

Greenville Road Sewer Extension Project

Initial Study-Mitigated Negative Declaration

prepared by

County of Alameda
Community Development Agency
224 West Winton Avenue, Room 110
Hayward, California 94544
Contact: Jaimie Orfanos, Assistant Director

prepared with the assistance of

Rincon Consultants
66 Franklin Street, Suite 300
Oakland, California 94607

October 2026

RINCON CONSULTANTS

Table of Contents

Initial Study 1
1 Project Title 1
2 Lead Agency Name and Address 1
3 Contact Person and Phone Number 1
4 Project Location 1
5 Land Use Designation 1
6. Zoning 4
7 Project Background 4
8 Description of Project 6
9 Surrounding Land Uses and Setting 8
10 Other Public Agencies Whose Approval is Required 9
Environmental Factors Potentially Affected 11
Determination 11
Environmental Checklist 13
1 Aesthetics 13
2 Agriculture and Forestry Resources 17
3 Air Quality 21
4 Biological Resources 27
5 Cultural Resources 39
6 Energy 43
7 Geology and Soils 47
8 Greenhouse Gas Emissions 57
9 Hazards and Hazardous Materials 61
10 Hydrology and Water Quality 67
11 Land Use and Planning 75
12 Mineral Resources 77
13 Noise 79
14 Population and Housing 87
15 Public Services 89
16 Recreation 91
17 Transportation 93
18 Tribal Cultural Resources 97
19 Utilities and Service Systems 101
20 Wildfire 107
21 Mandatory Findings of Significance 109

References 113
Bibliography 113
List of Preparers 117

Tables

Table 1 BAAD Air Quality Significance Thresholds 22
Table 2 Project Construction Emissions 23
Table 3 Project Operational Emissions 24
Table 4 Special-status Animals with Potential to Occur in the Project Area 30
Table 5 2022 Electricity Consumption 43
Table 6 2023 Annual Gasoline and Diesel Consumption 44
Table 7 Proposed Project Construction Energy Usage 45
Table 8 Estimated Construction Emissions of Greenhouse Gases 59
Table 9 Combined Annual Emissions of Greenhouse Gases 60
Table 10 Criteria for Vibration Damage Potential 81
Table 11 County of Alameda Noise and Land Use Compatibility Guidelines 83
Table 12 Estimated On-Site Construction Noise Levels 83
Table 13 Livermore Municipal Water Normal Year Water Supplies (Million Gallons) 101
Table 14 Livermore Municipal Water Projected Demands for Potable and Raw Water (Million Gallons) 102

Figures

Figure 1 Regional Location 2
Figure 2 Project Location 3
Figure 3 Project Location in Relation to the South Livermore Sewer Extension Project 5
Figure 4 Proposed Project Components 7
Figure 5 Las Positas Fault and the Project Site 48
Figure 6 Geologic Map and Paleontological Sensitivity of Project Site 50

Appendices

Appendix A CalEEMod Worksheets
Appendix B Biological Resources Assessment
Appendix C Cultural Resources Assessment
Appendix D Energy Calculation Sheets
Appendix E RCNM Modeling Worksheets
Appendix F Transportation Impact Study
Appendix G AB 52 Correspondence Tracker

Initial Study

1 Project Title

Greenville Road Sewer Extension Project

2 Lead Agency Name and Address

County of Alameda
Community Development Agency
Economic and Civic Development Department
224 West Winton Avenue, Room 110
Hayward, California 94544

3 Contact Person and Phone Number

Jaimie Orfanos, Assistant Director
(510) 670-6107

4 Project Location

The project site is located in unincorporated Alameda County, comprising a segment of the Greenville Road right-of-way between Tesla Road and the Martinelli Center; the parcel containing the Martinelli Center (3585 Greenville Road; Assessor's Parcel Number 99A-1602-13-1, 8.56 acres in size); and an approximately 3-acre portion of the parcel to the north (Assessor's Parcel Number 99A-1602-5-3), both owned by the Alameda County Surplus Property Authority. Access to the project site is provided locally by Greenville Road and Tesla Road, and regionally by Interstate 580. Figure 1 shows the regional location of the project site and Figure 2 provides an aerial view of the project location, including surrounding land uses. The South Bay Aqueduct, which orients in a north-south direction, is located adjacent to the Martinelli Center parcel to the west, and Arroyo Seco, which orients in an east-west direction, flows beneath Greenville Road south of the Martinelli Center.

5 Land Use Designation

The project site is within the County of Alameda's East County Area Plan (ECAP). The roadway right-of-way (ROW) for Greenville Road does not have an ECAP land use designation.

The Martinelli Center parcel and the parcel to the north of the Martinelli Center have an ECAP land use designation of Large Parcel Agriculture (LPA).

The project site and surrounding parcels are located in the Vineyard Area of the South Livermore Valley Area Plan.

