a key role in guiding state agencies, local jurisdictions, and the public on emergency management. It describes methods for emergency operations, provision of mutual aid, emergency response capabilities of state agencies, resource mobilization, public information, and continuity of government during an emergency or disaster. Currently, the emergency plan is undergoing an update, which includes the following:

- An enhanced whole-community planning approach.
- An updated hazards discussion with new information on wildfires, earthquakes, pandemics, severe weather, Public Safety Power Shutoffs, and cyberattacks.

- Additional information on the Fire & Rescue Coordination Center, Air Coordination Group, and Medical and Health Coordination Center.
- Updated information on the Unified Coordination Group.
- An additional section on science and technology in emergency management.
- Updated state agency roles and responsibilities.
- Additional information on recovery support functions and the California Disaster Recovery Framework.

Public Resources Code Section 4291

Public Resources Code Section 4291 identifies fire safety provisions deemed necessary by the director or agency with primary responsibility for fire protection in the area. These regulations require maintaining defensible space during the fire hazard season; 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.

California Public Utilities Commission General Orders

General Order 95

Revised January 2020, this General Order outlines rules for construction of overhead electric lines. CPUC General Order 95 applies to work conducted by PG&E and the other investor-owned utilities, including the 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 has promulgated various rules to implement the fire safety requirements of General Order 95, including the following (CPUC 2020):

- **Rule 18A:** Requires utility companies to 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:** Requires that lines be inspected frequently and thoroughly. It also requires that lines temporarily out of service be inspected and maintained.
- **Rule 35:** Requires that vegetation management activities be performed to establish necessary and reasonable clearances. These requirements apply to all overhead electrical supply and communication facilities that are covered by this General Order. Specifically, this applies to communication and electric supply circuits, energized at 750 volts or less, which must be kept clear of vegetation in new construction and when circuits are reconstructed or repaired.
- **Rule 38:** Establishes minimum vertical, horizontal, and radial clearances of wires from other wires.

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, which are defined as a simple visual inspection of utility equipment and structures (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 5 years for all overhead conductor and cables, transformers, switching/protective devices,

and regulators/capacitors. By July 1 of each year, each utility subject to General Order 165 must submit an annual report of its inspections for the previous year under penalty of perjury (CPUC 2017a).

General Order 166

General Order 166 Standard 1.E requires each investor-owned utility, such as PG&E, to develop a fire prevention plan describing measures that the utility would implement to mitigate the threat of power line fires generally. Additionally, this standard requires that investor-owned utilities outline a plan to mitigate power line fires when wind conditions exceed the structural design standards of the line during a Red Flag Warning event in a high fire threat area. Fire prevention plans formulated by investor-owned utilities are required to identify specific parts of the utility's service territory where the conditions described above (i.e., Red Flag Warnings and high-wind events) may occur simultaneously. Standard 11 requires that utilities report annually to the CPUC regarding compliance with General Order 166 (CPUC 2017b).

General Order 174

The purpose of the rules in General Order 174 is to formulate uniform requirements for substation inspection programs to promote the safety of workers and the public and enable adequacy of service. Under this General Order, Section 3 establishes inspection program requirements, in which each operator must establish, update as needed, and follow an inspection program, retain these records, and submit them for annual reporting (CPUC 2024).

2022 California Fire Code

The most recent fire code, the 2022 California Fire Code, is contained within Title 24, Part 9 of the California Code of Regulations. Based on the International Fire Code, the California Fire Code was created by the California Building Standards Commission and regulates use, handling, and storage requirements for hazardous materials at fixed facilities. 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 Fire Code is an enforceable set of regulations consistent with nationally recognized and accepted practices for safeguarding life and property from the hazards of fire and explosion; dangerous conditions arising from the storage, handling, and use of hazardous materials and devices; and hazardous conditions in the use or occupancy of buildings or premises. It also contains provisions to assist emergency response personnel.

Pacific Gas and Electric Company Emergency Response Plan

Updated in 2019, the PG&E Company Emergency Response Plan assists PG&E personnel with safe, efficient, and coordinated response to emergency incidents involving gas or electric generation, distribution, storage, and/or transmission systems. The Company Emergency Response Plan applies to PG&E's service territory and the people who work in those systems. This all-hazards approach applies to any natural disaster or human-caused situation (e.g., fires, floods, storms, earthquakes, terrorist attack, or cyberattack) that threatens life and property or requires immediate action to protect or restore service or critical business functions to the public. The Company Emergency Response Plan also outlines the operational structure, which includes a Wildfire Safety Operations Center that operates 24 hours a day during wildfire season (PG&E 2019).

Pacific Gas and Electric Company Wildfire Mitigation Plan

Updated in April 2024, this plan outlines PG&E's Community Wildfire Safety Program, with the overarching goals to reduce ignition risk, improve operational mitigations such as Public Safety Power Shutoffs, and improve system resilience. In this updated plan, PG&E employs strategies to aggressively reduce wildfire risk in the High Fire Threat Districts and High Fire Risk Areas through undergrounding, updating management and mitigation planning, and addressing vegetation risk more efficiently through new risk-informed mitigation initiatives (PG&E 2024b).

3.20.2.3 Local

Yolo County General Plan

The Public Facilities Element of the Yolo County General Plan outlines Yolo County's policy guidance to ensure that infrastructure and services will be sufficient to support existing and new development within the county. These planning strategies related to wildfire include emergency management and response and fire hazards. The following goal and policies related to fire hazards are relevant to the Project (Yolo County 2009a):

> **Goal PF-5:** Fire and Emergency Medical Services. Support fire and emergency service providers to enhance the protection of life and property.
>
> > ***Policy PF-5.9*:** The County shall require, and applicants must provide, a will-serve letter from the appropriate fire district/department confirming the ability to provide fire protection services to the project, prior to each phase.
> >
> > ***Policy PF-5.10*:** Reduce vegetation and other wildland fuels on County-owned land within the State Responsibility Area to reduce the intensity of fires, consistent with biological, scenic, and recreational considerations.
> >
> > ***Policy PF-5.11***: Incorporate fire infrastructure elements into County roads within the State Responsibility Area where feasible, such as turn-outs, helispots, and safety zones.

Additionally, the Health and Safety Element of the Yolo County General Plan ensures that appropriate consideration of both natural and human-made hazards and risks are factored into land use decision-making. This element identifies the following goal and policies related to wildfire that are relevant to the Project (Yolo County 2009b):

> **Goal HS-3:** Wildland Fires. Protect the public and reduce damage to property from wildfire hazard.
>
> > ***Policy HS-3.1*:** Manage the development review process to protect people, structures, and personal property from unreasonable risk from wildland fires.
> >
> > ***Policy HS-3.2*:** Encourage well-organized and efficient coordination between fire agencies and the County.
> >
> > ***Policy HS-3.3*:** Clearly communicate the risks, requirements, and options available to those who own land and live in wildfire hazard areas.

2023 Yolo County Operational Area Multi-Jurisdictional Hazard Mitigation Plan

The Yolo County Operational Area Multi-Jurisdictional Hazard Mitigation Plan outlines the hazard risks and vulnerabilities for the Yolo County Operational Area and identifies mitigation projects and actions to help reduce those risks. The purpose is to reduce or eliminate any long-term risk to people and property from hazards such as floods, wildfires, severe weather, drought, and agricultural hazards that could have a significant impact within the county. The plan recommends mitigation actions such as emergency plans or evacuation routes to reduce the county's vulnerability to hazardous events (Yolo County 2023).

2024 County of Yolo Emergency Operations Plan

Yolo County, along with the Cities of West Sacramento, Davis, Woodland, and Winters and special districts, crafted an emergency operations plan to ensure the efficient and effective allocation of resources to protect people and property during emergencies or disasters. The County of Yolo Emergency Operations Plan establishes the emergency organization, assigns tasks, specifies policies and general procedures, and coordinates the planning efforts of the various emergency staff and service elements using the Standardized Emergency Management System. The Emergency Operations Plan integrates and coordinates the facilities and personnel of the member jurisdictions into an efficient organization capable of effectively responding to any emergency, including a wildfire.

Through this coordinated effort, the Emergency Operations Plan identifies emergency response policies, describes the response and recovery organization, and assigns specific roles and responsibilities to County departments, agencies, and community partners. The Emergency Operations Plan has the flexibility to be used for all emergencies and would facilitate response and recovery activities efficiently and effectively (Yolo County 2024).

3.20.3 Applicant-Proposed Measures

The following wildfire-related Applicant-proposed measure would be incorporated into the Project:

- **APM FIRE-1: Construction Fire Prevention Plan.** PG&E will implement the following fire prevention practices at active construction sites:
  - During Red Flag Warning events, as issued daily by the National Weather Service, all construction activities will cease, with an exception for transmission line testing, repairs, unfinished work, or other specific activities which may be allowed if the facility/equipment poses a greater fire risk if left in its current state.
  - All construction and maintenance crews and inspectors will be provided with radio and cellular telephone access that is operational in all work areas and access routes to allow for immediate reporting of fires. Communication pathways and equipment will be tested and confirmed operational each day prior to initiating construction activities at each work site. All fires will be reported to the fire agencies with jurisdiction in the area immediately upon discovery of the ignition.
  - Construction and maintenance personnel will be trained in fire-safe actions, initial attack firefighting, and fire reporting. Construction personnel will be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats.
  - All construction and maintenance personnel will carry a laminated card and be provided a hard hat sticker that lists pertinent telephone numbers for reporting fires and defining immediate steps

to take if a fire starts. Information on laminated contact cards and hard hat stickers will be updated as needed and redistributed to all construction personnel prior to the day the information change goes into effect.

- Construction and maintenance personnel will have fire suppression equipment on all construction vehicles and will be required to park vehicles away from dry vegetation. PG&E will coordinate with applicable local fire departments prior to construction activities to determine the appropriate amounts of fire equipment to be carried on vehicles and, should a fire occur, to coordinate fire suppression activities.
- Water tanks and/or water trucks will be sited or available at active Project sites for fire protection during construction.

3.20.4 Environmental Impacts

3.20.4.1 Methodology and Assumptions

Wildfire impacts have been evaluated within the context of the construction and operation and maintenance of the Project. No decommissioning would occur as part of the Project.[14] This analysis considers whether the Project's wildfire risk can be effectively lessened through implementation of standard regulatory requirements (e.g., compliance with CAL FIRE regulations, local fire codes, and the County's General Plan). In compliance with CEQA Guidelines Appendix G, the analyses set forth below consider the impacts related to wildfire risk that the Project could have on the surrounding area, not the wildfire-related impacts the surrounding area could have on the Project.

3.20.4.2 Direct and Indirect Effects

Criterion a) Whether the Project would substantially impair an adopted emergency response plan or emergency evacuation plan: *No Impact.*

During construction, as well as operation and maintenance, the Project would comply with all Yolo County emergency response plans and emergency evacuation plans. As described in Section 3.20.2*, Regulatory Setting*, the Project would be subject to the State Emergency Plan, 2023 Yolo County Operational Area Multi-Jurisdictional Hazard Mitigation Plan, 2024 Yolo County Emergency Operations Plan, and PG&E Company Emergency Response Plan. These plans and regulations contain frameworks for effective emergency response to incidents such as wildfire.

In addition, as part of APM FIRE-1: Construction Fire Prevention Plan, all construction and maintenance crews would be equipped with radio and cellular telephone access that is operational in all work areas and access routes to allow for immediate reporting of fires. Communication pathways and equipment would be tested and confirmed operational each day before the initiation of construction activities at each work site. Therefore, this communication pathway would allow for appropriate and swift response by emergency personnel should a fire occur. Any personnel working on the Project site could be expected to comply with all adopted plans and procedures for emergency response and evacuation. The number of workers on-site would range from 0 to 20, which would not contribute to an excessive burden on nearby emergency response services should an emergency occur. Given the compliance with applicable Yolo

[14] If the Applicant were to decide to decommission the facility, the Applicant would prepare a removal and restoration plan before removing or abandoning the facilities. This would require additional analysis as it pertains to wildfire and is not included in this analysis.

County emergency response plans, as well as APM FIRE-1 through which personnel would be equipped with effective response capabilities should a fire occur, the Project would have **no impact** on an adopted emergency response plan.

Criterion b) Whether the Project would, 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.*

During construction, as indicated in APM FIRE-1, the Applicant would implement fire prevention practices including communication, training, and maintenance of fire suppression equipment on site. Construction activities are anticipated to include excavation and installation of the subsurface interconnected system of conductors and pouring concrete footings and foundations. These activities would require grading and excavation, which would be the primary risk for ignition, as the heavy-duty machinery and equipment could result in sparks that ignite dry vegetation. However, because no trees occur within the existing or expanded substation property, and because vegetation within the expanded substation area would be removed before construction, fuel loading would be low.

As described in Section 3.20.2, *Regulatory Setting*, the Project would not be located in or near any State Responsibility Areas or lands classified as very high FHSZs, and would be located entirely in a Local Responsibility Area. The Project also would not be located on lands designated as CPUC high fire threat areas. See Figure 3.20-1 for a map of CAL FIRE FHSZs and CPUC high fire threat areas near the Project site. Should a fire occur as a result of operation and maintenance activities, the surrounding area is not at an elevated risk for uncontrolled spread of a wildfire.

Given the flat topography, moderate climate, and lack of fuel loading, the risk of the Project creating a wildfire that would spread uncontrollably is extremely low. Thus, the impact would be l**ess than significant**.

Mitigation: None required.

Criterion c) Whether the Project would 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 on the environment: *No Impact.*

The vegetation within the existing substation is permanently disturbed. The expansion area would be permanently disturbed as well, both during and after construction. The expanded substation site currently contains agricultural row crops and non-native vegetation in the roadside ditches, which would be removed during construction. Depending on the season, the agricultural crops could include corn or other row crops. As defined in Section 3.20.1*, Environmental Setting*, fuel sources are necessary for fire to spread. These agricultural crops would not be viable fuel sources on the Project site, as agricultural row crops have a high moisture content and thus are not susceptible to ignition. Conversely, typical fuel sources (i.e., dead tree leaves, twigs, branches, and standing trees; live trees and brush; and dry grasses) have low moisture content which enables them to ignite quickly and burn rapidly. Further, the Applicant would coordinate with the farmer to remove these row crops. This removal would not pose an increase in ignition risk even with the standard spark risk associated with heavy machinery and equipment due to the

lack of fuel loading as previously discussed. Additionally, the ruderal vegetation found primarily in the on-site ditches and culverts would be removed using hand tools or a backhoe. While the dry grasses as part of the ruderal vegetation could increase fire risk due to fuel loading, the risk would be minimized by lack of ignition source. Removal of the ruderal vegetation with hand tools or a backhoe poses a low risk of fire ignition due to the lack of spark risk. In addition, once the vegetation is cleared, the fuel source would be eliminated.

During operation and maintenance, no trees or vegetation would remain within the existing or expanded substation property. Additionally, the Project is not located in a fire hazard area, so fire breaks are not required (Chapter 2, *Project Description*). Thus, **no impact** would occur related to the installation or maintenance of associated infrastructure.

Criterion d) Whether the Project would 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: *No Impact.*

The Project would not 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. 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 in the context of Criterion b) above, Project construction would have a less-than-significant impact on wildfire risk because of the short duration of construction, flat site topography, lack of vegetative fuels, and assumed overall compliance with CPUC applicable general orders. 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. Additionally, because the Project site is located on flat land, the Project would not be located on slopes that could contribute to the occurrence of landslides or flooding. Therefore, the Project would have **no impact** related to its potential to exacerbate the risk of flooding and landslides as a result of post-fire slope instability.

3.20.5 References

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3.21 Mandatory Findings of Significance

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XXI. 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?	☐	☒	☐	☐
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)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

3.21.1 Mandatory Findings of Significance Discussion

Criterion a) Whether the project would 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*.

The analysis presented in this initial study/mitigated negative declaration (IS/MND) has identified, in various sections of this document, potentially significant environmental effects that would be attributable to the Project. To reduce such effects, specific mitigation measures are recommended and are included in the Project's Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) (see Section 5), which would be implemented upon adoption of this IS/MND. As required by CEQA, these mitigation measures, along with the Applicant-proposed measures (APMs), would be implemented as described in the MMRCP. With the mitigation measures identified in this 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 result in no impact related to a conflict with or obstruction of the implementation of the applicable air quality plan. Additionally, there would be less-than-significant impacts related to violation of air quality standards or substantial contributions to an existing or projected air quality violation, cumulatively considerable net increases of criteria pollutants for which the region is a designated non-attainment area, and the creation of objectionable odors. As analyzed in Section 3.10, *Hydrology and Water Quality*, the Project would have a less-than-significant impact related to the violation of water quality standards, waste discharge requirements, and the substantial degradation of water quality.

As analyzed in Section 3.4, *Biological Resources*, the Project would not have a substantial adverse effect on species identified as candidate, sensitive, or special status. It would have no impact on riparian habitat, wetlands, or other sensitive natural communities. It would not 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, or substantially reduce the number or restrict the range of a rare or endangered plant or animal. With mitigation, the Project would have a less-than-significant impact related to potential collision risk for birds or bats. Finally, the Project would not conflict with policies, ordinances, or plans protecting biological resources, including any adopted habitat conservation plan or natural community conservation plan.

As analyzed in Section 3.5, *Cultural Resources*, the Project would not eliminate important examples of the major periods of California history or prehistory. With the implementation of APMs CUL-1 through CUL-4, the Project would have a less-than-significant impact on historical and unique archaeological resources. Implementation of APM PALEO-1, APM PALEO-2, BMP-15, and BMP-16 would help to ensure that significant paleontological resources would not be inadvertently destroyed because of the Project, and the impact on paleontological resources would be less than significant.

Criterion b) Whether the project would have impacts that are individually limited, but cumulatively considerable: *Less-than-Significant Impact.*

Cumulative Effects

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.

As defined in CEQA Guidelines Section 15355, the term *cumulative impacts* refers to two or more individual effects, which, when considered together, are considerable or that compound or increase other environmental impacts. CEQA Guidelines Section 15355(b) states:

> *The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

See also CEQA Guidelines Section 15130(a)(1).

Consistent with CEQA Guidelines Section 15130(b), the California Public Utilities Commission 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 the California Public Utilities Commission (the Lead Agency). The analysis of cumulative impacts also considers projections contained in planning documents designed to evaluate regional or areawide conditions. Specifically, this "projections approach" is used at least in part in the cumulative analyses for air quality and greenhouse gas (GHG) emissions. Less-than-significant impacts are considered in the cumulative scenario on a case-

by-case basis depending on the baseline conditions and the potential incremental contribution. 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 were also used to determine an appropriate list of projects to be considered in this cumulative analysis:

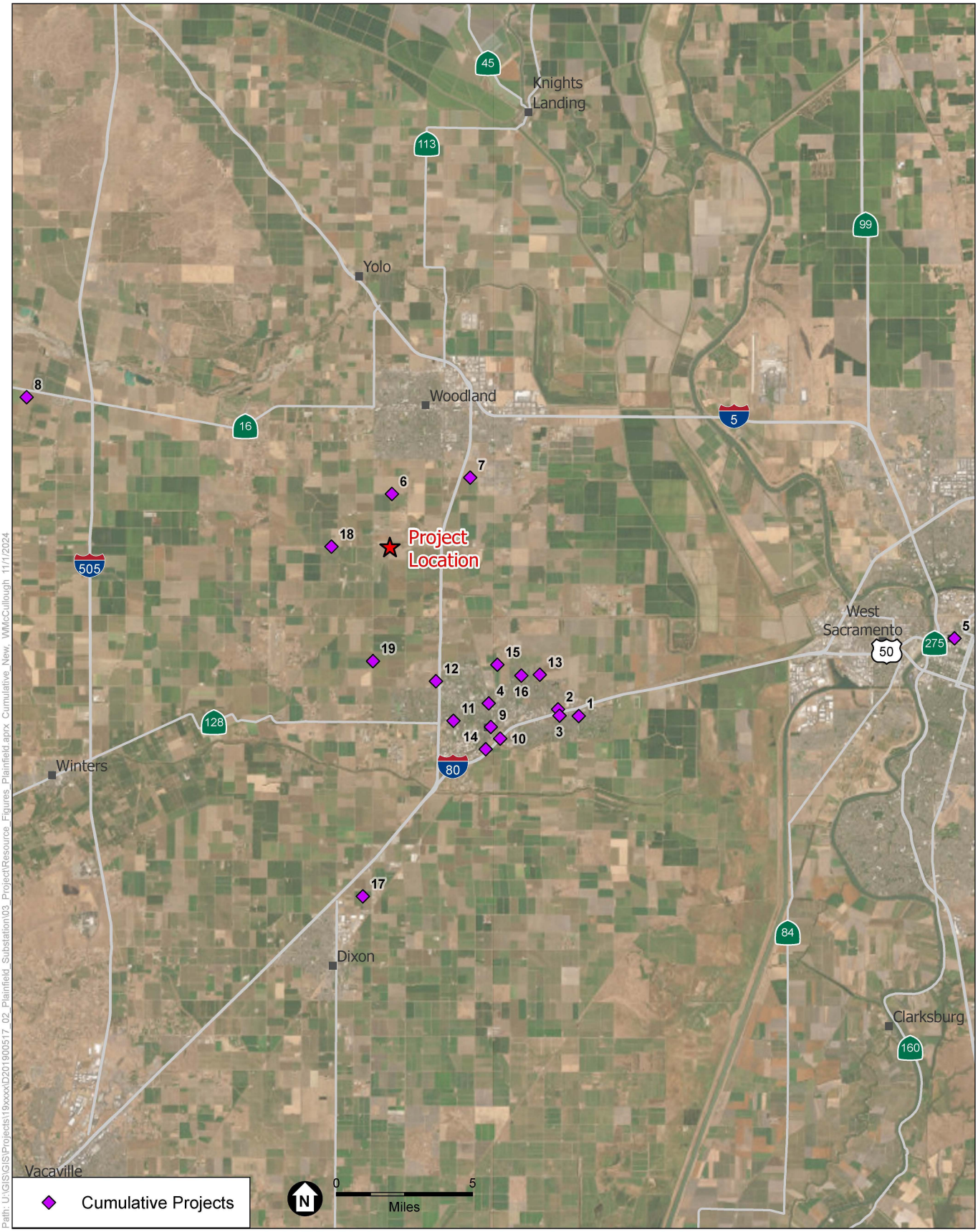
- **Similar Environmental Impacts**: The analysis considers "reasonably foreseeable" projects that would contribute to effects on resources also affected by the Project. These include, for example, other electric transmission or public utility-related projects.
- **Geographic Scope**: The appropriate 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 and operation and maintenance (O&M) periods coincide in terms of timing with the effects of the other projects.

The Project is proposed for a rural location with few urban projects in the vicinity. PG&E, the Cities of Woodland and Davis, and Yolo County were contacted, and they provided information about recent and reasonably foreseeable comparable projects in the geographic area. Additional information was obtained from the CEQAnet and California Department of Transportation websites. These comparable projects, along with the Plainfield Substation Upgrade Project, are considered collectively as part of the potential cumulative scenario depicted in **Figure 3.21-1**, ***Cumulative Projects,*** and described in **Table 3.21-1**, ***Cumulative Scenario***. The projects considered to be part of the cumulative scenario are presented in Table 3.21-1, which also describes the approximate geographic location of each project (see Figure 3.21-1 for a visual representation).

Aesthetics

As discussed in Section 3.1.4.2, *Direct and Indirect Effects*, no impacts on scenic resources within a state scenic highway or on scenic vistas would occur because none are designated in the Project study area. Moreover, the Project site's location is not one of high visual sensitivity. Therefore, the Project would not contribute to cumulative impacts related to these visual resource considerations. Additionally, because of the isolated angles at which glare may be experienced, and the design features (per APMs AES-2, AES-3, and AES-4) that are part of the Project, light and glare impacts would be minimized. The Project's less-than-significant impact related to light and glare would not combine with light and glare impacts from other facilities to result in an impact that would be cumulatively considerable. Therefore, the Project's impact on visual resources resulting from light and glare would not cause or contribute to a significant adverse cumulative impact.

The operation of the Project would result in permanent visual changes to the Project site due to the proposed expansion of the Plainfield Substation, which includes the installation of power poles and new electrical structures. However, these structures would be similar to structures present at the existing substation facility, making the new components somewhat consistent with the site's existing visual character. Therefore, the geographic scope consists of potential cumulative impacts on the existing visual character or quality of public views along County Road (CR) 27. Recently constructed and reasonably foreseeable projects in this geographic area are in a range of 0.3–15 miles of the Project site as described in Table 3.21-1.



Source: ESA, 2024

Plainfield Substation Upgrade Project

Figure 3.21-1
Cumulative Projects

ESA

TABLE 3.21-1
CUMULATIVE SCENARIO

Cumulative Project ID	Project Name/ Applicant	Location	Approximate Distance from Project Site	Description	Status
Past Projects					
1	Davis Express Carwash	480 Mace Blvd., Davis	7 miles southeast	Construction of a car wash and related infrastructure, as well as site improvements such as solar PV installations, and sidewalk and driveway improvements (City of Davis 2022a).	Completed.
2	Advanced Manufacturing Building	3808 Faraday Avenue, Davis	6.5 miles southeast	Construction of a new approximately 107,612-square-foot biotech/advanced manufacturing building and site improvements. The project also proposes to abandon or vacate a portion of the right-of-way of Faraday Avenue and reconstruct the cul-de-sac (City of Davis 2022b).	Completed.
3	3820 Chiles Road Apartments	3820 Chiles Road, Davis	6.5 miles southeast	New apartment consisting of approximately 225 apartment units (City of Davis 2019).	Completed.
4	Paul's Place	1111 H Street, Davis	5 miles southeast	New multi-functional homeless facility intended to replace the existing homeless facility located at 1111 H Street. The proposal for a new four-story building would include 18 units of permanent supportive micro-housing; 10 units of transitional housing; 4 emergency shelter beds; and enhanced day services, including expanded shower, restroom, and laundry facilities (City of Davis 2020).	Completed.
5	Sacramento Water Meters Project	Throughout the entire city of Sacramento.	15 miles east	Installation of water meters throughout the city. The Project was 99 percent complete in late 2024 (City of Sacramento 2023).	99 percent complete.
6	CR 25A	CR 25A from CR 97 to CR 100A.	1.5 miles north	Performing Triple Seal (micro surfacing and asphalt rubber cape seal) on the road (City of Woodland 2024).	Completed but not open. Should be open in early 2025 when streetlights and traffic signals are installed.
Other Present or Reasonably Foreseeable Future Projects					
7	Woodland Research and Technology Park Specific Plan	All or portions of six individual parcels of land; located adjacent to the Spring Lake Specific Plan neighborhood on the north and east, CR 25A and the urban limit line to the south and bounded by State Route 113 to the west.	4 miles southeast	2.2 million square feet of light industrial and manufacturing uses, including potentially larger scale fermentation (a high-power user), to be constructed over 10–15 years. The project also includes up to 1,800 residential units, some highway commercial uses (e.g., hotel, fast food, gas station), a mobility hub, and some retail (City of Woodland 2023).	The plan was adopted on September 5, 2023.

TABLE 3.21-1
CUMULATIVE SCENARIO

Cumulative Project ID	Project Name/ Applicant	Location	Approximate Distance from Project Site	Description	Status
8	Gibson Solar Project/ Gibson renewables, LLC	1.2 miles east of Esparto in unincorporated Yolo County.	15 miles northwest	20 MWac solar PV electricity generating facility with a 6.5 MWac/26 MWh to 13 MWac/52 MWh battery energy storage system called the Gibson Solar Farm (Yolo County 2023).	Approved by Board of Supervisors on October 10, 2023; in construction.
9	Cool Pavement Project	15 locations of failing pavement throughout the city of Davis.	Approximately 5 miles south	Installation of solar reflective "cool" pavement at critical areas throughout the city. The Davis Cool Pavement Project will repave 15 segments of failing pavement with cool pavement and bring the roadways up to current progressive City striping standards that strive to achieve the City's active transportation goals (City of Davis 2024a).	Construction expected to begin in mid-2025 and end in mid-2030.
10	Richards Boulevard/I-80 Interchange Improvements	Richards Boulevard /I-80 Interchange.	16 miles east	Improvement of traffic operations and multimodal safety at the interchange by reconfiguring the ramps and adding a grade-separated shared-use path. The project will reconfigure the existing westbound I-80 on-ramp and off-ramps to a "tight diamond" interchange and construct a grade-separated multiuse path to cross the Richards Boulevard overpass (City of Davis 2022c).	MND published February 2022; construction expected to begin in spring 2025 and end by fall 2027.
11	The Davis Collection	8.25-acre parcel currently developed with the existing University Mall on UC Davis's campus.	5 miles southeast	The proposed project (The Davis Collection) retains the existing 13,210-square-foot Trader Joe's building and redevelops the rest of the site with 101,246 square feet of new commercial space. The project includes related site improvements for parking, landscaping, circulation, gathering areas, and other improvements (City of Davis 2023a).	In February 2023, the project was found consistent with the previously prepared EIR. Construction is expected to be complete by mid-2025.
12	CommuniCare Expansion	2051 John Jones Road Davis, California.	4 miles southeast	Expansion of the existing Davis CommuniCare facility and construct a new 17,633-square-foot, one-story administrative office building, parking, detention basin, and other site improvements. The new building and improvements require approval of a design review and final planned development and requires a rezone to amend existing the Planned Development subarea zoning for the project area to change it from Urban Reserve to Public/Semi-Public (City of Davis 2022d).	Approved by Davis City Council on January 31, 2023. As of March 2025, the project is still pending construction.

TABLE 3.21-1
CUMULATIVE SCENARIO

Cumulative Project ID	Project Name/ Applicant	Location	Approximate Distance from Project Site	Description	Status
13	Palomino Place (formerly Wildhorse Horse Ranch)	Within the city of Davis at the southeast corner of Wildhorse Ranch.	5.5 miles southeast	130 new homeownership opportunities within Palomino Place and a minimum of 33 deed-restricted affordable apartment units (20 percent of total project units) and up to 45 affordable units (26 percent of total units) based upon the preference of the City Council. Should the City proceed with the additional affordable units, the project will provide a total of 175 new Davis homes, including both rental and for-sale opportunities, that will be attainable to households at nearly all income levels. Also, along Covell Boulevard, the project includes a 1.4-acre area designated for the construction of a new pentathlon training facility and a pool facility for use by local community groups (City of Davis 2024b).	On January 22, 2025, the Planning Commission approved the SEIR.
14	The Promenade–2023 (formerly Nishi Housing Site)	Adjacent to the UC Davis campus and close to downtown Davis.	5.5 miles south	New neighborhood adjacent to the UC Davis campus and close to downtown Davis. It is located on 46.9 acres with 2,200 beds across 700 units, with a mix of studio, 2-bedroom, and 4-bedroom floorplans ranging in size from 480 to 1,565 square feet (City of Davis 2023b).	An addendum to the previously certified EIR was prepared and approved by the Davis City Council on February 6, 2018. As of March, 2025, the City is working with the developer to prepare a second EIR addendum to analyze potential project changes.
15	Village Farms Davis	The unincorporated land located in the northern part of the city, between the Wildhorse golf course and Northstar.	4.5 miles southeast	General plan amendment, preliminary planned development/rezone, and annexation to develop a new neighborhood in the city. The proposal will require approval by the electorate under Measure J/R/D. The following is a summary and breakdown of the proposed land uses on the 390.5-acre site (City of Davis 2023c).	DEIR was available for public review from January 7, 2025 through February 25, 2025.
16	Water Main System Saddle Replacements	This project will replace 187 water saddles in the Wildhorse development in the city of Davis.	Approximately 5 miles south	Saddles connecting water services to the water main have deteriorated from corrosion at numerous locations throughout Wildhorse. Dozens of saddles have already been repaired by the Water Division in the current project area as breaks and leaks have occurred. The current project will replace 187 water saddles, which will complete the majority of saddle replacements in the Wildhorse development (City of Davis 2024c).	Construction began in June 202, expected for completion in mid-2025.

TABLE 3.21-1
CUMULATIVE SCENARIO

Cumulative Project ID	Project Name/ Applicant	Location	Approximate Distance from Project Site	Description	Status
17	The Campus Project	Bounded by Pedrick Road with Solano County unincorporated agricultural lands to the east, by Industrial designated lands to the north and south, and lands designated as Regional Commercial and Industrial to the west.	10 miles south	Phased, mixed-use development that includes an approximately 48-acre Dixon Opportunity Center, 144 acres of residential uses, and 2.5 acres of commercial uses. A high-density residential site would be located contiguous to the Dixon Opportunity Center, and adjacent residential uses (City of Dixon 2024).	City Council hearing to consider FEIR on March 18, 2025.
18	Wilbur-Ellis Consolidation Facility Project	Intersection of CR 98 and CR 27.	0.3 mile west	Conversion of an existing seed research facility into a centralized facility for the distribution of fertilizer and agricultural products. New construction would include a 20,000-square-foot chemical warehouse, 12,500-square-foot liquid fertilizer containment area, 7,500-square-foot dry fertilizer storage, expanded driveway, and truck scale (Yolo County 2021a).	Construction began in 2022.
19	CR 98 Bike and Safety Improvement Project, Phase II	1,300 feet south of CR 29 and extending 4.1 miles southward along CR 98.	2.3 miles south	Widen and improve shoulders along CR 98 for the purpose of improving public safety. Roundabouts will be constructed at the intersections of CR 31, CR 32, and Hutchison Drive. Implementation of the project will require the relocation of drainage ditches and utilities outside the clear recovery zone, which will include extension, replacement, and/or relocation of existing drainage structures to accommodate the widened road (Yolo County 2021b).	Pattison & Associates performed appraisal site visits in March 2023 and April 2023 and produced appraisal reports for each property. As of March, 2025, the County is working on acquiring all of the right of way needed for the project.

NOTES: CR = County Road; DEIR = draft environmental impact report; EIR = environmental impact report; I-80 = Interstate 80; MND = mitigated negative declaration; MWac = megawatt alternating current; MWh = megawatt-hours; PV = photovoltaic; SEIR = supplemental environmental impact report; UC Davis = University of California, Davis.