Figure 1 Regional Location

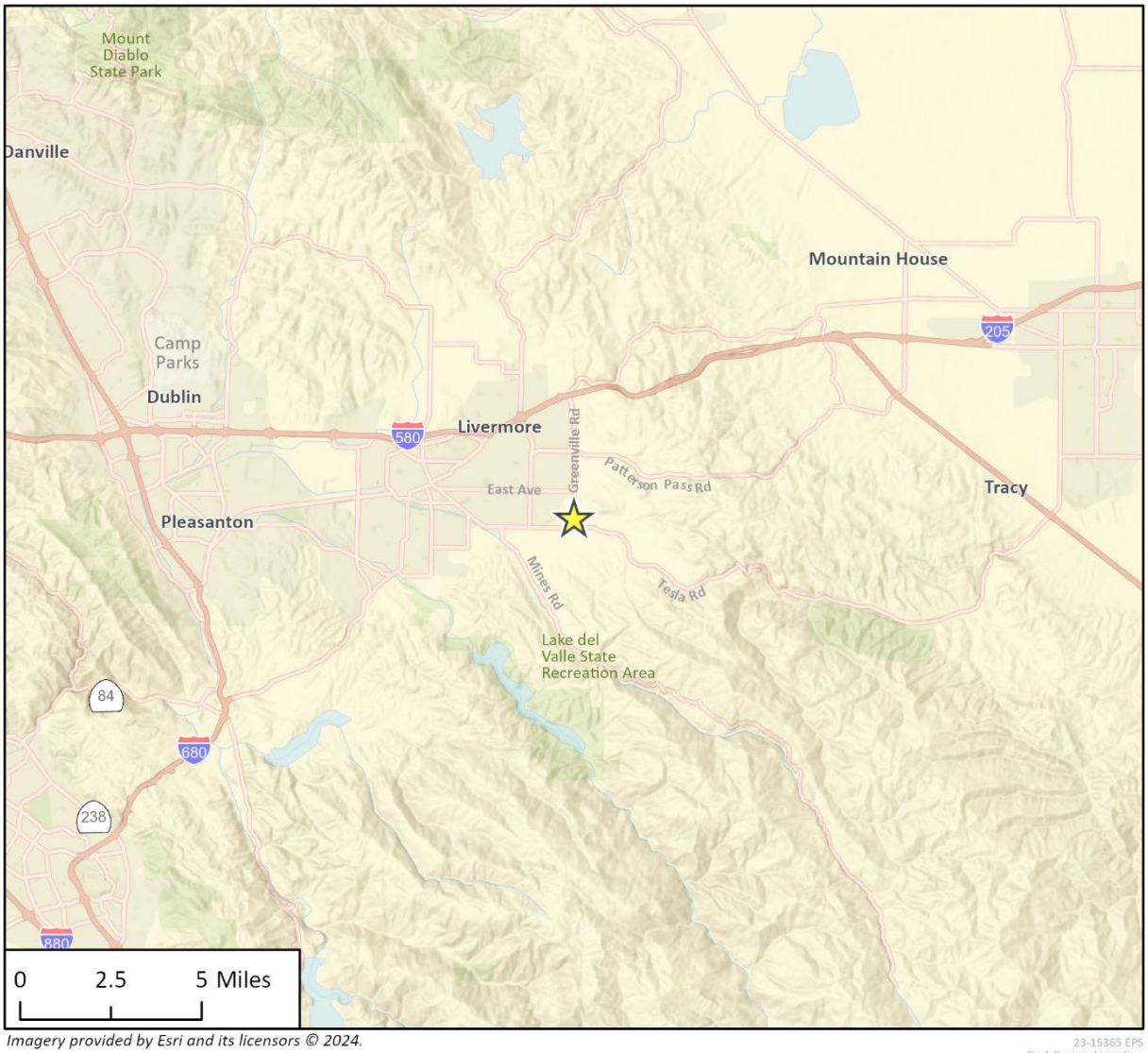
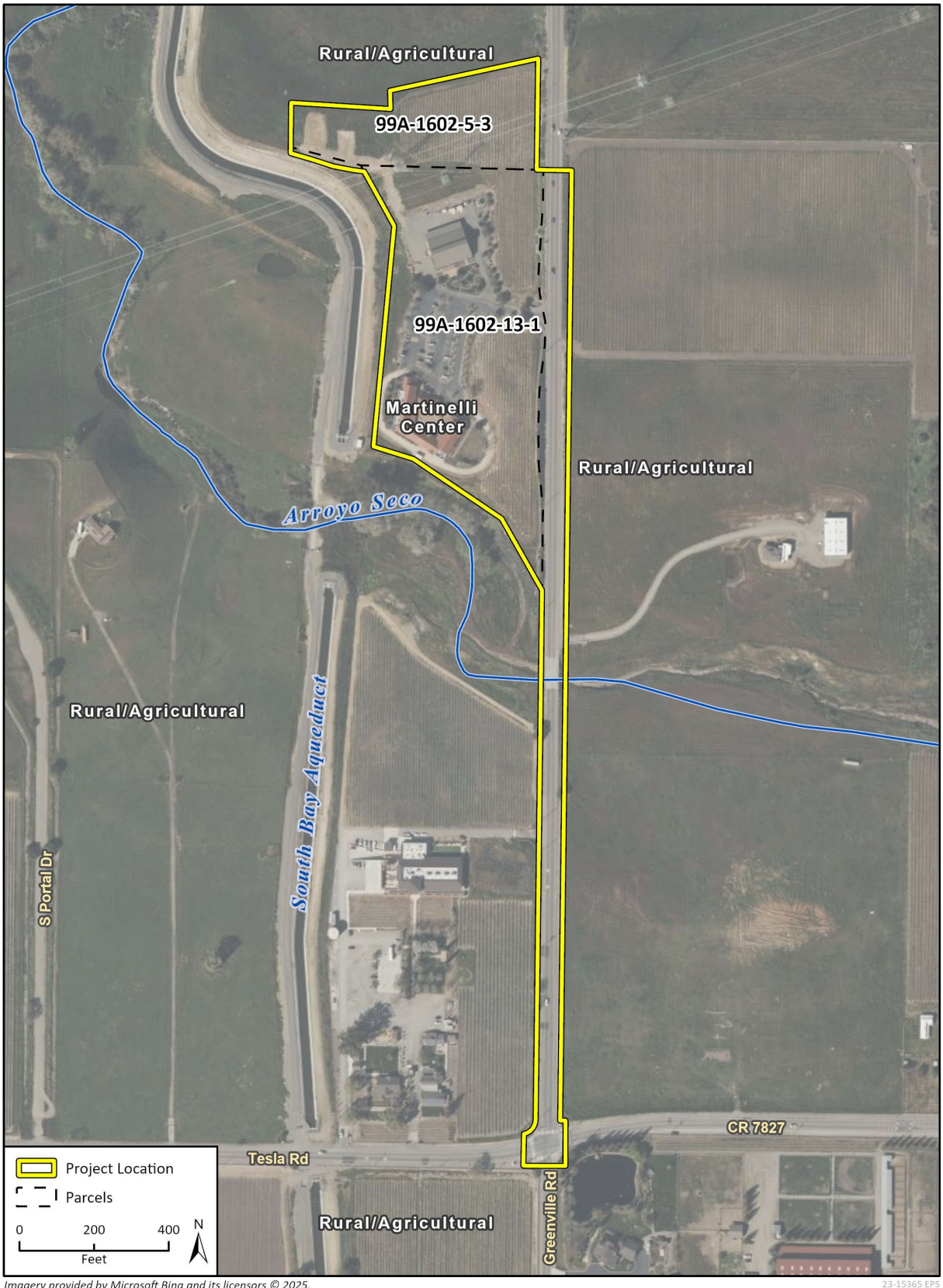


Figure 2 Project Location



Imagery provided by Microsoft Bing and its licensors © 2025.
Additional data provided by NHD, 2024.

23-15365 EPS
Fig 2 Project Location

6. Zoning

The roadway ROW for Greenville Road does not have a zoning designation.

The Martinelli Center parcel is zoned Planned Development (PD) and the parcel to the north of the Martinelli Center is zoned Agriculture (A) by Alameda County.

7 Project Background

The City of Livermore certified a Supplemental Environmental Impact Report (SEIR) in July 2022 for the South Livermore Sewer Expansion Project, which includes the extension of sewer pipelines to the intersection of Tesla Road and Greenville Road in the County of Alameda. The certified SEIR tiered from the 1997 EIR for the South Livermore Valley Specific Plan. Figure 3 shows the location of the South Livermore Sewer Expansion Project in relation to the proposed project.

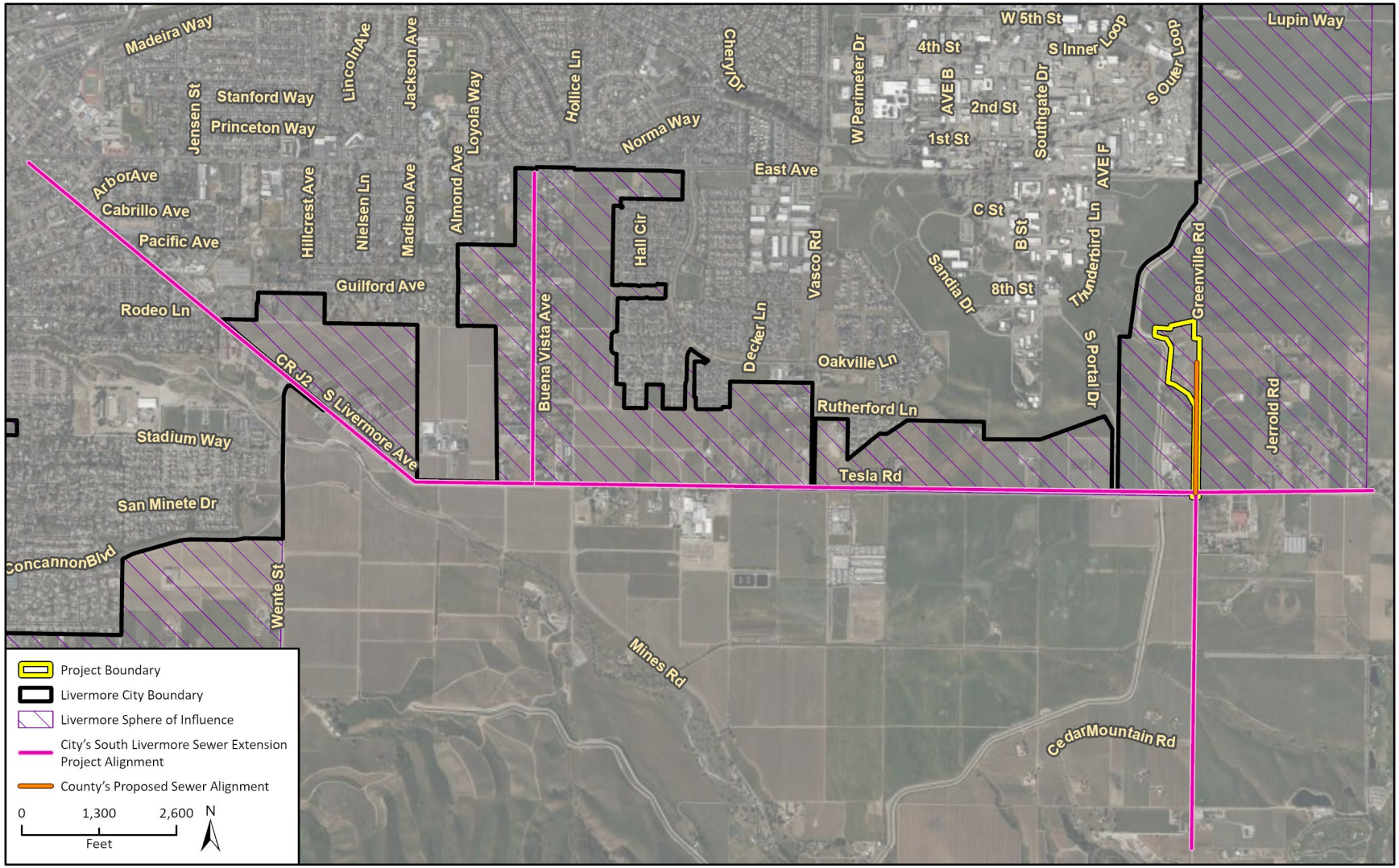
The County of Alameda has determined that an extension of the approved South Livermore Sewer Expansion Project to serve additional parcels located along Greenville Road would be beneficial to the environmental health of those parcels and adjacent areas.[1] The intent of this addition to the City's South Livermore Sewer Expansion Project would be to improve the quality of groundwater in the area, as all parcels are currently served by septic systems. Similar to the City's South Livermore Sewer Expansion Project, the proposed project would allow existing wineries along Greenville Road to use the municipal wastewater system for wastewater disposal. The proposed additional sewer extension does not include changes to allowed land uses or land use intensity; however, it would remove an existing constraint (wastewater disposal limitations) on parcels adjacent to the project site and may thus allow the development potential anticipated by their current land use and zoning designations, consistent with existing land use policies and plans, including the ECAP and South Livermore Valley Area Plan, and consistent with the County of Alameda Zoning Code.