SOURCES: City of Davis 2019, 2020, 2022a, 2022b, 2022c, 2022d, 2023a, 2023b, 2023c, 2024a, 2024b, 2024c; City of Dixon 2024; City of Sacramento 2023; City of Woodland 2023; City of Woodland 2024; Yolo County 2021a, 2021b, 2023; data compiled by Environmental Science Associates in 2025.

Of these cumulative projects, only the Wilbur-Ellis Consolidation Facility Project is within the viewshed and in the foreground view of the Project. Like the Plainfield Substation Upgrade Project, the Wilbur-Ellis Consolidation Facility Project consists of upgrades to existing uses with no change to the existing land uses. These projects, when considered together, would not alter the visual character of the site and surroundings. Therefore, the incremental less-than-significant visual impact added by the Project once operational would result in less-than-significant cumulative impacts on the visual quality and public views of the site and its surroundings.

Agriculture and Forestry Resources

As discussed in Section 3.2.4.2, *Direct and Indirect Impacts*, no impacts would occur related to conflicts with existing zoning for forest land or the loss or conversion of forest land to non-forest use. As a result, the Project would not cause or contribute to cumulative impacts on these resources.

The geographic scope of the cumulative effects on agricultural resources includes Prime Farmland, as this is the only Farmland mapping category that would be affected by the Project, and Williamson Act contract parcels, in Yolo County. The majority of the cumulative projects listed in Table 3.21-1 are located within the city of Davis and do not contain Prime Farmland or Williamson Act–contracted land. However, the following five cumulative projects are located on Prime Farmland and on Williamson Act–contracted land: County Road 25A Project, Woodland Research and Technology Park Specific Plan, Gibson Solar Project, Wilbur-Ellis Consolidation Facility Project, and CR 98 Bike and Safety Improvement Project Phase II.

Regarding Prime Farmland, the Project's substation expansion would assume 5.2 acres of a 320.8-acre parcel. Although the land may be Prime Farmland, the amount of land that would be acquired in the expansion would not represent an appreciable quantity because its combination with the loss of Prime Farmland from the cumulative projects would not be large enough to constitute a significant impact. The five cumulative projects that involve the conversion of Prime Farmland would account for a combined conversion of 530 acres of Prime Farmland, and the 5.2 acres that the Project would convert would be a less than 1 percent addition. Therefore, the Project's contribution to the overall cumulative impact would not be cumulatively considerable and would be less than significant.

Although the Project would be on land subject to a Williamson Act contract, the Project would be a compatible use and would not conflict with adjacent contracted lands. Lastly, the Project's less-than-significant impact on nearby agricultural land from the temporary work areas would not combine with other projects because the cumulative projects are not close enough to have a combined effect. In all, the Project would not combine with other cumulative projects to cumulatively affect Williamson Act–contracted land or Prime Farmland because the Project would not remove a significant quantity of Farmland or be incompatible with a Williamson Act contract. Therefore, the Project's contribution to cumulative impacts on Prime Farmland and conflicts with Williamson Act contracts would not be considerable, and the impact would be less than significant.

Air Quality

The geographic scope considered for cumulative impacts on regional air quality is the jurisdictional area of the Yolo-Solano Air Quality Management District (YSAQMD), and the temporal scope comprises the Project's construction time frame and operational lifetime. The YSAQMD is currently classified as non-

attainment for the state 1-hour and state/national 8-hour ozone, state 24-hour and annual PM_{10}, and national 24-hour $PM_{2.5}$ standards. Therefore, ozone, PM_{10}, and $PM_{2.5}$ emissions are considered an existing adverse cumulative impact in the YSAQMD. All other criteria pollutants in the YSAQMD are classified as attainment or unclassified relative to the federal and state standards.

As concluded in Section 3.3.4.2, *Direct and Indirect Impacts*, under Criterion a), the Project would not conflict with or obstruct implementation of the applicable air quality plans, and no impact would occur. Therefore, there would be no incremental Project impact that would be cumulatively considerable, and no cumulative impacts related to the implementation of an air quality plan would occur associated with the Project.

Ozone, PM_{10}, and $PM_{2.5}$ are pollutants classified as non-attainment in the YSAQMD. As discussed in Section 3.3, *Air Quality*, the YSAQMD's thresholds of significance for criteria pollutants can be used to determine whether a project's individual emissions would have a cumulatively significant impact on air quality by contributing to exceedances of standards of non-attainment pollutants in the region. Therefore, should a project exceed the identified significance thresholds, its emissions would be cumulatively considerable, and should a project not exceed the significance thresholds, its emissions would not be cumulatively considerable. Project-related construction activities would not exceed the identified significance thresholds. Therefore, construction of the Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment status under an applicable federal or state ambient air quality standard. The cumulative impact with respect to construction criteria air pollutant emissions would be less than significant. Long-term O&M of the Project would also not cause emissions that would exceed the operational significance thresholds, as activities would not change from those required for the existing Project site (see Section 3.3.4, *Environmental Impacts*). Therefore, operation of the Project would not result in a cumulatively considerable increase of any criteria pollutant for which the Project region is in non-attainment status under an applicable federal or state ambient air quality standard. There would be no cumulative impact with respect to O&M criteria air pollutant emissions.

The geographic scope for cumulative impacts with respect to sensitive receptors includes cumulative projects within 1,000 feet of sensitive receptors if the sensitive receptors are also within 1,000 feet of the Project. As described in Section 3.3.1, *Environmental Setting*, the nearest sensitive receptors to the Project site are residences located greater than 1,500 feet away, and the health risk impacts associated with the Project's construction toxic air contaminant emissions would be less than significant. As shown in Table 3.21-1, which lists the cumulative projects in the Project's vicinity, the Wilbur-Ellis Consolidation Facility Project is the closest project with respect to the sensitive receptors identified near the Project site. The Wilbur-Ellis Consolidation Facility Project is close to sensitive receptors but is more than 1,500 feet from the Project site. Construction for the Wilbur-Ellis Consolidation Facility Project began in 2022 and was estimated to occur over a 6- to 9-month period and would not occur during the time frame of the Project. The initial study prepared for the Wilbur-Ellis Consolidation Facility Project found that the Project's construction and operation would not result in a substantial localized air toxic pollutant emissions increase that could expose sensitive receptors to substantial pollutant concentrations. Given that the closest sensitive receptor to the Wilbur-Ellis Consolidation Facility Project is more than 1,500 feet from the Project site, the health risk from the short-term diesel particulate matter emissions during Project

construction would not be cumulatively considerable, and the cumulative impact would be less than significant.

Construction of the Project would cause a less-than-significant impact related to the generation of odors from diesel equipment emissions because construction activities would be intermittent, and associated odors would dissipate quickly and would not be noticeable at the nearest sensitive receptor location greater than 1,500 feet away from the Project site. There is no existing adverse cumulative condition related to odors to which the Project could contribute. As described above, the nearest cumulative project with sensitive receptors (the Wilbur-Ellis Consolidation Facility Project) would not occur in the same time frame as the Project. Projects in the cumulative scenario are not expected to cause diesel-related odors that would substantially intermingle with those of the Project and thereby cause a significant cumulative effect. Therefore, when considered in combination with the impacts of other projects in the cumulative scenario, the Project's incremental contribution to cumulative air quality impacts would not be cumulatively considerable and would have a less-than-significant impact.

Biological Resources

The geographic scope for the evaluation of cumulative effects on biological resources includes a 0.5-mile buffer immediately surrounding the Project site. This 0.5-mile distance is inclusive of the typical buffer distances for certain raptor species, such as Swainson's hawk, that may occur within the Project site and may be subject to direct or indirect disturbances during construction activities. With the implementation of applicable APMs and field protocol measures listed in Section 3.4.3, *Regulatory Framework*, and Mitigation Measure BIO-1, *Wildlife-Friendly Design Features*, the Project would not have any significant impacts on any known sensitive biological resources.

The only cumulative project located within 0.5 mile of the Project site is the Wilbur-Ellis Consolidation Facility Project; its construction was considered for its potential to contribute to cumulative noise that may disrupt the nesting behavior of raptors. The potential for cumulative impacts of the Wilbur-Ellis Consolidation Facility Project along with this Project would be realized only if their construction schedules would coincide or overlap; construction for the Wilbur-Ellis Consolidation Facility Project started in 2022 and would not occur during the same construction period as the Project. Overall, in consideration of the impacts of other projects in the cumulative scenario, the Project's incremental contribution to biological resources impacts would not be cumulatively considerable and would have a less-than-significant impact.

Cultural Resources

The geographic scope for cumulative effects on cultural resources includes the immediate vicinity of locations where the Project could cause disturbance to historical resources, unique archaeological resources, and/or human remains. Because the Project would not have an impact on historical resources of the built environment, no cumulative impact would occur. There are no known archaeological resources qualifying as historical resources or unique archaeological resources in the study area; therefore, there would be no cumulative impact on known resources. Similar to the Project, cumulative projects in the vicinity could have a significant impact on previously undiscovered archaeological resources, including human remains interred outside of formal cemeteries, during ground-disturbing activities. The potential impacts of the Project, when considered together with similar impacts from other probable future projects in the vicinity, could result in a significant cumulative impact on buried archaeological resources or

human remains. However, implementation of APMs would require worker environmental awareness training for cultural resources and would halt work in the vicinity of a find until the find is evaluated (and in the case of human remains, until the county coroner is contacted). In addition, cumulative projects undergoing CEQA review would have similar types of training and inadvertent discovery measures. Therefore, with implementation of the APMs, the Project's contribution to cumulative impacts would not be considerable, and the impact would be less than significant.

Energy

The geographic context for potential cumulative impacts related to vehicle fuel use is the area within the Project's construction equipment delivery and workers' average travel radius. These areas represent the geographic context because they are the areas within which energy resources would be supplied for the Project. The Project would use energy resources during initial construction and O&M; therefore, it could contribute to potential cumulative impacts during any of these phases as well.

The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, nor would it add capacity for the purpose of serving a non-renewable energy resource. Therefore, the Project would not cause or contribute to any cumulative impact related to these considerations.

As explained in Section 3.6.4.2, *Direct and Indirect Effects*, 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, *Energy*. As noted there, the California Department of Tax and Fee Administration reports that approximately 13.6 billion gallons of gasoline (CDTFA 2024) and 3.5 billion gallons of diesel were sold in California in 2023 (CEC 2024). In Yolo County, an estimated 99 million gallons of gasoline and 54 million gallons of diesel were sold in 2022 (CEC 2024). There is no existing significant adverse condition (such as a shortage) that would be worsened or intensified by the Project. The past, present, and reasonably foreseeable future projects described in Table 3.21-1 near the Project site could require gasoline or diesel but would not combine with the Project's fuel demands to cause a significant adverse cumulative impact related to the wasteful, inefficient, or unnecessary consumption or use of fuel. In the event of a future shortage, higher prices at the pump would curtail unnecessary trips that could be termed "wasteful" and would moderate choices regarding vehicles, equipment, and fuel efficiency. Under these conditions, the Project's less-than-significant impact related to wasteful, inefficient, or unnecessary consumption or use of fuel would not be cumulatively considerable. As a result, the Project's cumulative energy impact would be less than significant.

Geology and Soils

As discussed in Section 3.7, *Geology and Soils*, the Project would not cause any impact related to the rupture of a known earthquake fault or landslides. Therefore, the Project could not cause or contribute to any cumulative impact related to the rupture of a known earthquake fault or landslide. For the remaining geology, soils, or paleontological resources considerations, this section analyzes the potential significance

of the cumulative effects of the Project's incremental impact in combination with the incremental impacts of one or more of the cumulative projects identified in Table 3.21-1, *Cumulative Projects List*.

For Project impacts to combine with the impacts of other projects, the collective incremental impacts must overlap both geographically and temporally. The geographic area affected by the Project and its potential to contribute to cumulative impacts related to geology, soils, and paleontological resources is confined to the Project site and its immediately adjacent area because the Project would not cause or contribute to any potential significant impact beyond this range. The time frame during which the Project could contribute to cumulative impacts related to geology, soils, and paleontological resources would begin with on-site ground-disturbing construction activities and would extend throughout the lifetime of the Project.

As discussed in Section 3.7.4, *Environmental Impacts,* state and local building regulations and standards have been established to address and reduce the potential for projects to cause or exacerbate seismic hazard impacts. The Project would be designed and constructed in accordance with the most current building code requirements; accordingly, the potential for the Project to exacerbate seismic hazards would be less than significant. All projects occurring near the Project would be required to comply with the same applicable provisions of these laws and regulations. Based on compliance with these requirements, the incremental, less-than-significant impacts of the Project combined with impacts of other projects in the area would not combine to cause a significant cumulative impact related to seismic hazards.

If site drainage is not managed properly, then drainage from the Project site in combination with drainage from other project sites could cause soil erosion or loss of topsoil at a regional and local level. As with the Project, all other projects would be required to comply with existing codes, standards, and permitting requirements (e.g., preparation and implementation of a storm water pollution prevention plan [SWPPP] under the state Construction General Permit) to prevent significant erosion impacts. Potential significant impacts of the Project related to soil erosion and loss of topsoil would be prevented through implementation of the best management practices identified in the SWPPP. Requirements in the state Construction General Permit are designed to reduce adverse cumulative effects of erosion and sedimentation. Cumulative projects would be required to implement similar stormwater control requirements and best management practices. As discussed in Section 3.7.4, *Environmental Impacts*, there would be a less-than-significant impact related to liquefaction, lateral spreading, landslide, or other seismic-related ground failure. The Project would be designed to comply with applicable building codes to withstand the effects of settlement or collapsible soils and reduce the risk of the Project affecting soil stability. Similar projects in the area would also be required to adhere to all applicable federal, state, and local regulations regarding soil and geologic stability. Cumulative projects would be required to comply with the same regulations.

The geographic scope of cumulative impacts on paleontological resources includes the Project site and adjacent areas where deposits with a high potential to contain paleontological resources could be disturbed. The Project is not located in an area of known paleontological significance. Should paleontological resources extend across areas of ground disturbance from the Project and cumulative projects, then a cumulative loss of paleontological resources could result and would have a significant impact. However, implementation of APM GS-2, *Unanticipated Discovery of Paleontological Resources*, at the Project level would effectively reduce the Project's incremental contribution to any cumulative impact by limiting the potential loss of such resources, if discovered during Project-related ground

disturbance. Cumulative projects that are located on geologic units with the potential to encounter paleontological resources would also be required to implement a mitigation measure to protect such paleontological resources. With compliance with existing regulations and mitigation measures, the Project's incremental contribution would not cause or contribute to a cumulatively considerable impact.

Greenhouse Gas Emissions

The California Air Pollution Control Officers Association considers GHG emissions 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 Senate Bill 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 be cumulatively considerable and the cumulative impact would be less than significant.

Hazards and Hazardous Materials

The Project would cause no impact related to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of a school or hospital; no impact related to location on a site that is included on the Cortese List; and no impact related to location within an airport land use plan or within 2 miles of a public airport or public use airport. Therefore, the Project could not cause or contribute to any cumulative impact related to these considerations. For the remaining hazards and hazardous materials considerations, this section analyzes the potential significance of the cumulative effects of the Project's incremental impact in combination with the incremental impacts of one or more of the cumulative projects identified in Table 3.21-1, *Cumulative Scenario*.

For Project impacts to combine with the impacts of other projects, the collective incremental impacts must overlap both geographically and temporally, and thus must threaten the same ecosystem, resource, or people. The geographic area affected by the Project and its potential to contribute to cumulative impacts related to hazardous materials is confined to the Project site and its immediately adjacent area. This is because hazardous materials impacts are generally site specific and depend on the nature and extent of the hazardous materials release and on existing and future soil and groundwater conditions. For example, hazardous materials incidents tend to be limited to a smaller and more localized area surrounding the immediate spill location and extent of the release. The time frame during which the Project could contribute to cumulative impacts related to hazards and hazardous materials includes the duration of on-site activities.

Current and reasonably foreseeable cumulative projects would be required to comply with all applicable federal, state, and local regulatory requirements, including those described in Section 3.9.2, *Regulatory Framework*. Given compliance with these requirements, the incremental impacts of the Project combined with impacts of other projects in the relevant geographic area would not cause or contribute to a significant cumulative impact related to the transport, storage, use, and disposal of hazardous materials or reasonably foreseeable upset and accident conditions. Furthermore, any additional traffic introduced during Project construction, or any road closures because of construction, would be subject to **APM TRANS-1**, which

stipulates that PG&E shall obtain necessary transportation and encroachment permits from the California Department of Transportation and the local jurisdictions, as required. Should construction activities require lane or road closure of CR 27, PG&E would notify local emergency service providers at least 24 hours before any full or partial road closure. With implementation of APM TRANS-1, Project impacts would be less than significant. Projects in the area would be subject to similar recommendations and requirements.

The Project site is not located in a high Fire Hazard Severity Zone in a State Responsibility Area. As discussed in Section 3.9.4.2, *Direct and Indirect Effects*, PG&E would implement **APM FIRE-1**, which would require coordination with local fire departments during construction to manage fire risk on-site. Project impacts related to wildfire in the area would be less than significant. Similarly, projects in the vicinity would be subject to similar rules and regulations, and there would therefore be no significant cumulative impact related to wildfire.