Additionally, the septic system at the Martinelli Center experienced a failure in August 2021 that caused flooding of the County's agricultural field office, affecting the entire building and causing substantial contamination. The septic system was subsequently modified to prevent future flooding, and contaminated materials were removed; however, agricultural field office staff were displaced from the building and were unable to return until the septic system was fully repaired, which caused a significant disruption in staff's ability to utilize this critical building. The continued use of the septic system would continue to contribute to existing groundwater quality issues and potential contamination of existing buildings from septic leakage. Events at and continued use of the Martinelli Center have similarly been limited by the septic system.

The vineyards planted on the Martinelli Center parcel and adjacent parcel to the north are in poor condition, and if the County desired to continue wine grape production in these areas, the plants would need to be replaced. Currently, the vineyard areas are an aesthetic feature that provide a visual element consistent with the agricultural and viticultural use of the south Livermore region.

[1] The County is paying for the design and construction of the sewer extension, while the City of Livermore is managing the design process with County funds. The County will manage the construction of the extension and own the proposed facility.

Figure 3 Project Location in Relation to the South Livermore Sewer Extension Project



Imagery provided by Microsoft Bing and its licensors © 2025.

23-15365 EPS
Fig 3 Project Location in Relation to the South Livermore Sewer Extension Project

8 Description of Project

The proposed project includes two components, which are described further below: the extension of a sewer line along Greenville Road between Tesla Road and the Martinelli Center, and modifications to and/or re-use of the Martinelli Center. Figure 4 shows the location of the proposed sewer line within Greenville Road and conceptual modifications to the Martinelli Center, the actual paved parking lot area is expected to be substantially smaller and would be refined during final design.

Sewer Expansion

The proposed project would entail the extension of sewer services approximately 0.4 mile from the intersection of Greenville Road and Tesla Road north along Greenville Road to the Martinelli Center. The proposed project would be located within paved ROW, with no ground disturbance proposed in adjacent agricultural or natural areas. The alignment crosses one bridge over Arroyo Seco, an east-west intermittent stream. Based on the proposed depth of the pipeline connection at Greenville Road and Tesla Road (15 to 18 feet below ground surface, according to the certified SEIR), the proposed project may either involve attaching the pipeline to the bridge or installing the pipeline beneath the intermittent stream.

If the pipeline is installed beneath the intermittent stream then open-cut trenching would be selected for installation of the pipeline beneath Arroyo Seco. The method would involve excavation across the dry streambed, placement of the pipeline at a depth of approximately 15 to 18 feet, and full restoration of the channel. This method would be implemented during the dry season and would require permits from the California Department of Fish and Wildlife, Regional Water Quality Control Board, and potentially the United States Army Corps of Engineer. The analysis throughout this Initial Study conservatively assume the more invasive method to ensure potential impacts are addressed. The final construction method would be selected based on engineering feasibility and environmental considerations.

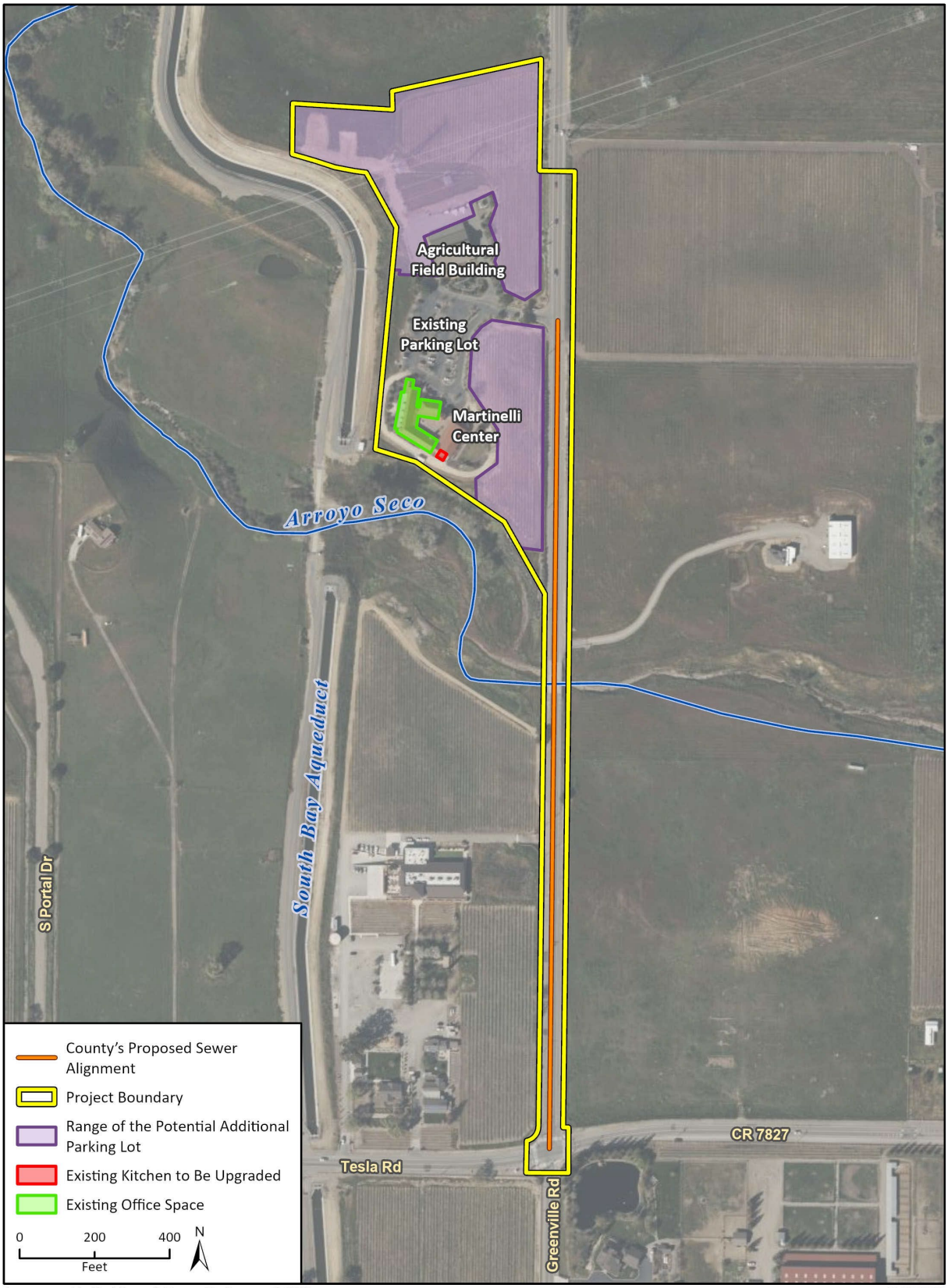
The proposed project also includes a sewer lateral connection from Greenville Road to the existing Martinelli Center buildings. This lateral connection would be placed within existing disturbed and/or paved areas within the Martinelli Center parcel. A lift station would be constructed at the Martinelli Center to pump wastewater from the building to Greenville Road, which is needed due to the topography of the site in relation to the road.