Projects in the area, as listed in Table 3.21-1, *Cumulative Scenario*, would be largely development projects in the city of Davis and road infrastructure improvements. These projects would be subject to the same rules and regulations as the Project with respect to the handling of hazardous materials. Therefore, based on compliance with these requirements and the distance to cumulative projects, the incremental impacts of the Project combined with impacts of other projects in the relevant geographic area would not cause or contribute to a significant cumulative impact related to reasonably foreseeable upset and accident conditions. Additionally, the Project's incremental contribution to cumulative effects would not be cumulatively considerable.

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 in the Yolo Subbasin of the Sacramento Valley Groundwater Basin.

As discussed in Section 3.10.4.2, *Direct and Indirect Effects*, the Project would have less-than-significant impacts on hydrology and water quality, with no impact on drainage that would impede or redirect flood flows. As described in Section 3.10, *Hydrology and Water Quality*, the Project would result in a slight increase in impervious surfaces because of the addition of a new access road within the Project area. Once constructed, the Project would be designed such that stormwater runoff would drain into a newly constructed unlined stormwater retention pond, as described in Chapter 2, *Project Description*, or into a spill prevention, control, and countermeasure containment system to contain and minimize runoff. The retention pond would be unlined to allow infiltration and groundwater recharge.

Under the National Pollutant Discharge Elimination System Construction General Permit, a SWPPP would be required during construction to prevent stormwater degradation associated with soil disturbances, help stabilize disturbed areas, and reduce erosion and sedimentation. The Project's implementation of various measures required by the Construction General Permit, including the SWPPP and its best management practices intended to protect waterways and water quality, would comply with regional water quality standards or waste discharge requirements. Additionally, as described in Table 2-9, numerous APMs (HYDRO-1, BIO-2, BIO-6, BIO-15, GHG-3, HAZ-1, HAZ-3, and HAZ-4) have been proposed and would be implemented to reduce the effects of the Project on water quality. Upon construction

completion, post-construction standards would remain in effect. The hazardous materials business plan would be updated to incorporate changes pertaining to hazardous materials in accordance with the federal and state guidelines, as described in APM HAZ-3. These regulatory requirements and APMs would reduce effects and result in less-than-significant impacts. Although the majority of the existing Project site is within the 100-year flood zone, implementation of APMs, such as HAZ-3 and HAZ-4, and a spill prevention, control, and countermeasure plan would help to ensure that hazardous materials would be managed, stored, and transported in a manner that would not result in contamination or otherwise compromise water quality. The spill prevention, control, and countermeasure plan would be updated after construction, in accordance with Code of Federal Regulations Title 40, Part 112.

As with the Project, the cumulative projects identified in Table 3.21-1 would be held to enforceable regulatory standards pertaining to hydrology and water quality. For example, other cumulative projects that disturb more than 1 acre of land would also be required to implement stormwater protection measures and obtain coverage under the National Pollutant Discharge Elimination System Construction General Permit. Therefore, the Project's incremental less-than-significant impact would not combine with potential impacts of other projects to result in impacts that would be cumulatively considerable. Cumulative impacts related to stormwater runoff would be less than significant.

The Project, along with the cumulative projects listed in Table 3.21-1, would be required to comply with federal, state, and local regulations. With the implementation of regulatory controls and APMs including their protective measures, the Project would not contribute to significant cumulative impacts pertaining to water quality. The incremental contribution of Project-related impacts would be less than cumulatively considerable and less than significant.

Land Use and Planning

As discussed in Section 3.11.4.2, *Discussion*, because the Project would not have any impact on land use and planning, the Project would not cause or contribute to any cumulative impact related to land use and planning.

Mineral Resources

The Project would not have any impact on mineral resources, as described in Section 3.12.4.2, *Direct and Indirect Effects*. Therefore, the Project could not cause or contribute to any cumulative impact related to mineral resources.

Noise

The geographic scope for the evaluation of cumulative changes related to construction noise and vibration attributable to the Project would be localized in unincorporated Yolo County. 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, depending on the presence of intervening topography and structures. Cumulative projects located within 0.5 mile of the Project site include the Wilbur-Ellis Consolidation Facility Project. The Project would contribute to a cumulative noise impact along with this cumulative project only if their construction schedules coincided or overlapped, which, as discussed elsewhere in this analysis, they would not.

As discussed in Section 3.13, *Noise*, the Project would have no impact pertaining to the exposure of people residing or working on the Project site to excessive noise levels associated with an airport or airstrip. 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.

The Project's construction impacts would be less than significant when related to substantial temporary increases in ambient noise levels exceeding standards and the generation of excessive groundborne vibration or groundborne noise levels during construction. Construction of the Wilbur-Ellis Consolidation Facility Project started in 2022 and would not occur during the same construction period as the Project. Therefore, given that the noise sources associated with the Project and the cumulative project would be distributed spatially and temporally, there would be no cumulative construction noise impacts from multiple projects affecting the same set of receptors.

Additionally, O&M of the Project would not introduce any new permanent sources of noise or groundborne vibration to the study area. O&M activities at the Project site would continue to be conducted with the same frequency as current activities. The Project would not contribute to any significant cumulative noise and vibration impacts at the Project site once construction is completed. Therefore, 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.

Population and Housing

As discussed in Section 3.14.4.2, *Discussion*, no impacts related to population and housing would occur that would be attributable to the Project. Therefore, there could be no incremental impacts that would be cumulatively considerable, and there would be no cumulative impact on population and housing associated with the Project.

Public Services

As stated in Section 3.15.4.2, *Discussion*, no impacts related to public service resources would occur that would be attributable to the Project. Therefore, there could be no incremental impacts that would be cumulatively considerable, and there would be no cumulative impact on public services associated with the Project.

Recreation

As stated in Section 3.16.4.2, *Direct and Indirect Effects*, no impacts on recreation resources would occur that would be attributable to the Project. Therefore, there could be no incremental impacts that would be cumulatively considerable, and there would be no cumulative impact on recreation resources associated with the Project.

Transportation

The potential for cumulative transportation impacts exists where multiple projects are proposed in an area that would result in overlapping vehicle use of the surrounding roadway network. Cumulative impacts of

the Project related to transportation and circulation would be limited to construction impacts. Known projects that could likely have construction phases that would overlap with the Project include the CR 98 Bike and Safety Improvement Project, Phase II, and the Wilbur-Ellis Consolidation Facility Project. The CR 98 Bike and Safety Improvement Project, Phase II, would include widening and improving shoulders along CR 98 to improve public safety, starting approximately 1,300 feet south of CR 29 and extending 4.1 miles southward along CR 98. The Wilbur-Ellis Consolidation Facility Project would convert the existing seed research facility into a centralized facility for the distribution of fertilizer and agricultural products. These projects, along with the Plainfield Substation Upgrade Project, could likely contribute to substantial delays along CR 98, approximately 0.4 mile east of the Project site, and on CR 27, adjacent to the Project site.

Implementation of the proposed traffic control plan pursuant to APM TRANS-1 would involve implementing measures to control construction traffic–related impacts, to minimize traffic congestion and potential vehicular conflicts, and maintain traffic safety. To reduce construction worker vehicle trips, APM GHG-1 includes a provision to encourage construction workers to use suitable park-and-ride facilities and carpool to the Project site. The implementation of these measures as part of the Project would likely limit the Project's contribution to temporary roadway congestion and maintain traffic safety, in compliance with federal, state, and local transportation policies and regulations. With the implementation of APMs TRANS-1 and GHG-1, construction-related cumulative transportation impacts would be considered less than cumulatively considerable and would not likely conflict with relevant federal, state, and local transportation policies, plans, and standards.

Tribal Cultural Resources

The geographic scope for cumulative effects on tribal cultural resources includes the immediate vicinity of locations where the Project could disturb tribal cultural resources. Similar to the Project, cumulative projects in the vicinity could have a significant impact on previously undiscovered archaeological resources and human remains, which could be considered tribal cultural resources, during ground-disturbing activities. The potential impacts of the Project, when considered together with similar impacts from other probable future projects in the vicinity, could result in a significant cumulative impact on tribal cultural resources. However, APMs would be implemented that include a worker environmental awareness training and procedures for work stoppage and evaluation should a resource be discovered, including contacting the county coroner in the case of human remains. In addition, cumulative projects undergoing CEQA review would have similar types of training programs and inadvertent-discovery measures. Therefore, with implementation of the APMs, the Project's contribution to cumulative impacts would not be considerable, and the impact would be less than significant.

Utilities and Service Systems

The cumulative analysis scope for consideration of utilities and service systems would be past and present projects within a 10-mile radius. Therefore, all the projects from the table except the Sacramento Water Meters Project, Gibson Solar Project, and Richards Boulevard/I-80 Interchange Improvements Project would fall within the geographic scope. Analysis in Section 3.19.4.2, *Direct and Indirect Effects*, determined that the Project would have no impact pertaining to wastewater treatment requirements of the Central Valley Regional Water Quality Control Board; the construction of new water or wastewater treatment facilities or expansion of existing facilities; the sufficiency of water supplies available to serve the Project from existing resources; or the adequacy of capacity to serve the Project's projected demand in

addition to the provider's existing commitments. The Project's anticipated construction water demand of 2.3 million gallons would be limited to the duration of construction (up to 30 months). This demand would be met through recycled or reclaimed water, if available, or municipal sources. The Project's water demand would not be ongoing, and the Project's construction water demand would not result in an impact that would be cumulatively considerable.

The Project would result in less-than-significant impacts related to groundwater supply and recharge. The construction of a new stormwater retention pond, as described in Chapter 2, *Project Description*, is proposed to allow for infiltration and groundwater recharge. During O&M, the expanded stormwater drainage would be designed to slow the percolation of water and reduce runoff; the retention pond would drain to the roadside ditch on CR 27 during a storm event.

Cumulative impacts of the Project related to utilities and service systems would be limited to the construction phase. As discussed in Section 3.19.4.2, it is estimated that approximately 19 tons of general solid waste would be generated during construction. As described in Section 3.19.4.2, there is sufficient capacity at the Yolo County Central Landfill to accommodate the solid waste materials generated during Project construction. Mitigation is recommended to help ensure that the Project would comply with state and local requirements, maximize solid waste recycling, and reduce solid waste impacts to less-than-significant levels. Therefore, the Project's incremental less-than-significant impact, when considered along with incremental impacts of other projects, would result in a less-than-significant cumulative impact.

Wildfire

The geographic scope for potential cumulative impacts related to wildfire encompasses the Project site and the surrounding conditions that could contribute to the fire environment and nearby evacuation routes. Cumulative projects surrounding the Project site that could contribute to wildfire risk consist primarily of the Gibson Solar Project and the County Road 25A Resealing Project. Construction of these projects would involve an additional ignition source because of vehicle and equipment use and could result in temporary traffic changes and road closures. Because the Project would have no impact with respect to Criteria a), c), and d), there would also be no cumulative considerable contribution. With respect to Criterion b), when cumulatively considered, impacts would be less than significant, as explained below.

The Project could increase the potential for ignition sources in the area, in combination with the projects listed in Table 3.21-1. However, given the flat topography, lack of vegetation, no high fire threat zone designations, and lack of fire history within the geographic scope of cumulative impacts, the impact of an increase in Project ignition sources in combination with the incremental impacts of other projects would be less than significant. Therefore, the Project would not cause or contribute to a significant cumulative impact related to the exacerbation of wildfire risks because of slope, prevailing winds, or other factors, nor would it expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Criterion c) Whether the Project would have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly: *Less-than-Significant Impact.*

The Project does not have the potential for environmental effects that could cause substantial direct or indirect adverse effects on human beings. For example, as analyzed in the pertinent sections of Chapter 3, the Project would cause either no impact or less-than-significant impacts related to air quality, noise, hazards and hazardous materials, and wildfire.

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CHAPTER 5

Mitigation Monitoring, Compliance, and Reporting Program

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PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
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MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM

Pacific Gas and Electric Company
Plainfield Substation Upgrade Project
(Application No. A.24-06-008)

5.1 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 Company's (PG&E's) application to construct, operate and maintain the Plainfield Substation Upgrade Project (Project). The MMCRP includes all measures proposed by PG&E also referred to as Applicant Proposed Measures (APMs), and all mitigation measures identified by the CPUC to reduce potentially significant impacts to less-than-significant levels. All APMs and mitigation measures are presented in **Table 5-1** provided at the end of this MMCRP.

If the Project is approved by the CPUC, 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.

5.2 Pacific Gas and Electric Company – 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 an 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 an 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 to construct and operate the Plainfield Substation Upgrade Project, PG&E would be responsible for the implementation of all 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 the expansion of the Plainfield Substation which would consist of upgrades to the existing 60 kilovolt (kV) bus, installation of two new shunt capacitor banks, a new station battery enclosure, larger modular protection automation and control structure, replacement and installation of tubular steel poles and all-aluminum conductor power lines, a stormwater retention pond, and other 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
- Air Quality
- Cultural Resources
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing

- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Public Services
- Recreation
- Transportation
- Tribal and Cultural Resources
- 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.

- Biological Resources
- Utilities and Service Systems

5.3 Roles and Responsibilities

As the lead agency under the California Environmental Quality Act (CEQA), the CPUC is required to monitor the Project to ensure that the required mitigation measures and all Applicant-proposed Measures (APMs) are implemented, as described in the Initial Study/Mitigated Negative Declaration (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 minor project refinement (MPR) 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 MPR will be approved by the CPUC if it creates new significant environmental impacts. As defined in this MMCRP, an MPR 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, an MPR also may require approval by a CEQA responsible agency.

5.4 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.

5.5 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.

5.5.1 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.

5.6 General Monitoring Procedures

5.6.1 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.

5.6.2 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.

5.6.3 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.

5.6.4 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

5.6.5 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.

5.7 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.

TABLE 5-1
TABLE OF MITIGATION MEASURES

Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
Applicant Proposed Measures				
Aesthetics	**APM AES-1: Construction Site.** Construction activities will be kept as clean and inconspicuous as practical. All Project sites will be maintained in a clean and orderly state. Construction staging areas will be sited away from public view where possible. Upon completion of Project construction, Project staging and temporary work areas will be returned to approximate pre-Project conditions, including regrading of the site and revegetation or repaving of disturbed areas similar to pre-existing contours and conditions.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Aesthetics	**APM AES-2: New Source of Substantial Light or Glare Avoidance.** New security lighting at the substation will be directed on-site to reduce potential visibility from offsite locations. Nighttime lighting will be directed away from residential areas and have shields to prevent light spillover effects.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Aesthetics	**APM AES-3: Use of Galvanized Finish on Tubular Steel Poles.** Structures and equipment at the expanded substation will generally have a non-reflective finish and neutral gray color.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented during construction.
Aesthetics	**APM AES-4: Security Fence.** Security fencing at the substation will be galvanized chain link fence with a non-reflective finish.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented during construction.
Agriculture and Forestry Resources	**APM AGR-1: Landowner Coordination.** PG&E will coordinate with the landowner in advance of construction activities to minimize impacts on agricultural operations.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented during construction.
Air Quality	**APM AIR-1: Dust Control During Construction.** • Water or cover all exposed surfaces with the potential of dust-generating with coarse rock to reduce the potential for airborne dust from leaving the site; • Limit the simultaneous occurrence of more than two ground disturbing construction phases on the same area at any one time. Phase activities to reduce the amount of disturbed surfaces at any one time; • Cover all haul trucks entering/leaving the site and trim their loads as necessary; • Use wet power vacuum street sweepers to sweep all paved access roads, parking areas, staging areas, and public roads adjacent to project sites on a daily basis (at minimum) during construction. The use of dry power sweeping is prohibited;	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented during construction.

TABLE 5-1
TABLE OF MITIGATION MEASURES

Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
	• Wash off all trucks and equipment, including their tires, prior to leaving project sites; • Apply gravel or non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at project sites; • Water and/or cover soil stockpiles daily; • Limit all vehicle speeds to fifteen (15) miles per hour (mph) or less on unpaved areas; • Implement dust monitoring in compliance with the standards of the local air district; and • Halt construction during any periods when wind speeds are in excess of 50 mph.			
Air Quality	**APM AIR-2: Construction Equipment Engines.** Equipment used during construction will abide by the CARB requirement that only Tier 4 Final or cleaner engines may be added to large and medium fleets starting January 1, 2024.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	**APM BIO-1: Work area minimization**: The number of access routes, staging areas, and total area of the work sites will be kept to the minimum necessary.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	**APM BIO-2**: **Erosion and sediment control measures:** A Stormwater Pollution Prevention Plan (SWPPP) will be implemented to ensure effective erosion and sediment control measures will be in place at all times during construction.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented during construction.
Biological Resources	**APM BIO-3: Weed management:** To prevent the spread of noxious weeds, only equipment which has been washed and is free of caked on mud, dirt, and other debris, which could house plant seeds, will be allowed in the project area.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	**APM BIO-4: Avoidance of impacts to wildlife and natural habitats:** All work will be done in a manner that minimizes disturbance to wildlife and habitat.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	**APM BIO-5: Litter and trash management:** All food waste and associated containers will be disposed of in closed lid containers.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.

TABLE 5-1
TABLE OF MITIGATION MEASURES

Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
Biological Resources	**APM BIO-6: Maintenance and refueling:** No vehicle maintenance or refueling will occur within 100 feet of any agricultural or roadside ditches.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	**APM BIO-7: Spill prevention and cleanup:** Proper spill prevention and cleanup equipment will be readily available.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	**APM BIO-8: Route limitations:** Vehicles will remain on designated access roads and within designated worksites.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	**APM BIO-9: Pets and firearms:** No pets or firearms are permitted within the project area.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	**APM BIO-10: Vehicle speed limits:** Construction crews will abide by all county road speed limits.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	**APM BIO-11: Backfilling:** Prior to backfilling or placement of structures, all excavation sites (e.g., holes excavated for pole butts, trenches, etc.) will be inspected to ensure no small vertebrates have been entrapped. All excavations with a potential for entrapment of wildlife will be backfilled or fully covered at the end of the workday. Alternatively, holes or trenches will include one or more escape ramps constructed of earth fill or wooden planks no less than 10 inches wide and reaching to bottom of trench at the close of each working day.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	**APM BIO-12: Nesting Bird Impact Avoidance and Protection:** If construction work is scheduled during the nesting season (1 February through 31 August), nest detection surveys will correspond with a standard buffer for individual species in accordance with the species-specific buffers set forth in Appendix I of the PEA and will occur within 15 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 15 days between March and July. Access for ground surveys will be subject to property owner permission.	PG&E and its designated contractors to implement measure as described.	Applicant's qualified biologist to coordinate with wildlife agencies (as applicable) regarding construction buffer and inspect compliance. CPUC mitigation monitor to inspect compliance.	Up to 15 days prior to construction and during all phases of construction activities.

TABLE 5-1
TABLE OF MITIGATION MEASURES

Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
	If active nests containing eggs or young are found, the biologist will establish a species-specific nest buffer, as defined in Appendix I 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 I. The acclimation of nesting pairs 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.			
Biological Resources	**APM BIO-13: Avoidance and minimization of potential impacts on Swainson's hawk and white-tailed kite:** If construction activities are scheduled to occur during the nesting season (1 February to 31 August), a preconstruction survey for nesting Swainson's hawk and/or white-tailed kite will be conducted within 0.5 mile of the project area by a qualified biologist. If active nests are found, a qualified biologist will designate an appropriate buffer between construction activities and the nest to avoid disturbance to the nesting. A qualified biologist will monitor the active nest(s) to confirm that activities associated with the Project are not disturbing or disrupting nesting or breeding activities and adjust the buffer distance as necessary. Work within an established buffer will not proceed until the nestlings have fledged or the nest becomes inactive.	PG&E and its designated contractors to implement measure as described.	Applicant's qualified biologist to coordinate with wildlife agencies (as applicable) regarding construction buffer and inspect compliance. CPUC mitigation monitor to inspect compliance.	Up to 30 days prior to construction and during all phases of construction activities.
Biological Resources	**APM BIO-14: Biological Resources Worker Environmental Awareness Program (WEAP):** The applicant shall develop a WEAP. Prior to the start of construction, all construction crew members and contractors shall be required to attend the WEAP training presented by a qualified biologist. All construction crew members and contractors who attend the training shall sign a form indicating that they attended the training and understood the information. Follow-up training shall be conducted as needed; new workers shall attend WEAP training prior to beginning at the work site. The WEAP training shall include a review of the special status species and other sensitive resources (e.g., nesting birds) that could exist in the project area, the locations where sensitive biological resources do or may occur, the limits of the work area, applicable laws and regulations, penalties for non-compliance, and any APMs to be implemented for avoidance of these sensitive resources. Additionally, personnel shall be trained for situations where it is necessary to contact a qualified biologist (e.g., should any sensitive biological resources such as an active nest be found during construction). If sensitive resources are found, the qualified biologist	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Immediately prior to construction. To be repeated for all new personnel.

TABLE 5-1
TABLE OF MITIGATION MEASURES

Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
	shall provide guidelines for the personnel to avoid impacts on them. All WEAP participants shall receive a brochure that outlines all this information including contact information for the appropriate environmental personnel.			
Biological Resources	**APM BIO-15: Protection of Drainage Features (MRHCP Wetland-2):** A buffer of 50 feet will be established around any drainage features, including ditches. If maintaining the buffer is not practicable because the work sites are within any part of the buffered area, the field crew will implement other measures as prescribed by the biologist to minimize impacts to potential habitat. These measures may include flagging access, requiring foot access, restricting work until the dry season, or requiring a biological monitor during the activity. Activities must maintain the hydrology necessary to support the drainage features (inclusive of downstream).	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented throughout construction.
Biological Resources	**APM BIO-16: Multiple Region Habitat Conservation Plan (MRHCP) Measures.** FP-01 Conduct annual training on habitat conservation plan requirements for employees and contractors performing covered activities in the Plan Area that are applicable to their job duties and work. Tailboard and site-specific training will also be conducted prior to commencing work. FP-02 Park vehicles and equipment on pavement, existing roads, or other disturbed or designated areas (barren, gravel, compacted dirt). FP-03 Use existing access and ROW roads. Minimize the development of new access and ROW roads, including clearing and blading for temporary vehicle access in areas of natural vegetation. FP-04 Route off-road access paths and site work sites to minimize impacts on plants, shrubs, and trees, small mammal burrows, and unique natural features (e.g., rock outcrops). FP-05 Notify conservation landowners at least 2 business days prior to conducting covered activities on protected lands (state- or federally owned wildlife areas, ecological reserves, or conservation areas); more notice will be provided if practicable or if required by other permits. If the work is an emergency, as defined in PG&E's Utility Procedure ENV-8003P-01, PG&E will notify the conservation landowner within 48 hours after initiating emergency work. Although this notification is intended only to inform conservation landowner, PG&E will attempt to work with the conservation landowner to address landowner concerns. FP-06 Minimize potential for covered species to become trapped, injured, or killed in pipes, culverts, or under materials or equipment. Inspect pipes and culverts wide enough to be entered by a covered species that could inhabit the area where pipes are stored for wildlife species prior to moving pipes and culverts. Contact a biologist if a covered species or other federally listed species is suspected or discovered.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented throughout construction.

TABLE 5-1
TABLE OF MITIGATION MEASURES

Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
	FP-07 Vehicle speeds on unpaved roads will not exceed 15 miles per hour. FP-08 Prohibit trash dumping, firearms, open fires (such as barbecues), hunting, and pets (except for safety in remote locations) at work sites. FP-09 In designated State Responsibility Areas, equip all motorized equipment with federally or state-approved spark arrestors. Ensure a backpack pump filled with water and a shovel and fire-resistant mats and/or windscreens is onsite during welding. During fire "red flag" conditions as determined by the California Department of Forestry and Fire Protection, prohibit welding. Each fuel truck will carry a large fire extinguisher with a minimum rating of 40 B:C. Clear parking and storage areas of all flammable materials. FP-10 Minimize the covered activity footprint and minimize the amount of time spent at a work site to reduce the potential for take of species. FP-11 Utilize standard erosion and sediment control BMPs (pursuant to the most current version of PG&E's *Stormwater Field Manual for Construction Best Management Practices*) to prevent construction site runoff into waterways. FP-12 Stockpile soil within established work site boundaries and locate stockpiles so as not to enter water bodies, stormwater inlets, other standing bodies of water. Cover stockpiled soil prior to precipitation events. FP-13 Fit open trenches or steep-walled holes with escape ramps of plywood boards or sloped earthen ramps at each end if left open overnight. Field crews will search open trenches or steep-walled holes every morning prior to initiating daily activities to ensure wildlife is not trapped. Field crews will not handle covered species. If any covered wildlife species is found, work will stop and a biologist will be notified. A biologist with appropriate take permits will relocate the species to adjacent habitat or the species will be allowed to naturally disperse, as determined by a biologist. FP-14 If the covered activity disturbs 0.1 acre or more of habitat for a covered species in grasslands, the field crew will revegetate the area with a commercial "weed free" seed mix. FP-15 Prohibit vehicular and equipment refueling within 250 feet of the edge of wetlands, streams, or waterways. If refueling must be conducted closer to wetlands, construct a secondary containment area subject to review by an environmental field specialist and/or biologist. Maintain spill prevention and cleanup equipment in refueling areas. FP-16 Maintain a buffer of 250 feet from the edge of wetlands, ponds, or riparian areas. If maintaining the buffer is not practicable because the covered activity footprint is within the buffered area, other measures as prescribed by the biologist or the HCP administrator to minimize impacts such as			

TABLE 5-1
TABLE OF MITIGATION MEASURES

Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
	flagging access routes or paths, requiring foot access, restricting work until the dry season, or requiring a biological monitor during the activity. FP-17 Directionally fall trees away from an exclusion zone if an exclusion zone has been defined. If this is not practicable, remove the tree in sections. Avoid damage to adjacent trees to the extent practicable. Avoid removal of snags and conifers with basal hollows, crown deformities, and/or limbs more than 6 inches in diameter. FP-18 Nests with eggs and/or chicks will be avoided: contact a biologist or the Avian Protection Program Manager for further guidance. Work will be stopped until the crew can obtain clarification from a biologist or the Avian Protection Program Manager on how to proceed. FP-19 Inspect and maintain exclusion fencing installed to exclude species from work areas.			
Cultural Resources	**APM CUL-1: Inadvertent Discoveries:** If cultural resources are encountered during construction activity, PG&E and/or its contractors shall halt work in the immediate vicinity of the find. The find shall be evaluated by a qualified archaeologist before construction activity may resume. If the qualified archaeologist determines that the find may be significant and if avoidance of the find is determined to be infeasible, the archaeologist shall notify the lead agencies and shall follow approved procedures established for the treatment and mitigation of unanticipated discoveries in consultation with the lead agency. PG&E shall be responsible for the resultant mitigation costs.	PG&E and its designated contractors to implement measure as described.	Applicant's qualified archaeologist to coordinate with appropriate agencies (as applicable) regarding sensitive cultural resources and inspect compliance. CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Cultural Resources	**APM CUL-2: Human Remains**: If human remains are discovered during construction or maintenance activities, all work shall be diverted from the area of the discovery and the CPUC [California Public Utilities Commission] shall be informed immediately. The Applicant shall contact the County Coroner to determine whether or not the remains are Native American. If the remains are determined to be Native American, the Coroner will contact the NAHC [Native American Heritage Commission]. The NAHC will then identify the person or persons it believes to be the most likely descendant of the deceased Native American, who in turn would make recommendations for the appropriate means of treating the human remains and any associated funerary objects.	PG&E and its designated contractors to implement measure as described.	Applicant's qualified archaeologist to coordinate with appropriate agencies (as applicable) regarding sensitive cultural resources and inspect compliance. CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Cultural Resources	**APM CUL-3: Survey New or Modified Work Areas:** PG&E will perform cultural resources surveys prior to construction for any Project areas not yet surveyed (e.g., new or modified staging areas, or other work areas). Resources discovered during the surveys would be subject to CUL-1.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.

TABLE 5-1
TABLE OF MITIGATION MEASURES

Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
Cultural Resources	**APM CUL-4: Worker Education Training:** The following procedures will be implemented prior to the commencement of any Project-related construction activities in order to ensure that appropriate steps/actions are taken in the event that there is an inadvertent discovery of a tribal or cultural resource: • All PG&E, contractor, and subcontractor Project personnel will receive training regarding: – appropriate work practices necessary to effectively implement the APMs [Applicant-proposed measures] and to comply with the applicable environmental laws and regulations; – the potential for exposing subsurface cultural resources; – the potential for uncovering Tribal Cultural Resources; – how to recognize possible buried cultural resources; and, – actions to be taken in the event there is an inadvertent discovery as outlined in APM CUL-1 and CUL 2.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Immediately prior to construction. To be repeated for all new personnel.
Geology and Soils	**APM GS-1: Minimization of Construction above Liquefiable Soils or in Soft or Loose Soils.** PG&E will conduct geotechnical investigations prior to construction to identify liquefiable, soft, or loose soils, and implement design and civil engineering standards in accordance with the CBC and the CPUC's General Order 95.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to construction.
Geology and Soils	**APM GS-2: Unanticipated Discovery of Paleontological Resources.** If paleontological resources are discovered during construction activities, the following procedures will be followed: • Work will be stopped immediately within 100 feet of the discovery. • The designated Project inspector, PG&E Cultural Resource Specialist (CRS), and the CPUC will be contacted immediately. • The site will be protected from further impacts, including looting, erosion, or other human or natural damage. • PG&E's CRS will arrange for a Principal Paleontologist to evaluate the discovery. If the discovery is determined to be significant, PG&E will consult with the CPUC and implement appropriate measures to protect and document the paleontological resource. Examples of such measures include establishing recovery standards, preparing specimens for identification and preservation, and securing a curation agreement from the appropriate agency. • Work will not resume within 100 feet of the find until approval by the paleontologist, PG&E CRS, and the CPUC.	PG&E's qualified paleontologist and paleontologist monitor to coordinate with appropriate agencies (as applicable) regarding paleontological resources and inspect compliance.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.

TABLE 5-1
TABLE OF MITIGATION MEASURES

Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
Greenhouse Gas Emissions	**APM GHG-1: Greenhouse Gas Emissions Reduction During Construction.** • If suitable park-and-ride facilities are available near construction workers' residences, they shall be encouraged to carpool to the job site; • Maintain on-road and off-road vehicle tire pressures to manufacturer specifications. Tires will be checked and re-inflated at regular intervals; • Recycle demolition debris for reuse to the extent feasible; • Use line power instead of diesel generators at all construction sites where line power is available; and • Maintain construction equipment in properly working condition per PG&E standards.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Greenhouse Gas Emissions	**APM GHG-2: Minimize GHG Emissions.** • Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time will depend on the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warm-up times following start-up that limit their availability for use following start-up. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles may require more 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. Construction supervisors will include briefings to crews on vehicle use as part of pre-construction conferences; these briefings will include discussion of a "common sense" approach to vehicle use. • 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 50 hp [horsepower] or larger and manufactured in the year 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 designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.

TABLE 5-1
TABLE OF MITIGATION MEASURES

Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
Greenhouse Gas Emissions	**APM GHG-3: Minimize Sulfur Hexafluoride Emissions.** • Incorporate Plainfield Substation's new sulfur hexafluoride circuit breakers into PG&E's system-wide sulfur hexafluoride emission reduction program. Since 1998, PG&E has implemented a programmatic plan to inventory, track, and recycle sulfur hexafluoride inputs, and inventory and monitor system-wide sulfur hexafluoride leakage rates to facilitate timely replacement of leaking breakers. PG&E has also improved its leak detection procedures and increased awareness of sulfur hexafluoride issues within the company. X-ray technology is now used to inspect internal circuit breaker components to eliminate dismantling of breakers, reducing sulfur hexafluoride handling and accidental releases. As an active member of the [US]EPA's sulfur hexafluoride Emission Reduction Partnership for Electrical Power Systems, PG&E has remained focused on reducing sulfur hexafluoride emissions from its transmission and distribution operations. • Require that the new sulfur hexafluoride breakers at Plainfield Substation have a manufacturer's guaranteed maximum leakage rate of 0.5 percent per year or less for sulfur hexafluoride. • Maintain substation breakers in accordance with PG&E's maintenance standards. • Comply with CARB's Early Action Measures as these policies become effective.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Hazards and Hazardous Materials	**APM HAZ-1: Emergency Spill Response Equipment and Training:** Emergency spill response and cleanup kits will be available on site, as well as at the Davis PG&E Service Yard Headquarters, and readily available for the cleanup of an accidental spill. Construction crews will be trained in safe handling and cleanup responsibilities prior to the initiation of construction.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Hazards and Hazardous Materials	**APM HAZ-2: Shock Hazard:** All authorized personnel working on site will be trained according to PG&E standards during either construction or maintenance and operation. To minimize potential exposure of the public to electric shock hazards, an 8-foot-tall chain link fence topped with 1 foot of barbed wire will extend around the perimeter of the expanded substation, thus restricting site access. Warning signs will be posted to alert people of potential electrical hazards. All electric power lines will be designed in accordance with CPUC General Order 95 Guidelines for safe ground clearances established to protect the public from electric shock.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Immediately prior to construction. To be repeated for all new personnel.
Hazards and Hazardous Materials	**APM HAZ-3: Update Spill Prevention, Control, and Countermeasure (SPCC) Plan and Hazardous Materials Business Plan (HMBP):** PG&E will update the existing SPCC Plan and HMBP for Plainfield Substation to include all new equipment and on-site hazardous materials associated with the substation expansion, so that the station would meet SPCC Guidelines (40 Code of Federal Regulations 112). The retention basin will be sufficiently sized to accommodate stormwater runoff from the substation yard. The substation will also be equipped with lead-acid batteries to provide backup power for monitoring, alarm, protective	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented throughout construction.