Martinelli Center Modifications

For the purposes of providing a conservative analysis, this document assumes and evaluates development that may be indirectly facilitated by the sewer line expansion work as part of the proposed project, specifically modifications to the Martinelli Center. While the County is considering several options for future uses at the Martinelli Center, the following analysis is based on the most intensive use that could be feasible for the property. Changes to uses of the Martinelli Center could include:

- The continuation of the event center functions, including weddings and other social events on weekends, and business and civic events during the week; and
- Conversion of the existing office space into a wine country visitor hub, including activities such as wine tastings and wine trolley tours leaving from the Martinelli Center.

Figure 4 Proposed Project Components



Imagery provided by Microsoft Bing and its licensors © 2025.
Additional data provided by NHD, 2024.

23-15365 EPS
Fig 4 Project Components

Physical modifications to the Martinelli Center could include:

- An upgrade to the existing kitchen facilities, including the installation of grease traps and equipment modernization;
- Conversion of some portion of the existing office space (up to 7,300 square feet) to a visitor center; and
- Construction of additional on-site parking, including electrical vehicle infrastructure (up to 60 added spaces). While up to 140 total parking spaces (80 existing plus 60 proposed) are evaluated for a conservative analysis, the final paved area would be limited to what is necessary to support anticipated event and visitor center operations; and
- Removal of the existing septic system.

These modifications would occur on the existing 8.56-acre parcel where the Martinelli Center is located, with the exception of the expanded parking area, which may be constructed within the southernmost portion of APN 99A-1602-5-3, immediately north of the Martinelli Center parcel, as shown in Figure 4.

Construction

Construction of the pipeline within Greenville Road is expected to begin in Spring 2026. It is anticipated that pipeline would be constructed at a rate of approximately 150 linear feet per day, within a 20-foot wide work area. Once completed, construction of improvements to the Martinelli Center would commence, including the sewer lateral connection, removal of the septic system, kitchen upgrade improvements, and office to visitor center conversion. Construction activities would occur between 7:00 a.m. and 3:00 p.m. on weekdays.

The existing septic tank at the Martinelli Center would either be removed entirely once the proposed sewer lateral from Greenville Road to the Martinelli Center buildings is constructed and operational or would be abandoned in place. A total of approximately 760 cubic yards of excavation would be necessary, some of which would be used as backfill along with approximately 920 cubic yards of imported fill. The maximum depth of excavation is anticipated to be 18 feet for the Greenville Road pipeline and six feet for the Martinelli Center modifications.

Construction staging for the Greenville Road pipeline would occur within the identified project boundary and County right-of-way. Laydown yards may be located on adjacent parcels, subject to agreements with the associated landowner(s).

9 Surrounding Land Uses and Setting

Parcels immediately adjacent to Greenville Road have a land use designation of LPA and are zoned PD, and parcels surrounding the Martinelli Center have a land use designation of LPA to the north, east, and south, and a land use designation of Water Management (WM) to the east, and are zoned Agriculture (A).

Arroyo Seco, an east-west intermittent stream, crosses Greenville Road approximately 0.25 mile north of the Greenville Road and Tesla Road intersection and south of the Martinelli Center. Existing agricultural uses, including vineyards; Garré Vineyard, Restaurant, and Event Center; and rural/agricultural land generally surround the proposed Greenville Road sewer alignment and Martinelli Center. The South Bay Aqueduct flows north-south along the western boundary of the Martinelli Center parcel. Few trees are located along Greenville Road, and shallow stormwater drainage ditches are located on either side of Greenville Road. Greenville Road gently slopes downward from approximately 715 feet above mean sea level (amsl) to approximately 710 feet amsl at the drainage crossing, and then gently slopes upward to an elevation of approximately 745 feet amsl at the Martinelli Center. The width of pavement along Greenville Road is between 40 and 45 feet, with a 40-foot width across the bridge, within a 65-foot County ROW. Power lines are also located along both sides of Greenville Road.

10 Other Public Agencies Whose Approval is Required

If the proposed pipeline is ultimately installed beneath Arroyo Seco, the following permits and approvals may be required:

- California Department of Fish and Wildlife (CDFW) Lake and Streambed Alteration Agreement (LSAA)
- Regional Water Quality Control Board (RWQCB) Waste Discharge Requirement notification, if horizontal directional drilling is used
- RWQCB 401 Certification, unless horizontal directional drilling is used
- United States Army Corps of Engineer (USACE) 404 Permit, if trenching through the creek is used

It is not anticipated that additional permits or approvals would be required if the proposed sewer pipeline is attached to the bridge across Arroyo Seco. This action would not require an encroachment permit or easement as the bridge is part of a County road.

This page intentionally left blank.

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is “Potentially Significant” or “Less than Significant with Mitigation Incorporated” as indicated by the checklist on the following pages.

☐	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	☐	Wildfire	■	Mandatory Findings of Significance

Determination

Based on this initial evaluation:

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

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to 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 “less than significant with mitigation incorporated” 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 potential 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.



Signature	Date
Jaimie Orfanos	Assistant Director
Printed Name	Title

Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
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 non-urbanized 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 that would adversely affect daytime or nighttime views in the area?	☐	☐	■	☐

Setting

The project site is primarily surrounded by agricultural land along Greenville Road, including vineyards, wineries, and individual residences. There are distant views of hillsides from the project alignment, including the Altamont Hills to the east and the Diablo Mountain Range to the south and west. The County's ECAP identifies such views as one of the primary visual characteristics and amenities of the East County Area (County of Alameda 1993a). The project alignment is located approximately 3.0 miles south of the nearest eligible state scenic highway, Interstate 580 (I-580; Caltrans 2024).

Regulatory Setting

East County Area Plan 1993

The ECAP contains goals and policies regarding the County's scenic qualities. Specifically, the sensitive viewsheds goal aims to preserve unique visual resources and protect sensitive viewsheds (County of Alameda 1993). Policies 105 through 107 establish requirements in order to protect various ridgelines in the East County Area. Policy 108 requires new structures to be located in areas least visible from public roads, trails, parks, and viewpoints, potentially using clustering. This does not apply to agricultural structures if visibility is necessary for agricultural purposes. Policy 114 requires the use of landscaping to enhance the scenic quality of the area and to screen undesirable views (County of Alameda 1993b).

Impact Analysis

a. Would the project have a substantial adverse effect on a scenic vista?

A scenic vista is usually defined as a panoramic view from an elevated position or a long-range view from a public vantage point. This can include views of natural features or of the built environment, when architecture and landscaped boulevards offer high-value views of an area considered important to the sense of place. The proposed project would not modify existing distant views of Altamont Hills and the Diablo Mountain Range from public viewpoints such as Greenville Road or Tesla Road, as the project would not involve aboveground improvements along Greenville Road. Proposed modifications at the Martinelli Center would result in minimal aboveground modifications, with the exception of the potential removal of vineyards from the proposed parking lot area, and distant views of scenic features from public viewpoints such as Greenville Road would also remain substantially unchanged as a result of this portion of the proposed project. Therefore, the proposed project would not have a substantial adverse effect on a scenic vista and the proposed project would have a less than significant impact.

LESS-THAN-SIGNIFICANT IMPACT

b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The project alignment is located approximately 3.0 miles south of the nearest eligible state scenic highway, I-580. Due to distance, the speed of travelers along I-580, intervening topography, and intervening development, the project alignment is not visible from I-580. The proposed project would not damage, nor require the removal of, scenic resources such as trees, rock outcroppings, or historic buildings. As noted under *criterion a*, the potential removal of vineyards from the proposed parking lot area would change views of the project site from travelers on Greenville Road; however, the modification would not be visible from I-580. Therefore, the proposed project would not damage scenic resources within a state scenic highway and there would be no impact.

NO IMPACT

c. Would the project, in non-urbanized 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?

According to *CEQA Guidelines* Section 21071, because the project site is within an unincorporated area not within the City of Livermore's urban growth boundary and is not completely surrounded by an incorporated city, the project site is in a non-urbanized area. As noted under *criterion a*, the majority of the proposed project improvements would be installed below grade and would not result in new or substantially altered visual conditions of the project alignment or Martinelli Center, with the exception of the potential removal of vineyards from the proposed parking lot area. The potential removal of vineyards from the proposed parking lot area would change the visual character of the project site as viewed by travelers on Greenville Road; however, the area to be modified is small in relation to the existing overall agricultural and viticultural uses in the vicinity of the project site, and would not substantially affect the overall visual character of the south Livermore areas. The intent of the Martinelli Center modifications, including the future construction of additional parking, is consistent with the agricultural and viticultural uses of the project site and the surrounding area. Impacts to the area's existing visual character would be less than significant.

LESS-THAN-SIGNIFICANT IMPACT

d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Construction would take place during daytime hours (7:00 a.m. to 3:00 p.m.) on weekdays; therefore, construction of the proposed project would not result in extended periods of time where construction lighting would affect road users. The nearest light-sensitive receptor is a residence located approximately 600 feet away (measured from the eastern side of the residence to the western side of the Martinelli Center parcel) that is separated from the project site by topography and vineyards, reducing the potential for light-related impacts to sensitive receptors. The proposed project would introduce additional lighting in the expanded parking area, which could create new sources of light and glare. This may result in some nighttime illumination and reflections from parked vehicles that could affect adjacent areas. However, new lighting would be designed to comply with applicable local standards such as Section 17.54.230 of the County Code to minimize light spillover and glare. Impacts related to light and glare would be less than significant.

LESS-THAN-SIGNIFICANT IMPACT

This page left intentionally blank.

2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on 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?	☐	☐	☐	■

Setting

As stated in Sections 5, 6, and 9 of this Initial Study, the Martinelli Center has a land use designation of LPA and is zoned PD, and parcels adjacent to the project site have a land use designation of LPA and WM, and are currently zoned PD and A.

The California Department of Conservation (DOC) manages the Farmland Mapping and Monitoring Program to assess and record suitability of land for agricultural purposes. In each county, the land is analyzed for soil and irrigation quality. The highest quality land is designated as Prime Farmland. The DOC lists the project alignment as Grazing Land. The Martinelli Center parcels are listed as Urban and Built Up Land with Unique Farmland in the vineyard areas. Adjacent parcels to the project alignment are variously designated as Prime Farmland, Unique Farmland, and Grazing Land. The Martinelli Center is surrounded by Grazing Land (DOC 2022a).

Regulatory Setting

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 and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a

> commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis.

Government Code Section 51104(g) defines a timberland production zone as:

> …an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h).

Impact Analysis

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The project alignment is located adjacent to lands classified as Prime Farmland and Unique Farmland and the Martinelli Center parcels contain Unique Farmland (DOC 2022a). However, the sewer extension would be constructed entirely within existing paved rights-of way and would not require ground disturbance in adjacent agricultural or other natural areas. The Martinelli Center improvements would occur on some Unique Farmland, which is considered Important Farmland. While this would result in a conversion from agricultural to agricultural-supportive uses, the proposed project would not be converting this land into non-agricultural use in a broader context, as the site is a County-owned parcel already functioning in an agricultural-supportive capacity and the project would further enhance that role through expanded agriculture and wine tourism. As such, substantial conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses would not occur and the impact would be less than significant.

LESS-THAN-SIGNIFICANT IMPACT

b. Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

One parcel adjacent to the project site located on the southwest corner of the Tesla Road and Greenville Road intersection is enrolled under the California Land Conservation Act and is subject to a Williamson Act contract as Prime Agricultural Land and Non-Prime Agricultural Land (DOC 2015a). Similarly, parcels alongside the project site are zoned as both PD and A. The proposed project would involve construction of sanitary sewer lines within existing paved roadways and modifications to the Martinelli Center, which are not subject to Williamson Act contracts and do not have zoning designations or land use designations. Therefore, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract and no impact would occur.

NO IMPACT

c. Would the project 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. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

The project site and surrounding areas do not meet the definitions of and are not designated as forest land, timberland, or timberland zoned for timberland production. Therefore, the proposed project would not conflict with existing zoning for, or cause rezoning of forest land, timberland, or timberland zoned for Timberland Production; result in the loss of forest land; or convert forest land to non-forest use. No impact would occur.

NO IMPACT

e. *Would the project 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?*

The proposed project would not directly result in the conversion of farmland or forestland adjacent to the project site to non-agricultural use or non-forest use as discussed in *criteria a, b, c,* and *d* of this section. The project alignment would not result in indirect conversion of farmland or forestland as the proposed project is intended to support existing agricultural uses in the vicinity through the provision of municipal sewer service to replace existing septic tanks and provide event center functions in support of agricultural and viticultural tourism. The Martinelli Center improvements would occur on some Unique Farmland, which is considered Important Farmland. However, the proposed project would not be converting this land into non-agricultural use as the intent of the proposed project is to support agricultural uses through expanded agriculture and wine tourism. No new uses would be introduced that would hinder or conflict with ongoing surrounding agricultural operations. There would be no impact.

NO IMPACT

This page left intentionally blank.

3 Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
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?	☐	☐	☐	■

Setting

The project site is located within the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air District (BAAD). The SFBAAB climate is influenced by a semi-permanent, subtropical high-pressure cell. In summer, this cell is over the northeastern Pacific Ocean, causing stable weather and steady northwesterly winds. This leads to upwelling of cold water, cooling the air and creating fog and stratus clouds along Northern California's coast. In winter, the high-pressure cell weakens and shifts south, leading to offshore winds, no upwelling, and storms, with low air pollution potential due to weak inversions and moderate winds.

As the local air quality management agency, BAAD is required to monitor air pollutant levels to ensure that state and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the Basin is classified as being in “attainment” or “nonattainment.” Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. The SFBAAB is designated as nonattainment-marginal for the federal 8-hour ozone standard and nonattainment-moderate for particulate matter less than 2.5 microns in diameter ($PM_{2.5}$). In addition, the SFBAAB is in nonattainment for the state 8-hour ozone, $PM_{2.5}$, and particulate matter less than 10 microns in diameter (PM_{10}) (California Air Resource Board [CARB] 2023).

Impact Analysis

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

The most recently adopted applicable air quality plan is the BAAD’s 2017 Plan. To fulfill state ozone planning requirements, the 2017 Plan control strategy includes all feasible measures to reduce emissions of ozone precursors—ROG and NO_X—and reduce transport of ozone and its precursors to neighboring air basins.

Under BAAD’s methodology, a determination of consistency with the 2017 Plan should demonstrate that a project (BAAD 2017):

- Supports the primary goals of the air quality plan
- Includes applicable control measures from the air quality plan

- Does not disrupt or hinder implementation of any air quality plan control measures

Implementing control measures like green building construction, waste diversion, and water conservation on an individual project basis indicates support for the clean air plan goals. Additionally, meeting BAAD quantitative thresholds demonstrates support for the 2017 Plan's objectives.

The 2017 Plan includes goals and measures to encourage energy and water efficiency. The proposed project aligns with these goals by incorporating features such as energy and water-efficient appliances that meet the 2022 Title 24 Standards. Additionally, the proposed project would be constructed with all-electric appliances and electric vehicle infrastructure. Furthermore, as described under *criterion b*, construction and operational activities would adhere to 2017 Plan control measures and construction and operational-related emissions would not exceed the applicable BAAD significance thresholds. Therefore, the proposed project, consistent with the BAAD's CEQA thresholds, would not conflict with or obstruct the implementation of the 2017 Plan. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project 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?

BAAD's *2022 CEQA Air Quality Guidelines* are used in this analysis to evaluate air quality. Table 1 shows the significance thresholds for construction and operational-related criteria air pollutant and precursor emissions being used for the purposes of this analysis. These thresholds represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. For the purposes of this analysis, the proposed project would result in a significant impact if construction or operational emissions would exceed thresholds as shown in Table 1.