TABLE 5-1
TABLE OF MITIGATION MEASURES

Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
	relaying, instrumentation and control, and emergency lighting during power outages. Secondary containment will be constructed around and under the battery racks, and the SPCC will address containment from a battery leak.			
Hazards and Hazardous Materials	**APM HAZ-4: Soil Testing and Disposal:** In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are removed during site grading activities or excavation activities, the excavated soil will be tested, and if contaminated above hazardous waste levels, 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.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Hydrology and Water Quality	**APM HYDRO-1: Stormwater Pollution Prevention Plan:** Because the Project involves more than an acre of soil disturbance, PG&E will prepare and implement a SWPPP [storm water pollution prevention plan] in accordance with the NPDES [National Pollutant Discharge Elimination System] Construction General Permit (see Section 3.7, *Geology and Soils*). The Best Management Practices (BMPs) described in the SWPPP would stabilize disturbed areas and prevent erosion and the release of sediment and other pollutants to waterways. A monitoring program will also be established to confirm that the prescribed BMPs are followed during Project construction. A qualified SWPPP developer (QSD) will oversee the implementation of the SWPPP and associated BMPs. The following measures are generally drawn from the permit and will be included in the SWPPP prepared for the construction of the Project: • All BMPs will be on site and ready for installation before the start of construction activities; • BMPs will be developed to prevent the acceleration of natural erosion and sedimentation rates, such as the use of silt fence and straw wattles, and to limit track out of mud and sediment into roadways during construction; and • Prior to conducting clearing activities during the wet season and before the onset of winter rains or any anticipated storm events, erosion-control measures will be installed. Temporary measures such as silt fences or wattles, which are intended to minimize sediment transport from temporarily disturbed areas, will remain in place until disturbed areas have stabilized.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented throughout construction.
Transportation	**APM TRANS-1: Traffic Management:** PG&E will obtain necessary transportation and encroachment permits from Caltrans [California Department of Transportation] and the local jurisdiction, as required, including those related to the transport of oversized loads and certain materials, and will comply with permit requirements designed to prevent excessive congestion or traffic hazards during construction. Construction activities will follow best management practices and local jurisdictional encroachment permit requirements, which may include traffic controls such as	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented throughout construction.

TABLE 5-1
TABLE OF MITIGATION MEASURES

Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
	signs, cones, and flaggers. At least 24 hours prior to implementing a lane or road closure of CR 27, PG&E will coordinate with applicable emergency service providers in the Project vicinity. PG&E will provide information regarding the anticipated date, time, and duration of the lane or road closure, and a contact number.			
Tribal Cultural Resources	**APM TCR-1: Undiscovered Potential Tribal Cultural Resources:** The following procedure shall be employed (after stopping work and following the procedure for determining eligibility in APM CUL-1) 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: • The PG&E Cultural Resource Specialist 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. • The PG&E Cultural Resource Specialist 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.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Wildfire	**APM FIRE-1: Construction Fire Prevention Plan:** PG&E will implement the following fire prevention practices at active construction sites: • During Red Flag Warning events, as issued daily by the National Weather Service, all construction activities will cease, with an exception for transmission line testing, repairs, unfinished work, or other specific activities which may be allowed if the facility/equipment poses a greater fire risk if left in its current state. • All construction and maintenance crews and inspectors will be provided with radio and cellular telephone access that is operational in all work areas and access routes to allow for immediate reporting of fires. Communication pathways and equipment will be tested and confirmed operational each day prior to initiating construction activities at each work site. All fires will be reported to the fire agencies with jurisdiction in the area immediately upon discovery of the ignition. • Construction and maintenance personnel will be trained in fire-safe actions, initial attack firefighting, and fire reporting. Construction personnel will be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.

TABLE 5-1
TABLE OF MITIGATION MEASURES

Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
	• All construction and maintenance personnel will carry a laminated card and be provided a hard hat sticker that lists pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on laminated contact cards and hard hat stickers will be updated as needed and redistributed to all construction personnel prior to the day the information change goes into effect. • Construction and maintenance personnel will have fire suppression equipment on all construction vehicles and will be required to park vehicles away from dry vegetation. PG&E will coordinate with applicable local fire departments prior to construction activities to determine the appropriate amounts of fire equipment to be carried on vehicles and, should a fire occur, to coordinate fire suppression activities. • Water tanks and/or water trucks will be sited or available at active Project sites for fire protection during construction.			
CEQA Mitigation Measures				
Biological Resources	**MM BIO-1: Wildlife-Friendly Design Features.** The design of new overhead transmission and communications lines and structures will follow the most recent Avian Power Line Interaction Committee guidance (currently APLIC 2006) at the time of Project approval to reduce the potential for avian injury and mortality from collisions and electrocution.	Applicant and its contractor to implement measure as described.	None.	Prior to Project approval.
Utilities and Service Systems	**MM US-1: Solid Waste Diversion Plan:** The Applicant shall prepare and submit a diversion plan to the CPUC and Yolo County for review and approval before the start of construction. The solid waste diversion plan will outline how the Applicant will sort, measure, and record the disposal of solid waste to ensure that 50 percent of inert materials will be recycled, reused, or otherwise diverted from the landfill. The plan will detail reporting requirements to the CPUC and Yolo County. Measures in the plan will include but not be limited to the following: • Provision of space and/or bins for appropriate storage of recyclable materials on-site. • Establishment of a recyclable materials pick-up area. • Development of a recordation system that details and quantifies the amount of solid waste generated during construction, solid waste recycled, and solid waste delivered to the solid waste disposal facility. If it is determined, through consultation with Yolo County, that PG&E's proposed construction activities are exempt or otherwise not subject to the County's solid waste diversion requirements, documentation of the consultation shall be provided to CPUC in lieu of the mitigation measure's solid waste diversion plan and reporting requirements.	Applicant and its contractor to implement measure as described.	Applicant to track and maintain compliance.	During construction.

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Appendix A

Special-Status Species Considered in the Project Area

TABLE A-1
SPECIAL-STATUS SPECIES CONSIDERED IN THE PROJECT AREA

Organism	Taxonomy	Common Name *Scientific Name*	Status Federal/ State	CNPS Status	Other Status	Habitat	Potential to Occur
Plants	Dicots	alkali milk-vetch *Astragalus tener var. tener*	-/-	1B.2	-	Species is found in alkali playa, valley and foothill grassland, and vernal pools. Identification/Survey period: March-June	This species has no potential to occur. Vernal pools and grassland complexes are not present on the Project site. Three CNDDB records were recorded within five miles of the Project site.
		brittlescale *Atriplex depressa*	-/-	1B.2	-	Species is found in chenopod scrub, meadows and seeps, playas, valley and foothill grassland, and vernal pools. Identification/Survey period: April-October	This species has no potential to occur. Vernal pools, meadows and seeps are not present on the Project site. Three CNDDB records were recorded with five miles of the Project site.
		Ferris' milk-vetch *Astragalus tener var. ferrisiae*	-/-	1B.1	-	Species is found in meadows and seeps and valley and foothill grassland. Identification/Survey period: April-May	This species has a low potential to occur. Habitat may be suitable in ditches. One CNDDB record was recorded within five miles of the Project site.
		heartscale *Atriplex cordulata var. cordulata*	-/-	1B.2	-	Species is found in chenopod scrub, valley and foothill grassland, and meadows and seeps. Identification/Survey period: April-October	This species has a low potential to occur. Habitat may be suitable in ditches. One CNDDB record was recorded within five miles of the Project site.
		pappose tarplant *Centromadia parryi ssp. parryi*	-/-	1B.2	-	Species is found in chaparral, coastal prairie, meadows and seeps, coastal salt marsh, and valley and foothill grassland. Identification/Survey period: May-November	This species has no potential to occur. The habitat is likely not suitable. No CNDDB records were found within five miles.
		palmate-bracted bird's-beak *Chloropyron palmatum*	FE/CE	1B.1	-	Species is found in chenopod scrub, and valley and foothill grassland. Identification/Survey period: May-October	This species has a low potential to occur. The habitat may be suitable in ditches. One CNDDB record was found within five miles.
		recurved larkspur *Delphinium recurvatum*	-/-	1B.2	-	Chenopod scrub, valley and foothill grassland, cismontane woodland. Identification/Survey period: March-June	This species has no potential to occur. The habitat is likely not suitable. No CNDDB records were found within 10 miles.

TABLE A-1
SPECIAL-STATUS SPECIES CONSIDERED IN THE PROJECT AREA

Organism	Taxonomy	Common Name *Scientific Name*	Status Federal/ State	CNPS Status	Other Status	Habitat	Potential to Occur
		dwarf downingia *Downingia pusilla*	-/-	2B.2	-	Species found in valley and foothill grassland (mesic sites), and vernal pools. Identification/Survey period: March-May	This species has no potential to occur. The habitat is likely too dry. No CNDDB records were found within 10 miles.
		Jepson's coyote-thistle *Eryngium jepsonii*	-/-	1B.2	-	Species found in vernal pools, and valley and foothill grassland. Identification/Survey period: April-August	This species has no potential to occur. The habitat is likely too dry. No CNDDB records were found within 10 miles.
		San Joaquin spearscale *Extriplex joaquinana*	-/-	1B.2	-	Chenopod scrub, alkali meadow, playas, valley and foothill grassland. Identification/Survey period: April-October	This species has a low potential to occur. The habitat may be suitable in ditches. Five CNDDB records were recorded with five miles of the Project site with the nearest record being 3.5 miles from the Project site.
		woolly rose-mallow *Hibiscus lasiocarpos var. occidentalis*	-/-	1B.2	-	Marshes and swamps (freshwater). Identification/Survey period: June-September	This species has no potential to occur. The habitat is likely not suitable, no marshes or swamps on site. No CNDDB records were found within five miles.
		Heckard's pepper-grass *Lepidium latipes var. heckardii*	-/-	1B.2	-	Valley and foothill grassland, vernal pools. Identification/Survey period: March-May	This species has no potential to occur. The habitat is likely not suitable, no grassland or vernal pools. Three CNDDB records were recorded with five miles of the Project site.
		Mason's lilaeopsis *Lilaeopsis masonii*	-/CR	1B.1	-	Marshes and swamps, riparian scrub. Identification/Survey period: April-November	This species has no potential to occur. The habitat is likely not suitable, no marshes or swamps on site. No CNDDB records were found within 10 miles.
		Baker's navarretia *Navarretia leucocephala ssp. bakeri*	-/-	1B.1	-	Cismontane woodland, meadows and seeps, vernal pools, valley and foothill grassland, lower montane coniferous forest. Identification/Survey period: April-June	This species has no potential to occur. The habitat is likely not suitable. No CNDDB records were found within 10 miles.

TABLE A-1
SPECIAL-STATUS SPECIES CONSIDERED IN THE PROJECT AREA

Organism	Taxonomy	Common Name *Scientific Name*	Status Federal/ State	CNPS Status	Other Status	Habitat	Potential to Occur
		bearded popcornflower *Plagiobothrys hystriculus*	-/-	1B.1	-	Vernal pools, valley and foothill grassland. Identification/Survey period: April-May	This species has no potential to occur. Habitat is likely not suitable, no grassland or vernal pools. No CNDDB records were found within 10 miles.
		Keck's checkerbloom *Sidalcea keckii*	FE/-	1B.1	-	Cismontane woodland, valley and foothill grassland. Identification/Survey period: April-May(June)	This species has no potential to occur. Habitat is likely not suitable. One CNDDB record was found within five miles.
		saline clover *Trifolium hydrophilum*	-/-	1B.2	-	Marshes and swamps, valley and foothill grassland, vernal pools. Identification/Survey period: April-June	This species has no potential to occur. Habitat is likely not suitable, no marshes or swamps on site. Two CNDDB records were found within five miles.
	Monocots	adobe-lily *Fritillaria pluriflora*	-/-	1B.2	-	Chaparral, cismontane woodland, valley and foothill grassland. Identification/Survey period: February-April	This species has no potential to occur. Habitat is likely not suitable. No CNDDB records were found within 10 miles.
		Colusa grass *Neostapfia colusana*	FT/CE	1B.1	-	Vernal pools. Identification/Survey period: May-August	This species has no potential to occur. Habitat is likely not suitable, no vernal pools on site. No CNDDB records were found within 10 miles.
		California alkali grass *Puccinellia simplex*	-/-	1B.2	-	Meadows and seeps, chenopod scrub, valley and foothill grasslands, vernal pools. Identification/Survey period: March-May	This species has no potential to occur. Habitat is likely not suitable. Seven CNDDB records were found within five miles.
		Crampton's tuctoria or Solano grass *Tuctoria mucronata*	FE/CE	1B.1	-	Vernal pools, valley and foothill grassland. Identification/Survey period: April-August	This species has no potential to occur. Habitat is likely not suitable, no vernal pools or grassland. No CNDDB records were found within 10 miles.

TABLE A-1
SPECIAL-STATUS SPECIES CONSIDERED IN THE PROJECT AREA

Organism	Taxonomy	Common Name *Scientific Name*	Status Federal/ State	CNPS Status	Other Status	Habitat	Potential to Occur
Wildlife	Amphibians	California tiger salamander - central California DPS *Ambystoma californiense pop. 1*	FT/CT	-	-	Species lives in vacant or mammal-occupied burrows throughout most of the year in grassland, savanna, or open woodland habitats.	This species has no potential to occur. Habitat is likely not suitable, as agricultural land is not suitable for this species. There are likely no mammal burrows on site. One CNDDB record was found within five miles, which was located near a city owned wildlife habitat area managed by the Yolo Audubon Society.
		western spadefoot *Spea hammondii*	-/-	-	CDFW_SSC-Species of Special Concern	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands.	This species has no potential to occur. Habitat is likely not suitable, because water does not pool on site for this species to breed. No CNDDB records were found within five miles.
	Birds	burrowing owl *Athene cunicularia*	-/-	-	CDFW_SSC-Species of Special Concern	Species is found in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	This species has a low potential to occur based on low number of burrows observed.
		grasshopper sparrow *Ammodramus savannarum*	-/-	-	CDFW_SSC-Species of Special Concern	Species is found in dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes.	This species has no potential to occur. Habitat is likely not suitable. No CNDDB records were found within 10 miles.
		Swainson's hawk *Buteo swainsoni*	-/CT	-	-	Species breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees.	Habitat is likely only suitable for foraging, as there are no trees on site for nesting. Many CNDDB records were found within five miles. Three records were found within a 0.25 buffer radius of the Project area.
		tricolored blackbird *Agelaius tricolor*	-/CT	-	CDFW_SSC-Species of Special Concern	Species is mostly colonial and most numerous in Central Valley and vicinity. Species is largely endemic to California.	Project site is likely only suitable for foraging, but not for nesting as the site lacks suitable wetland plants that provide structure and support to their nests. Six CNDDB records were found within five miles.
		mountain plover *Charadrius montanus*	-/-	-	CDFW_SSC-Species of Special Concern	Species is found in short grasslands, freshly plowed fields, newly sprouting grain fields, and sometimes sod farms.	This species has a low potential to occur. Habitat is suitable. No CNDDB records were found within five miles.

TABLE A-1
SPECIAL-STATUS SPECIES CONSIDERED IN THE PROJECT AREA

Organism	Taxonomy	Common Name *Scientific Name*	Status Federal/ State	CNPS Status	Other Status	Habitat	Potential to Occur
		western snowy plover *Charadrius nivosus nivosus*	FT/-	-	CDFW_SSC-Species of Special Concern	Species is found on sandy beaches, salt pond levees, and shores of large alkali lakes.	This species has no potential to occur. Habitat is likely not suitable, no beaches. No CNDDB records were found within five miles.
		northern harrier *Circus hudsonius*	-/-	-	CDFW_SSC-Species of Special Concern	Species is found in coastal salt and freshwater marsh. Species nests and forages in grasslands, from salt grass in desert sink to mountain cienagas.	This species has a low potential to occur. The habitat is likely not suitable, as there is no major aquatic habitat on site, but they can still nest in grasslands and grainlands. 1 CNDDB records was found within five miles.
		western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT/CE	-	-	Species is a riparian forest nester, along the broad, lower flood-bottoms of larger river systems.	This species has no potential to occur. Habitat is likely not suitable, because there is no riparian forest on site. No CNDDB records were found within five miles.
		white-tailed kite *Elanus leucurus*	-/-	-	CDFW_FP-Fully Protected	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland.	This species has a low potential to occur. Habitat is likely not suitable, because there are no trees on site, but the site could potentially provide foraging habitat. 2 CNDDB records were found within five miles.
		merlin *Falco columbarius*	-/-	-	-	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms and ranches.	This species has no potential to occur. Habitat is likely not suitable, no coast on site. No CNDDB records were found within five miles.
		song sparrow ("Modesto" population) *Melospiza melodia pop. 1*	-/-	-	CDFW_SSC-Species of Special Concern	Central lower basin of Great Valley, from Colusa County south to Stanislaus County and east of Suisun Marshes. Breeds chiefly below 200 feet elevation.	This species has no potential to occur. Habitat is likely not suitable. No CNDDB records were found within 10 miles.
		white-faced ibis *Plegadis chihi*	-/-	-	-	Shallow freshwater marsh.	This species has no potential to occur. Habitat is likely not suitable, no marsh on site. No CNDDB records were found within five miles.