Table 1 BAAD Air Quality Significance Thresholds

	Construction Thresholds	Operational Thresholds	
Pollutant	Average Daily Emissions (pounds per day)	Average Daily Emissions (pounds per day)	Maximum Annual Emissions (tons per year)
ROG	54	54	10
NO_X	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10

ROG = reactive organic gases, NO_X = nitrogen oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter;

Source: BAAD 2023

Air pollutant emissions generated by project construction and operation were estimated using the California Emissions Estimator Model (CalEEMod), version 2022.1. Project construction would primarily generate temporary criteria pollutant from construction equipment operation on-site and construction worker vehicle trips to and from the site. The proposed project's grading and building characteristics, construction timeline, equipment list, and excavation quantities were provided by the County as project proponent. Construction is scheduled to begin in late 2026, with the analysis conservatively assuming that all sewer pipeline construction phases would overlap. The proposed project is expected to export approximately 122 cubic yards of soil and import approximately 920 cubic yards of soil during the trenching and grading phase. Based on the applicant, haul trucks would have a soil haul capacity of 10 cubic yards. The analysis assumes that construction equipment used would be diesel-powered and would comply with applicable regulatory standards, such as BAAD's Basic Best Management Practices for Construction-Related Fugitive Dust Emissions and Regulation 8 Rule 3, Architectural Coating.

Table 2 summarizes the estimated average daily emissions of pollutants during project construction. As shown therein, construction-related emissions would not exceed BAAD thresholds. Therefore, project construction 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. This impact would be less than significant.

BAAD does not have quantitative thresholds for fugitive dust emissions during construction. Instead, BAAD requires that all projects implement BAAD's Basic Best Management Practices for Construction-Related Fugitive Dust Emissions to have a less than significant impact related to construction-related fugitive dust. The proposed project would incorporate the best practice measures outlined in Table 5-2 of the 2022 BAAD CEQA Guidelines (BAAD 2023) as part of standard construction specifications and contract requirements. These measures would be included as conditions of project approval and enforced through the contractor's construction documents and City/County inspection processes. By implementing these best practice measures, the proposed project would ensure that fugitive dust during project construction would be less than significant.

Table 2 Project Construction Emissions

	Average Daily Emissions (pounds per day)					
Year	**ROG**	**NO_X**	**CO**	**SO_X**	**PM_{10} (exhaust)**	**$PM_{2.5}$ (exhaust)**
2026	<1	3	3	<1	<1	<1
2027	<1	<1	<1	<1	<1	<1
BAAD Thresholds (average daily emissions)	54	54	N/A	N/A	82	54
Threshold Exceeded?	**No**	**No**	**N/A**	**N/A**	**No**	**No**

ROG = reactive organic gases; NO_x = nitrogen oxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter no more than 10 microns; $PM_{2.5}$ = particulate matter with a diameter no more than 2.5 microns; SO_x = sulfur oxide N/A = not applicable (no BAAD threshold for CO or SO_X); BAAD = Bay Area Air District.

Source: See CalEEMod worksheets in Appendix A.

Operational emissions modeled include mobile and area source emissions. Mobile source emissions are generated by vehicle trips to and from the project site. It is assumed that approximately two mobile trips per month would be required for routine maintenance and repair activities. Area source emissions are generated by consumer products and architectural coatings. The proposed project would not consume natural gas; therefore, air quality emissions from energy sources are excluded in this analysis. The analysis that follows reflects the proposed project as described in Section 9, Description of Project.

Table 3 summarizes the estimated average daily emissions and annual emissions of pollutants during project operations. As shown therein, operations-related emissions would not exceed BAAD thresholds. Therefore, project operations 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. This impact would be less than significant.

Table 3 Project Operational Emissions

Sources	Average Daily Emissions (pounds per day)					
	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$	SO_X
Mobile	<1	<1	<1	<1	<1	<1
Area	<1	<1	<1	<1	<1	<1
Total Project Emissions	<1	<1	<1	<1	<1	<1
BAAD Thresholds	54	54	N/A	82	54	N/A
Threshold Exceeded?	**No**	**No**	**N/A**	**No**	**No**	**N/A**
Annual Emissions (tons per year)						
Mobile	<1	<1	<1	<1	<1	<1
Area	<1	<1	<1	<1	<1	<1
Total Project Emissions	<1	<1	<1	<1	<1	<1
BAAD Thresholds	10	10	N/A	15	10	N/A
Threshold Exceeded?	**No**	**No**	**N/A**	**No**	**No**	**N/A**

ROG = reactive organic gases; NO_x = nitrogen oxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter no more than 10 microns; $PM_{2.5}$ = particulate matter with a diameter no more than 2.5 microns; SO_x = sulfur oxide N/A = not applicable (no BAAD threshold for CO or SO_X); BAAD = Bay Area Air District.

Source: Average daily and annual emissions. See Table 2.5 "Operations Emissions by Sector, Mitigated". See CalEEMod worksheets in Appendix A. Numbers may not add up due to rounding.

LESS THAN SIGNIFICANT IMPACT

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

BAAD has identified sensitive receptors as typically including children, the elderly, and individuals with preexisting serious health conditions. Sensitive receptors are most likely to spend time in land uses such as schools and schoolyards, parks and playgrounds, daycare centers and preschools, hospices, dormitories, prisons, nursing homes, hospitals, and residential communities (BAAD 2023). The nearest sensitive receptor to the project site is a single-family residence located 535 feet east of Greenville Road (measured from the eastern side of the residence to the western right-of-way boundary of Greenville Road). The following subsections evaluate the potential for sensitive receptors to be exposed to substantial concentrations of CO and TACs.

Carbon Monoxide Hotspots

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. Localized CO hotspots can occur at areas with high vehicle density, such as intersections with heavy peak hour traffic. A project's localized air quality impact is considered significant if CO concentrations exceed BAAD's one-hour standard of 20.0 parts per million(ppm) and eight-hour standard of 9.0 ppm (BAAD 2023).

BAAD recommends comparing project's attributes with the following screening criteria as a first step to evaluating whether the project would result in the generation of carbon monoxide concentrations that would substantially contribute to an exceedance of the *Thresholds of Significance*. The project would result in a less than significant impact to localized carbon monoxide concentrations if:

1. The project is consistent with an applicable congestion management program for designated roads or highways, regional transportation plan, and local congestion management agency plans.
2. The project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.

3. The project traffic would not increase traffic volumes at the affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage).

The project would generate two vehicle trips per month for maintenance and repair activities, adding minimal impact to existing traffic volumes. Additionally, as shown in Table 2, project construction would emit a minimal amount of CO, approximately three pounds per day. The construction activities would be temporary and are expected to generate a maximum of 103 vehicle trips per day, including work, vendor, and hauling trips. Therefore, the project would not result in a CO hotspot and impacts would be less than significant.

TACs

Construction Impacts

Construction-related activities would result in temporary project-generated emissions of diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, grading, building construction, and other construction activities.

CARB's Air Quality and Land Use Handbook: A Community Health Perspective (2005) recommends against siting sensitive receptors within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day. While these siting distances are not particular to construction activities, the primary source of TAC emissions from both freeways and construction equipment is DPM. Additionally, particulate pollution levels decrease by approximately 70 percent at 500 feet (CARB 2005). Therefore, as the nearest receptors to the project site is approximately 535 feet west of the project site, construction TAC emissions would have a negligible impact on the closest sensitive receptors. Additionally, OEHHA's health risk assessment guidance is to determine the exposure of sensitive receptors to toxic emissions on a 30-year exposure period (assumed to be the approximate time that a person spends in a household). Health risk assessments should be limited to the period/duration of activities associated with the proposed project. The project construction duration is approximately four months, which is approximately one percent for a 30-year health risk calculation period. The exposure duration for sensitive receptors would be minimal. This impact would be less than significant.

Operational Impacts

CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities). CARB guidelines recommend siting distances both for the development of sensitive land uses in proximity to TAC sources and for the addition of new TAC sources in proximity to existing sensitive land uses. The proposed project's land uses are not considered land uses that generate substantial TAC emissions based on reviewing the air toxic sources listed in CARB's guidelines. Therefore, project operation would not expose sensitive receptors to substantial TAC emissions. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

During construction activities, heavy equipment and vehicles would emit odors associated with vehicle and engine exhaust and during idling. Project construction would also generate transitory odors along haul truck routes. These odors would be intermittent and temporary and would cease upon completion. Common sources of operational odor complaints include sewage treatment plants, landfills, recycling facilities, and agricultural uses. The various components of the proposed project are not land uses that are associated with odor complaints. The proposed project does not involve development of new land uses with potential to cause significant odor impacts. As such, the proposed project would not result in objectionable odors affecting a substantial number of people.

NO IMPACT

4 Biological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
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 Wildlife 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, or regulations, or by the California Department of Fish and Wildlife 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?	☐	☐	■	☐

Setting

Rincon Consultants Inc. (Rincon) conducted a Biological Resources Assessment for the proposed project in April 2025, the Biological Resources Assessment is included as Appendix B.

Vegetation and Land Cover Types

Three vegetation communities and five land cover types were observed within the project site. Vegetation communities are defined based on the classification system presented in the *Manual of California Vegetation* (MCV), Online Edition (CNPS 2024b), and Preliminary Description of Terrestrial Natural Communities of California (Holland 1986) but have been modified slightly or expanded to reflect existing site conditions accurately. The California Department of Fish and Wildlife (CDFW) California Wildlife Habitat Relationships (CWHR) database was also referenced for describing the habitat types within the project site (Mayer and Laudenslayer 1988). Plant species nomenclature and taxonomy used for these descriptions follow the treatments within the second edition of *The Jepson Manual* (Baldwin et al. 2012).

Annual Grassland

This vegetation community occurs along the eastern boundary of the project site east of Greenville Road, and along the northwestern boundary of the project site surround the Martinelli Center parcel. This vegetation community most closely resembles the *Avena* spp. - *Bromus* spp. Herbaceous Semi-Natural Alliance in the MCV Online Edition. Species composition in this community is highly variable and may contain occasional native or ornamental trees and shrubs; however, non-native grasses are dominant, including wild oats (*Avena* spp.) and ripgut brome (*Bromus diandrus*). Some weedy species were also observed in this community, including English plantain (*Plantago lanceolata*), black mustard (*Brassica nigra*), and milk thistle (*Silybum marianum*). This community has historically been used for grazing. The East Alameda County Conservation Strategy (EACCS) defines this community as California annual grassland, which corresponds to Annual grassland in the CWHR.

Fremont Cottonwood Riparian

This vegetation community occurs along the banks of Arroyo Seco, at the eastern edge of the project site, and is dominated by Fremont cottonwood (*Populus fremontii*), with some valley oak (*Quercus lobata*), willow (*Salix* sp.), and blue gum (*Eucalyptus globulus*). This vegetation community most closely corresponds to the Fremont cottonwood forest and woodland *Populus fremontii - Fraxinus velutina - Salix gooddingii* Forest & Woodland Alliance in the MCV Online Edition. The EACCS defines this community more broadly as mixed riparian forest and woodland, which corresponds to Valley-foothill riparian in the CWHR.

California Sagebrush

This vegetation community occurs along the west side of Greenville Road, north of Arroyo Seco, and is comprised of a stand of California sagebrush (*Artemisia californica*). This vegetation community most closely corresponds to the California sagebrush - (purple sage) scrub A*rtemisia californica* - (*Salvia leucophylla*) Shrubland Alliance in the MCV Online Edition. The EACCS defines this community more broadly as Northern coastal scrub/Diablan sage scrub, which corresponds to Coastal scrub in the CWHR.

Ruderal

This land cover type consists of areas that have been heavily disturbed or altered such that natural vegetation has largely been removed and occurs along the west side of Greenville Road near the Arroyo Secco crossing. These sites do not correspond well with the MCV Online Edition classification system, but are included in the EACCS. Within the project site, ruderal land cover occurs along the roadsides and along the edges of Arroyo Seco where regular vegetation removal occurs during maintenance of the neighboring vineyard. Ruderal land cover includes species such as mustard (*Brassica* sp.), milk thistle (*Silybum marianum*), and fennel (*Foeniculum vulgare*), as well as some tobacco tree (*Nicotiana glauca*).

Landscaped

This land cover type is not naturally occurring and is not described in MCV Online Edition or the EACCS classification systems. Plant species found in this land cover type typically consist of either non-native ornamental species or planted native species that do not exist as part of a natural community. This land cover type occurs at the far south end of the project site.

Vineyard

This land cover type is not naturally occurring and consists of cultivated vineyards, usually arranged in monotypic rows with supplemental irrigation. This land cover type occurs within the vineyards surrounding the eastern portion of the Martinelli Center parcel. Vineyards are not classified in the MCV Online Edition classification system but are included in the EACCS.

Developed

This land cover type is not naturally occurring and is not described in the MCV Online Edition, CWHR, or the EACCS classification systems. This land cover type consists of areas that have been modified such that most or all vegetation has been removed or only small areas of landscaped or ruderal vegetation are present. Within the project site, this land cover type includes paved and gravel roads, buildings, parking lots, and driveways.

Special Status Plant Species

Forty-six (46) special-status plant species known to occur in the vicinity of the project site were evaluated for their potential to occur in the project site. No special-status plant species were observed during the field survey on November 6, 2024, and February 12; however, it was performed outside of the typical blooming period for most special-status plant species. Special-status plant species typically have specialized habitat requirements, including vegetation community types, soils, and/or elevational ranges. Based on the lack of required habitat types or features in the project site, such as coniferous forest, oak woodlands, chaparral, native grassland communities, rocky outcrops, serpentine or alkaline soils, vernal pools and other species-specific habitat requirements, and level of disturbance for landscape and agricultural activities, all 46 special-status plant species were excluded from further evaluation.

Special Status Wildlife

Wildlife species observed within the project site during the field reconnaissance surveys included birds, reptiles, and insect species commonly found in urban or developed areas. Introduced bird species observed included rock pigeon (*Columba livia*), house sparrow (*Passer domesticus*), and European starling (*Sturnus vulgaris*). Native bird species observed included American crow (*Corvus brachyrhynchos*), turkey vulture (*Cathartes aura*), and house finch (*Haemorhous mexicanus*). Western fence lizard (*Sceloporus occidentalis*) was the only reptile species observed. A complete list of wildlife species observed during the field survey is provided in Appendix B.

Forty-six (46) special-status wildlife species known to occur in the region were evaluated for their potential to occur in the project site. Eight special-status wildlife species have a low potential to occur, four have a moderate potential to occur, and four have a high potential to occur within the project site (Table 4). These are discussed further below.

The remaining 30 species were excluded from further analysis based on the lack of required habitat types or features in the project site such as desert, forested, or riverine habitats, or mountainous terrain, or because the project area is outside of the species" known range. No special-status wildlife species were observed during the field survey.

Migratory birds protected by the MBTA and nesting birds and raptors protected under CFGC Section 3503.5 have the potential to breed and forage throughout the project site. Suitable nesting habitat includes trees, shrubs, grasses, and the ground surface.

Table 4 Special-status Animals with Potential to Occur in the Project Area

Common Name	Scientific Name	Status
Low Potential to Occur		
California glossy snake	*Arizona elegans occidentalis*	SSC
Crotch's bumble bee	*Bombus crotchii*	State candidate endangered
Monarch - California overwintering population	*Danaus plexippus plexippus* pop. 1	Federal candidate
Northwestern pond turtle	*Actinemys marmorata*	Federally proposed threatened
San Joaquin coachwhip	*Masticophis flagellum ruddocki*	SSC
Tricolored blackbird	*Agelaius tricolor*	State threatened
Swainson's hawk	*Buteo swainsoni*	State threatened
American badger	*Taxidea taxus*	SSC
Moderate Potential to Occur		
Western spadefoot	*Spea hammondii*	Federally proposed threatened
Burrowing owl	*Athene cunicularia*	SCE
White-tailed kite	*Elanus leucurus*	FP
Loggerhead shrike	*Lanius ludovicianus*	SSC
High Potential to Occur		
California tiger salamander – central California DPS	*Ambystoma californiense* Pop. 1	Federal and state threatened
California red-legged frog	*Rana draytonii*	Federally threatened
Cooper's hawk	*Accipiter cooperii*	WL
Ferruginous hawk	*Buteo regalis*	WL

SSC = CDFW Species of Special Concern FP = State Fully Protected WL = State Watch List
SCE = State Candidate Endangered

Jurisdictional Waters and Wetlands

Arroyo Seco originates in the Altamont Hills southeast of the project site, and flows northwest into Arroyo Las Positas, a perennial stream, within urban development. Arryo Seco was dry at the time of the field survey, and a review of aerial imagery indicates this feature is ephemeral within the project site, and likely only flows during rain events. West of the bridge at Greenville Road, Arroyo Seco is wide and shallow with several branching streambed channels, and annual ruderal species dominate. Near the Martinelli Center, a side channel and riparian corridor occur below the hill slope. Arroyo Seco is likely to be under the jurisdiction of the RWQCB pursuant to the Porter-Cologne Water Quality Control Act, and CDFW jurisdiction pursuant to California Fish and Game Code Section 1600. The potential for open-cut trenching through Arroyo Seco has been fully considered in the impact analysis.