TABLE A-1
SPECIAL-STATUS SPECIES CONSIDERED IN THE PROJECT AREA

Organism	Taxonomy	Common Name *Scientific Name*	Status Federal/ State	CNPS Status	Other Status	Habitat	Potential to Occur
		bank swallow *Riparia riparia*	-/CT	-	-	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert.	This species has no potential to occur. Habitat is likely not suitable, because there is no riverbank habitat on site. One CNDDB record was found within five miles.
	Crustaceans	Conservancy fairy shrimp *Branchinecta conservatio*	FE/-	-	-	Species is endemic to the grasslands of the northern two-thirds of the Central Valley and found in large, turbid pools.	This species has no potential to occur. Habitat is likely not suitable, because the site lacks suitable vernal pool or seasonal wetland habitat. No CNDDB records were found within 10 miles.
		vernal pool fairy shrimp *Branchinecta lynchi*	FT/-	-	-	Species is endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools.	This species has no potential to occur. Habitat is likely not suitable, because the site lacks suitable vernal pool or seasonal wetland habitat. No CNDDB records were found within five miles.
		vernal pool tadpole shrimp *Lepidurus packardi*	FE/-	-	-	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water.	This species has no potential to occur. Habitat is likely not suitable, because the site lacks suitable vernal pool or seasonal wetland habitat. Three CNDDB records were found within five miles.
	Fish	green sturgeon - southern DPS *Acipenser medirostris pop. 1*	FT/-	-	-	Species exhibits spawning site fidelity and spawns in the Sacramento, Feather and Yuba Rivers. Species' presence in upper Stanislaus and San Joaquin Rivers may indicate spawning. Non-Spawning adults occupy marine/estuarine waters.	This species has no potential to occur. Habitat is not suitable, because the site lacks suitable vernal pool or seasonal wetland habitat. No CNDDB records were found within 10 miles.
		steelhead - Central Valley DPS *Oncorhynchus mykiss irideus pop. 11*	FT/-	-	-	Populations in the Sacramento and San Joaquin rivers and their tributaries.	This species has no potential to occur. Habitat is not suitable, because the site lacks suitable vernal pool or seasonal wetland habitat. No CNDDB records were found within 10 miles.
		Sacramento splittail *Pogonichthys macrolepidotus*	-/-	-	CDFW_SSC-Species of Special Concern	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay and associated marshes.	This species has no potential to occur. Habitat is not suitable, and the site is located outside of its known range. No CNDDB records were found within 10 miles.

TABLE A-1
SPECIAL-STATUS SPECIES CONSIDERED IN THE PROJECT AREA

Organism	Taxonomy	Common Name *Scientific Name*	Status Federal/ State	CNPS Status	Other Status	Habitat	Potential to Occur
		longfin smelt *Spirinchus thaleichthys*	FE/CT	-	-	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column.	This species has no potential to occur. Habitat is not suitable, as there is not sufficient water habitat on site. No CNDDB records were found within 10 miles.
	Insects	Crotch bumble bee *Bombus crotchii*	-/-	-	-	Species is found from Coastal California east to the Sierra-Cascade crest and south into Mexico.	This species has no potential to occur. Habitat is likely not suitable. No CNDDB records were found within five miles.
		monarch - California overwintering population *Danaus plexippus plexippus pop. 1*	FC/-	-	-	Species' winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico.	This species has no potential to occur. Habitat is likely not suitable, because there are no trees on site for wintering, no plants on site that could be used by larvae or nectar plants for adults. No CNDDB records were found within 10 miles.
		valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT/-	-	-	Occurs only in the Central Valley of California, in association with blue elderberry (Sambucus mexicana).	This species has no potential to occur. No habitat for this species is present in the project site. There were no elderberry shrubs observed. One CNDDB record was found within five miles.
	Mammals	pallid bat *Antrozous pallidus*	-/-	-	CDFW_SSC-Species of Special Concern	Species is found in deserts, grasslands, shrublands, and woodlands and forests. Species is most common in open, dry habitats with rocky areas for roosting.	This species has a low potential to occur. Habitat can be suitable, roosting habitat potentially on site. Two CNDDB records were found within five miles.
		western red bat *Lasiurus blossevillii*	-/-	-	CDFW_SSC-Species of Special Concern	Roosts primarily in trees, 2-40 ft above ground, from sea level up through mixed conifer forests.	This species has no potential to occur. Habitat is likely not suitable, no trees on site. No CNDDB records were found within 10 miles.
		American badger *Taxidea taxus*	-/-	-	CDFW_SSC-Species of Special Concern	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	This species has a low potential to occur. Habitat is likely suitable. Three CNDDB records were found within five miles.
	Reptiles	northwestern pond turtle *Emys marmorata*	-/-	-	CDFW_SSC-Species of Special Concern	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation.	This species has a low potential to occur based on poor habitat conditions to support the species.. No CNDDB records within five miles.

TABLE A-1
SPECIAL-STATUS SPECIES CONSIDERED IN THE PROJECT AREA

Organism	Taxonomy	Common Name *Scientific Name*	Status Federal/ State	CNPS Status	Other Status	Habitat	Potential to Occur
		giant gartersnake *Thamnophis gigas*	FT/CT	-	-	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches.	This species has a low potential to occur based on lack of suitable habitat conditions. One CNDDB record is within five miles and very many with 10 miles.

KEY TO STATUS CODES:

Federal

Candidate = FC
Delisted = FD
Endangered = FE
None = -
Proposed Endangered = FPE
Proposed Threatened = FPT
Threatened = FT

State

Candidate Endangered = CCE
Candidate Threatened = CCT
Delisted = CD
Endangered = CE
None = -
Rare = CR
Threatened = CT

Other

CNPS Rank Categories:
1A = Plants presumed extirpated in California and either rare or extinct elsewhere
1B = Plants Rare, Threatened, or Endangered in California and elsewhere
2A = Plants presumed extirpated in California, but more common elsewhere
2B = Plants Rare, Threatened, or Endangered in California, but more common elsewhere
3 = Plants about which more information is needed - A Review List
4 = Plants of limited distribution - A Watch List

CNPS Code Extensions:
.1 = Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)
.2 = Fairly endangered in California (20U+002d80% occurrences threatened)
.3 = Not very endangered in California (less than 20% of occurrences threatened or no current threats known)

SOURCES: CNPS 2024; USFWS 2024; CDFW 2024

Appendix B
Fuel Use Calculations

Equipment	Estimated Horsepower	Total Hours	Load Factor	Fuel Consumption Rate (bhp hr/gal)	(HP * total hours * load factor) /fuel consumption rate
Substation Civil Construction– Yard Expansion/Fencing (6 months)					
Crew Cab Truck(1)	247	1,170	0.4	18.5	6248.432432
Forklift	97	780	0.37	18.5	1513.2
Concrete Truck (2)	402	1,040	0.38	18.5	8587.589189
D-3 Bulldozer	247	520	0.4	18.5	2777.081081
Gradall	187	520	0.41	18.5	2155.048649
Water Truck (2)	402	1,300	0.38	18.5	10734.48649
Compactor	8	1,600	0.43	18.5	297.5135135
Road Grader, Six Wheel	187	325	0.41	18.5	1346.905405
Elevating Scraper	367	525	0.48	18.5	4999.135135
Large Compactor Roller	8	325	0.43	18.5	60.43243243
2-ton Flatbed Truck (2)	402	1,040	0.38	18.5	8587.589189
Backhole	172	520	0.42	18.5	2030.52973
Portable Generator	84	1,560	0.74	18.5	5241.6
Large Excavator Drill	221	520	0.5	18.5	3105.945946
Loader	203	160	0.36	18.5	632.0432432
TSP Delivery (7 months)					
40-ton Crane	231	16	0.29	18.5	57.9372973
Tractor Trailer	172	32	0.42	18.5	124.9556757
Material Delivery (7 months)					
Crane with 120’ Boom	231	48	0.29	18.5	173.8118919
Fork Lift	89	16	0.2	18.5	15.39459459
Conductor Installation (includes old conductor removal) (7 months)					
40-ton Crane	231	160	0.29	18.5	579.372973
Bucket Truck	158	320	0.38	18.5	1038.52973
Boom Truck	158	320	0.38	18.5	1038.52973
Crew-cab Truck (1)	158	320	0.38	18.5	1038.52973
Foreman Pickup Truck (1)	158	320	0.38	18.5	1038.52973
Forklift	247	160	0.4	18.5	854.4864865
TSP Foundations (7 months)					
Construction Digger	402	120	0.42	18.5	1095.178378
Backhoe	97	120	0.37	18.5	232.8
Dump Truck	402	120	0.38	18.5	990.8756757
Foreman Pickup Truck (1)	402	120	0.38	18.5	990.8756757
Crew-cab Truck (1)	402	120	0.38	18.5	990.8756757
Concrete Truck (2)	402	120	0.38	18.5	990.8756757
Concrete Pump	172	120	0.38	18.5	423.9567568
TSP Installation (Substation)					
40-ton Crane	402	160	0.29	18.5	1008.259459
Bucket Truck	402	320	0.38	18.5	2642.335135
Foreman Pickup Truck (1)	402	320	0.38	18.5	2642.335135
Crew-cab Truck (1)	402	320	0.38	18.5	2642.335135

Substation Construction – Replace Electric Equipment and Install Stormwater Pond (15 Months)					
Crew Cab Truck (1)	402	2,925	0.38	18.5	24152.59459
Forklift	63	1,500	0.31	18.5	1583.513514
Concrete Truck (2)	402	1,040	0.38	18.5	8587.589189
D-3 Bulldozer	247	800	0.4	18.5	4272.432432
Gradall	89	1,300	0.2	18.5	1250.810811
Water Truck (2)	402	2,750	0.38	18.5	22707.56757
Compactor	8	4,000	0.43	18.5	743.7837838
Road Grader, Six Wheel	187	625	0.2	18.5	1263.513514
Elevating Scraper	367	625	0.48	18.5	5951.351351
Large Compactor Roller	8	1,250	0.43	18.5	232.4324324
2-ton Flatbed Truck (2)	402	2,600	0.38	18.5	21468.97297
Backhole	97	520	0.37	18.5	1008.8
Portable Generator	84	3,300	0.38	18.5	5693.837838
Large Excavator Drill	221	520	0.38	18.5	2360.518919
Loader	65	1,100	0.37	18.5	1430
Mobile Trailers	63	3,000	0.31	18.5	3167.027027
Aerial Manlifts (60 feet)	231	1,500	0.29	18.5	5431.621622
30-ton Crane	8	3,000	0.43	18.5	557.8378378
Small Compactors	158	3,000	0.38	18.5	9736.216216
Mini Excavators					
Substation Civil - Final Grading (3 Months)					
Crew Cab Truck (1)	402	585	0.38	18.5	4830.518919
D-3 Bulldozer	247	160	0.4	18.5	854.4864865
Water Truck (2)	402	500	0.38	18.5	4128.648649
Compactor	8	640	0.43	18.5	119.0054054
Road Grader, Six Wheel	187	100	0.2	18.5	202.1621622
Elevating Scraper	367	150	0.48	18.5	1428.324324
Large Compactor Roller	8	100	0.43	18.5	18.59459459
2-ton Flatbed Truck (2)	402	520	0.38	18.5	4293.794595
Backhole	97	160	0.37	18.5	310.4
Loader	97	80	0.37	18.5	155.2

1 Fuel Type: Gas.
2 Heavy haul truck

Diesel from haul truck trips
90,087.11
Diesel fuel from off-road construction equipment
82,207.73
Total Diesel
172,294.84

Total Gasoline
44,575.03

Appendix B

Proof of Newspaper Postings and Draft IS/MND and NOI Mailings

STATE OF CALIFORNIA **GAVIN NEWSOM, Governor**

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

To: **State Clearinghouse, Responsible and Trustee Agencies, Property Owners & Interested Parties**

From: **Mr. Tommy Alexander, CPUC Project Manager**

Subject: **NOTICE OF INTENT TO ADOPT AN INITIAL STUDY/MITIGATED NEGATIVE DECLARATION (IS/MND)**
Pacific Gas & Electric Company Plainfield Substation Upgrade Project (A-24-06-008)

Date: **April 9, 2025**

The California Public Utilities Commission (CPUC) has prepared a Draft Initial Study/Mitigated Negative Declaration (Draft IS/MND) under the California Environmental Quality Act (CEQA) for consideration of Pacific Gas & Electric Company's (PG&E's) application (A-24-06-008) to construct, operate, and maintain the Plainfield Substation Upgrade Project (the Project). The Draft IS/MND details the Project; evaluates and describes the potential environmental impacts associated with the Project's construction, operation, and maintenance; identifies impacts that could be significant; and presents mitigation measures that, if adopted by the CPUC, would avoid or minimize these impacts.

Description of the Project

PG&E proposes to expand the existing Plainfield Substation to improve energy transmission reliability by addressing low-voltage concerns and overload conditions. The Plainfield Substation is located in unincorporated Yolo County, midway between the cities of Woodland and Davis, approximately 1.5 west of California State Route 113 (see attached figure). It serves approximately 58,000 residences and businesses, including commercial agricultural operations. The Project would be on, and surrounded by, agricultural lands. Currently, the existing substation is equipped with two transformers, rated at 60/12 kilovolt (kV) 7.5 megavolt amperes (MVA) and 115x60/12 kV 30 MVA, respectively. The substation expansion consists of installing two new 5-megavolt ampere reactive power (MVAR) shunt capacitor banks and related equipment and project components that would boost the voltage of the 60 kV lines to acceptable levels.

Project components include:

- Upgrades to the existing 60 kV bus.
- Installation of two new shunt capacitor banks.
- Modifications to the existing Spill Prevention, Control, and Countermeasure containment system.
- Installation of a stormwater retention pond.
- Installation of a new station battery enclosure and a new, larger modular protection automation and control enclosure.
- Replacement and installation of tubular steel poles and all-aluminum conductor power lines.
- New fencing, lighting, and access road improvements.

Public Comment on the Draft IS/MND.

The Draft IS/MND is available for a 30-day public comment period: **April 9, 2025, through May 9, 2025.** The public may submit written comments and concerns regarding the Project and the adequacy of the Draft IS/MND. Comments on the Draft IS/MND must be postmarked or received by e-mail or voicemail no later than **May 9, 2025,** at 5:00 pm. Please include your name, address, and telephone number in your correspondence.

Written comments on the Draft IS/MND should be sent to:

California Public Utilities Commission
Attn. Plainfield Substation/Tommy Alexander
505 Van Ness Avenue San Francisco, CA 94102
Plainfield@esassoc.com

Comments may be emailed to Plainfield@esassoc.com, or by voicemail by calling (510) 463-6731.

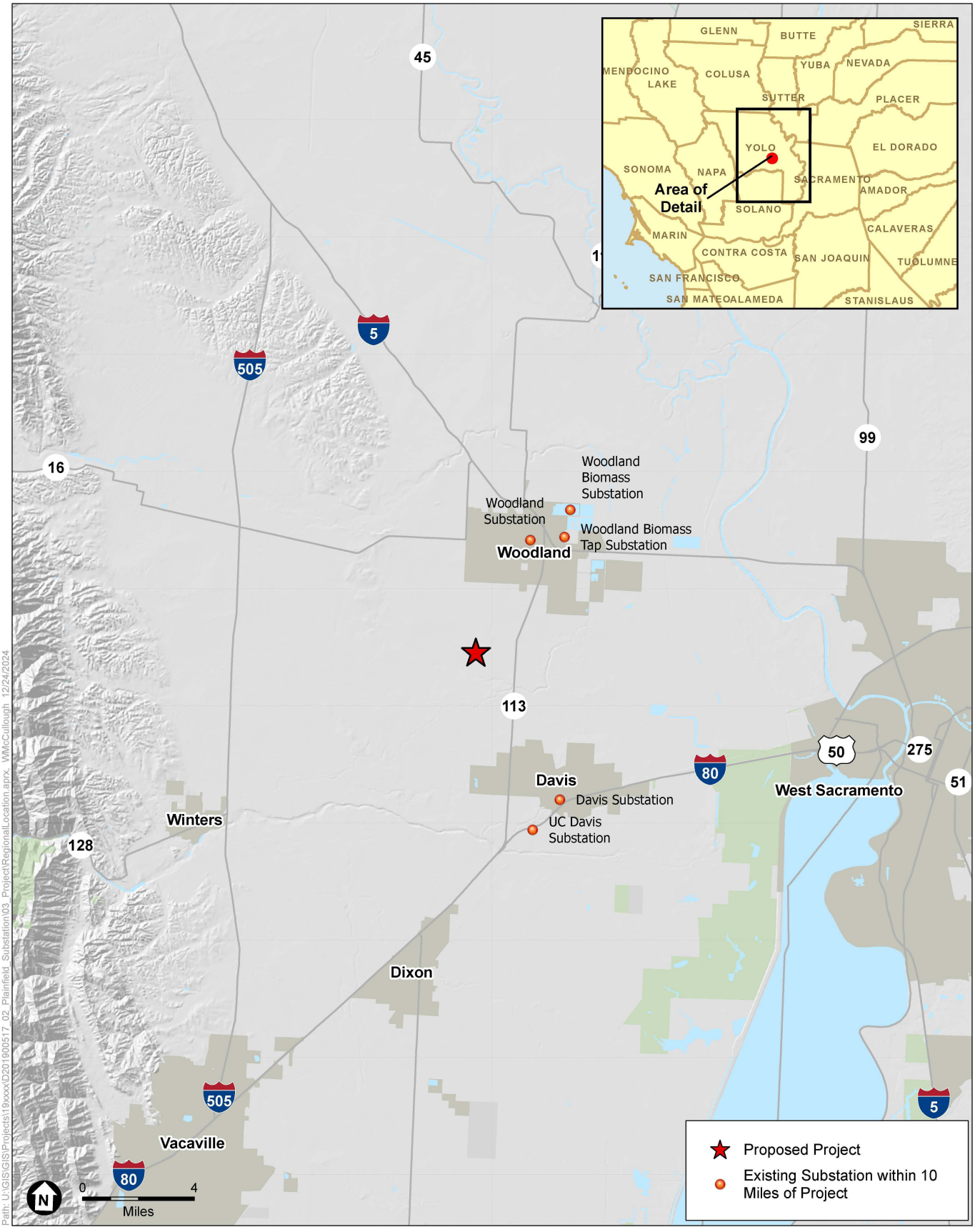
Availability of Draft IS/MND.

Copies of the Draft IS/MND will be available for public review on the CPUC's Project website:

https://ia.cpuc.ca.gov/environment/info/esa/plainfield/index.html

This website will be used to post all public documents during the environmental review process. Printed copies of the Draft IS/MND may be requested by e-mail at Plainfield@esassoc.com.

REMINDER: Draft IS/MND comments will be accepted by e-mail or regular mail postmarked through May 9th. Please include your name, address, and telephone number. Note that comments become public record.



SOURCE: ESRI, 2024

Plainfield Substation Upgrade Project

Figure
Project Location

ESA

TABLE 1
AGENCIES AND APPLICANT

Contact Name and Title	Agency/Organization	Address
Local Agencies		
Gerardo Pinedo, Chief Administrative Officer	Yolo County	625 Court Street, Woodland, CA 95695
Mary Vixie Sandy, District 3 Supervisor	Yolo County	625 Court Street, Woodland, CA 95695
Dotty Pritchard, Chief of Staff, District 3	Yolo County	625 Court Street, Woodland, CA 95695
Kristen Wraithwall, Sustainability and Climate Action Manager	Yolo County	292 West Beamer Street, Woodland, CA 95695
Todd Riddiough, Director of Public Works	Yolo County	292 West Beamer Street, Woodland, CA 95695
Julie Dachtler, Clerk of the Board	Yolo County Board of Supervisors	625 Court Street, Room 204, Woodland, CA 95695
Stephanie Cormier, Planning Manager	Yolo County Planning Division	292 West Beamer Street, Woodland, CA 95695
Brian Sala, Planning Commissioner District 3	Yolo County Planning Division	292 West Beamer Street, Woodland, CA 95695
Mark Christison, Civil Engineer	Yolo County	625 Court Street, Woodland, CA 95695
Jair Bautista, Systems Engineer	Yolo County	625 Court Street, Woodland, CA 95695
Dean Becker, Systems Engineer	Yolo County	625 Court Street, Woodland, CA 95695
Denise Sagara, Executive Director	Yolo County Farm Bureau	P O Box 1556, Woodland, CA 95776
Ken Hiatt, City Manager	City of Woodland	300 First Street, 2nd floor, Woodland, CA 95695
Jennifer Robinson, Secretary to the City Manager	City of Woodland	300 First Street, 2nd floor, Woodland, CA 95695
Craig Locke, Director of Public Works	City of Woodland	655 N Pioneer Avenue, Woodland, CA 95695
Megan Meier, Senior Planner	City of Woodland Planning Division	300 First Street, 2nd floor, Woodland, CA 95695
Will Arnold, Mayor and City Council District 2	City of Davis	23 Russell Blvd, Davis, CA 95616
Michael Webb, City Manager	City of Davis	23 Russell Blvd, Davis, CA 95616
Muriel Clemente, Administrative Services Manager	Yolo-Solano Air Quality Management District	1947 Galileo Court, Davis, CA 95618

Contact Name and Title	Agency/Organization	Address
Dara Dungworth, Principal Planner	City of Davis Planning and Zoning	23 Russell Blvd, Davis, CA 95616
Lanette Espinoza, Clerk of the Board	Sacramento Area Council of Governments	1415 Laurel Street, Davis, CA 95614
State Agencies		
Eric Knight, Siting, Transmission, & Environmental Protection Division	California Energy Commission	715 P St., Sacramento, CA 95814
Drew Bohan, Executive Director	California Energy Commission	715 P St., Sacramento, CA 95814
Sergio Aceves, District 3 Director	California Department of Transportation	703 B Street, Marysville, CA 95901
Jen Benedet, Office of Communications	California Department of Fish and Wildlife	715 P St., Sacramento, CA 95814
Morgan Kilgour, Regional Manager, Bay Delta Region (Region 2)	California Department of Fish and Wildlife	1701 Nimbus Road, Rancho Cordova, CA 95670
Craig Weightman, Environmental Program Manager	California Department of Fish and Wildlife	2825 Cordelia Rd., Suite 100, Fairfield, CA 94534
Central Valley Region Contact	State Water Resources Control Board	11020 Sun Center Drive, Suite 200, Rancho Cordova, CA 95670
Steven Cliff, Executive Officer	California Air Resources Board	P.O. Box 2815, Sacramento, CA 95814
Tommy Alexander, Project Manager	California Public Utilities Commission	505 Van Ness Ave., San Francisco, CA 94102
Michelle Wilson, Program and Project Supervisor	California Public Utilities Commission	505 Van Ness Ave., San Francisco, CA 94102
David Peck, California Public Advocates Office	California Public Utilities Commission	505 Van Ness Ave., San Francisco, CA 94102
Benjamin Hoffman, California Public Advocates Office	California Public Utilities Commission	505 Van Ness Ave., San Francisco, CA 94102
Jerry Melcher, California Public Advocates Office	California Public Utilities Commission	505 Van Ness Ave., San Francisco, CA 94102
Patrick Huber, California Public Advocates Office	California Public Utilities Commission	505 Van Ness Ave., San Francisco, CA 94102
Chloe Lukins, California Public Advocates Office	California Public Utilities Commission	505 Van Ness Ave., San Francisco, CA 94102

Contact Name and Title	Agency/Organization	Address
Federal Agencies		
Megan Snow, Public Affairs Officer	United States Fish and Wildlife Service	2800 Cottage Way, Room W-2605, Sacramento Fish and Wildlife Office, Sacramento CA, 95825-1846
Sacramento District Contact	USACOE Sacramento District	1325 J Street -- Room 1640, Sacramento District within the South Pacific Division, Sacramento CA, 95814
Erik Amend, Western-Pacific Regional Administrator	Western-Pacific Regional Administrator	777 S. Aviation Blvd, Suite 150, El Segundo, CA, 90245
Cathryn Carson, Manager Western-Pacific Region Airports Office Los Angeles Airports District Office	Manager Western-Pacific Region Airports Office Los Angeles Airports District Office	777 S. Aviation Blvd, Suite 150, El Segundo, CA, 90245
Frank Blackett, Regional Engineer	Regional Engineer	100 First Street, Suite 2300, San Francisco CA, 94105
Gordon Toevs, California State Office State Director	California State Office State Director	2800 Cottage Way, W1623, Sacramento CA, 95825
Christopher Heppe, Central California District Officer District manager	Central California District Officer District manager	5152 Hillsdale Circle, El Dorado Hill, CA, 95762
NAHC Non-Statutory Tribe		
Wayne Mitchum Jr., Chairman	Cachil Dehe Band of Wintun Indians of the Colusa Indian Community	3730 Highway 45, Colusa, CA, 95932
Jennie Mitchum, Cultural Preservation Director	Cachil Dehe Band of Wintun Indians of the Colusa Indian Community	3730 Highway 45, Colusa, CA, 95932
Charlie Wright, Chairperson	Cortina Rancheria - Kletsel Dehe Band of Wintun Indians	P.O. Box 1630, Williams, CA, 95987
Ronald Kirk, Chairperson	Grindstone Rancheria of Wintun-Wailaki	P.O. Box 63, Elk Creek, CA,
Anthony Roberts, Chairperson	Yocha Dehe Wintun Nation	P.O. Box 18, Brooks, CA, 95606
Leland Kinter, Tribal Treasurer	Yocha Dehe Wintun Nation	P.O. Box 18, Brooks, CA, 95606
Yvonne Perkins, Cultural Resources Chairman	Yocha Dehe Wintun Nation	P.O. Box 18, Brooks, CA, 95606
James Kinter, Tribal Secretary	Yocha Dehe Wintun Nation	P.O. Box 18, Brooks, CA, 95606

TABLE 2
RESIDENCES

Wilbur-Ellis Co LLC, 38001 CR 27, Woodland, CA 95695-8903	Beeman Rev Trust, 38860 CR 27/22094 CR 99, Woodland, CA
Beeman Rev Trust, R2E POR SEC 18, Woodland, CA	Houston Rev Trust, 21868 CR 99/ 38908 CR 27, Woodland, CA
Kevan Louise Beeman, 38860 CR 27/22094 CR 99, Woodland, CA	Aoki Rev Trust, 38766 CR 27, Woodland, CA 95695-9323

San Francisco, CA HQ
575 Market Street
Suite 3700
San Francisco, CA 94105
(415) 896-5900 phone

www.esassoc.com

Mailing Affidavit

On Wednesday, April 9, 2025, I, Sheena Lau, of ESA, mailed the **Notice of Intent to Adopt an Initial Study/Mitigated Negative Declaration for the CPUC Plainfield Substation Upgrade Project,** in compliance with CEQA Guidelines § 15089 (b), to relevant federal, state, and local agency representatives, property owners within Project area, and other interested organizations and individuals.

I mailed the Notice of Intent to Adopt by enclosing the same in an envelope, postage paid, and depositing it in an official depository under the care and custody of United States Postal Service.

A true copy of the combined notice mailed is attached. The person(s) and their respective addresses are attached.

DATE: Monday, June 2, 2025

SIGNATURE:

Sheena Lau

06/02/2025

Attachments:

Combined Notice of Intent to Adopt / CPUC Plainfield Substation Upgrade Project Draft Initial Study/Mitigated Negative Declaration
Mailing List

THE DAVIS enterprise

PROOF OF PUBLICATION
(2015.5 C.C.P.)

Proof of Publication

STATE OF CALIFORNIA
County of Yolo

I am a citizen of the United States and a resident of the County aforesaid; I'm over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am principal clerk of the printer at the Davis Enterprise, 315 G Street, a newspaper of general circulation, printed and published Sunday, and Wednesday, in the City of Davis, County of Yolo, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court to the County of Yolo, State of California, under the date of July 14, 1952, Case Number 12680; that the notice, of which the annexed is a printed copy (set in type no smaller than non-pareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

4/9, **2025**

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Davis, California, this 10 **day** of April, **2025.**

M. Gracie Solano

M. Gracie Solano
Legal Advertising Clerk

THE DAVIS enterprise

PROOF OF PUBLICATION
(2015.5 C.C.P.)

Proof of Publication

California Public Utilities Commission
Notice of Intent to Adopt an Initial Study Mitigated Negative Declaration for the Plainfield Substation Upgrade Project

Notice is hereby given that the California Public Utilities Commission (CPUC) has released a Notice of Intent (NOI) to adopt an Initial Study/Mitigated Negative Declaration (IS/MND) for the Plainfield Substation Upgrade Project (the Project) located in Yolo County. Currently, the existing substation is equipped with two transformers, rated at 60/12 kilovolt (kV) 7.5 megavolt amperes (MVA) and 115x60/12 kV 30 MVA, respectively. The Project includes the expansion and upgrade of the Plainfield Substation by adding two new 5-MVA reactive power shunt capacitor banks and related equipment that would boost the voltage of the 60 kV lines to acceptable levels. Project components also include upgrades to existing electrical equipment, installation of a stormwater retention pond, replacement and installation of tubular steel poles and power lines, and new fencing, lighting, and access road improvements. The purpose of the Project is to increase service reliability in unincorporated Yolo County and the cities of Woodland and Davis. PG&E would expand the existing Plainfield Substation to improve energy transmission reliability by addressing low-voltage concerns and overload conditions. The IS/MND evaluates potential direct, indirect, and cumulative impacts of the construction, operation, and maintenance of the Project. The Final IS/MND will incorporate written input received during the public comment period, from April 9, 2025, through May 9, 2025. The Draft IS/MND may be viewed online on the CPUC's website for the Project at: https://ia.cpuc.ca.gov/environment/info/esa/plainfield/index.html. This website provides access to public documents and information pertaining to the environmental review process for the Project and will be updated during the review process to include current Project information, as it becomes available. A printed copy of the Draft IS/MND may also be requested by email at Plainfield@esassoc.com. Comments may be submitted in writing during the 30-day public review period by mail to: CPUC, attn. Plainfield Substation/Tommy Alexander, 505 Van Ness Avenue, San Francisco, CA 94102; by email to Plainfield@esassoc.com, or by telephone at (510) 463-6731.

For Publication: April 9, 2025 #80329

Daily Democrat
DailyDemocrat.com · Woodland, CA
c/o Legals 57 Commerce Place, Suite A
Vacaville, CA 95687
530-406-6223
legals@dailydemocrat.com

3867417

ENVIRONMENTAL SCIENCE ASSOCIATES
575 MARKET ST., SUITE 3700
SAN FRANCISCO, CA 94105

Account Number: 3867417

Ad Order Number: 0006888853

Customer's Reference / PO Number:

Publication: Woodland Daily Democrat

Publication Dates: 04/09/2025

Amount: $123.61

Payment Amount: $123.61 *Payment Method:* Credit Card

Invoice Text:

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For Publication: April 9, 2025

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3867417

ENVIRONMENTAL SCIENCE ASSOCIATES
575 MARKET ST., SUITE 3700
SAN FRANCISCO, CA 94105

PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA
COUNTY OF YOLO

I am a citizen of the United States. I am over the age of eighteen years and not a party to or interested in the above-entitled matter. I am the Legal Advertising Clerk of the printer and publisher of The Daily Democrat, a newspaper published in the English language in the City of Woodland, County of Yolo, State of California.

I declare that the Daily Democrat is a newspaper of general circulation as defined by the laws of the State of California as determined by this court's order dated June 30, 1952 in the action entitled In the Matter of the Ascertainment and Establishment of the Standing of The Daily Democrat as a Newspaper of General Circulation, Case Number 12659. Said order states "The Daily Democrat" has been established, printed and published in the City of Woodland, County of Yolo, State of California; That it is a newspaper published daily for the dissemination of local and telegraphic news and intelligence of general character and has a bona fide subscription list of paying subscribers; and...THEREFORE, IT IS ORDERED, ADJUDGED AND DECREED:...That "The Daily Democrat" is a newspaper of general circulation for the City of Woodland, County of Yolo, California. Said order has not been revoked.

I declare that this notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

04/09/2025

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Woodland, California, this
9th day of April 2025

(Signature) Melanie Irmer

Legal No. **0006888853**

California Public Utilities Commission
Notice of Intent to Adopt an Initial Study
Mitigated Negative Declaration for the
Plainfield Substation Upgrade Project

Notice is hereby given that the California Public Utilities Commission (CPUC) has released a Notice of Intent (NOI) to adopt an Initial Study/Mitigated Negative Declaration (IS/MND) for the Plainfield Substation Upgrade Project (the Project) located in Yolo County. Currently, the existing substation is equipped with two transformers, rated at 60/12 kilovolt (kV) 7.5 megavolt amperes (MVA) and 115x60/12 kV 30 MVA, respectively. The Project includes the expansion and upgrade of the Plainfield Substation by adding two new 5-MVA reactive power shunt capacitor banks and related equipment that would boost the voltage of the 60 kV lines to acceptable levels. Project components also include upgrades to existing electrical equipment, installation of a stormwater retention pond, replacement and installation of tubular steel poles and power lines, and new fencing, lighting, and access road improvements. The purpose of the Project is to increase service reliability in unincorporated Yolo County and the cities of Woodland and Davis. PG&E would expand the existing Plainfield Substation to improve energy transmission reliability by addressing low-voltage concerns and overload conditions. The IS/MND evaluates potential direct, indirect, and cumulative impacts of the construction, operation, and maintenance of the Project. The Final IS/MND will incorporate written input received during the public comment period, from April 9, 2025, through May 9, 2025. The Draft IS/MND may be viewed online on the CPUC's website for the Project at: https://ia.cpuc.ca.gov/environment/info/esa/plainfield/index.html. This website provides access to public documents and information pertaining to the environmental review process for the Project and will be updated during the review process to include current Project information, as it becomes available. A printed copy of the Draft IS/MND may also be requested by email at Plainfield@esassoc.com. Comments may be submitted in writing during the 30-day public review period by mail to: CPUC, attn. Plainfield Substation/Tommy Alexander, 505 Van Ness Avenue, San Francisco, CA 94102; by email to Plainfield@esassoc.com, or by telephone at (510) 463-6731.

For Publication: April 9, 2025