Regulatory Setting

Sensitive biological resources analyzed herein include special-status plant and wildlife species, nesting birds, sensitive vegetation communities, potentially jurisdictional waters and wetlands, wildlife movement corridors, regionally protected resources (e.g., resources included in County-wide Habitat Conservation Plans [HCPs] and Natural Community Conservation Plans [NCCPs]), and locally protected resources, such as protected trees. Regulatory authority over biological resources is shared by Federal, State, and local authorities. State agencies with regulatory authority include the Regional Water Quality Control Board

(RWQCB), pursuant to the Porter-Cologne Water Quality Control Act, and the California Department of Fish and Wildlife (CDFW), pursuant to Fish and Game Code Section 1600. Primary authority for regulation of general biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, Alameda County).In addition, the potential for open-cut trenching through Arroyo Seco has been fully considered in the impact analysis presented below.

Impact Analysis

a. *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

Special-status Plants

No federally listed or other special-status plant species were determined to have potential to occur within the project site, and none were observed during the reconnaissance survey. No impacts to special-status plant species would occur.

Special-status Wildlife

Eight special-status wildlife species occur or have a moderate to high potential to occur within the project site based on known ranges, habitat preferences, species occurrence records near the project site, and presence of suitable habitat: western spadefoot, burrowing owl, white-tailed kite, loggerhead shrike, California tiger salamander, California red-legged frog, Cooper's hawk, and ferruginous hawk. Six species have a low potential to occur and therefore are not discussed further. Native nesting birds protected by the MBTA may also be present within the project site and immediate vicinity.

Western Spadefoot

Western spadefoot, a federally proposed threatened species and CDFW Species of Special Concern, has a moderate potential to occur in the project site, primarily along Arroyo Seco and in undeveloped areas north of the Martinelli Center; however, dispersal habitat may include upland areas up to 0.38 miles away from and between aquatic features (USFWS 2023). Direct impacts to western spadefoot could occur through mortality or injury during ground disturbing activities for the sewer expansion and modifications to the Martinelli Center. Indirect impacts to western spadefoot may occur during construction in the vicinity of drainages or ponds that contain suitable aquatic habitat through degradation of water quality from potential spills or construction generated erosion if upslope of such features. Given the proximity to known breeding habitat and regional significance, impacts to this species are potentially significant. With implementation of mitigation measures BIO-1(a), 1(b), and 1(c), impacts to western spadefoot would be less than significant.

California Tiger Salamander

California tiger salamander, a federal and state threatened species, and EACCS focal species, has a high potential to occur in the project site, primarily along Arroyo Seco and in undeveloped areas north of the Martinelli Center. This species can traverse upland areas up to 3.1 miles away from and between aquatic breeding habitat. There are three documented occurrences within the project site, including one within Arroyo Seco in the project site (occurrences 184, 227, and 898; CDFW 2024a), and suitable upland and aquatic habitat occurs adjacent to the project site within 3.1 miles. The closest known breeding pond is 192 feet west of the north end of the project site on the other side of the aqueduct, and closest potential breeding pond is 302 feet northeast of the north end of the project site, east of Greenville Road. This potential breeding pond and suitable upland habitat are connected to the project site via a culvert under Greenville Road, and additional potential breeding ponds in the immediate vicinity of Arroyo Secco and the project site.

Direct impacts to California tiger salamander could occur through mortality or injury during ground disturbing activities. Indirect impacts to California tiger salamander may occur during construction in the vicinity of drainages or ponds that contain suitable aquatic habitat through degradation of water quality from potential spills, frac-out (i.e., the unintentional release of drilling fluids to the surface during trenchless installation methods), or construction generated erosion if upslope of such aquatic features. Frac-out poses a potential risk to aquatic and upland habitats and could occur if trenchless methods (e.g., horizontal directional drilling) are used near aquatic features.

Direct effects to water quality would be avoided through use of spill prevention and erosion control Best Management Practices (BMPs) and compliance with the NPDES permit consistent with the Alameda County Code of Ordinances (Section 13.08 Stormwater Management and Discharge). If trenchless methods are used, frac-out prevention and response measures would be required such as, frac-out monitoring and contingency planning, consistent with industry standards and permit requirements.

Development of the proposed project would impact upland areas and potentially Arroyo Seco below top of bank if open trenching is used. Impacts to Arroyo Seco would require regulatory permitting and work would likely be restricted to the dry season, when California tiger salamanders are not likely to be present. Implementation of mitigation measures BIO-1(a), 1(b), and 1(c) would reduce proposed project impacts to a less-than-significant level.

California Red-legged Frog

California red-legged frog, a federally threatened species, CDFW Species of Special Concern, and EACCS focal species, has a high potential to occur in the project site, primarily along Arroyo Seco and in undeveloped areas north of the Martinelli Center; however, it traverses upland areas up to one mile away from and between aquatic features. There is a known occurrence within Arroyo Seco in the project site (occurrence 786; CDFW 2024a), and suitable upland and aquatic dispersal habitat and riparian upland refugia is present.

Potential direct impacts to California red-legged frog include harassment or injury of individuals if they are present within the project site during construction. Development of the proposed project would impact upland areas and potentially Arroyo Seco below top of bank if open trenching is used. Impacts to Arroyo Seco would require regulatory permitting and work would likely be restricted to the dry season, when California red-legged frog are less likely to be present. Additionally, direct impacts could occur within riparian and dispersal habitat in Arroyo Seco through uncontrolled spills or leaks. Direct effects to water quality would be avoided through use of spill prevention and erosion control BMPs and compliance with the NPDES permit, consistent with the Alameda County Code of Ordinances (Section 13.08, Stormwater Management and Discharge). Implementation of mitigation measures BIO-1(a), 1(b), and 1(c) would reduce proposed project impacts to a less-than-significant level.

Burrowing Owl

Burrowing owl, a state candidate endangered and EACCS focal species, has a moderate potential to occur within the project site. The closest known occurrence is approximately 0.2 miles west of the project site (occurrence 926; CDFW 2024a), and suitable foraging habitat is present. If burrowing owls are present in disturbance areas when proposed project activities occur, the species may be directly impacted through injury or mortality of individuals resulting from collisions with project vehicles or equipment; destruction of occupied burrows and/or active nest sites; and disturbance from increased vehicle traffic, noise at work sites, and human presence that could result in an interruption of normal behaviors or nest abandonment. Implementation of mitigation measures BIO-1(a), and 1(d) would reduce proposed project impacts to a less-than-significant level.

Special-Status Raptors and Migratory Birds

White-tailed kite (fully protected), loggerhead shrike (California species of special concern), Cooper’s hawk (watch list), and ferruginous hawk (watch list) have a moderate potential to occur within the project

vicinity. White-tailed kite and Cooper's hawk may nest in tall trees along Arroyo Seco, and loggerhead shrike may nest in trees and shrubs in the vicinity of the project site. The project site is outside the breeding range of ferruginous hawk; impacts to individuals that may forage in the vicinity of the project site are not expected, as these non-nesting individuals would be able to avoid any sources of disturbance.

Native birds could potentially nest in all areas of the project site. Construction activity has the potential to directly impact native birds through the destruction of nests during vegetation clearing and reduced nesting success due to disturbance from project activities; or indirectly through impacts to nesting habitat or degradation of foraging habitat from invasive plants, fugitive dust, erosion, and runoff. Implementation of mitigation measures BIO-1(a), and 1(e) would reduce proposed project impacts to a less-than-significant level.

Mitigation Measures

BIO-1(a) Worker Environmental Awareness Program (WEAP)

Prior to initiation of construction activities (including staging and mobilization) all personnel associated with project construction shall attend a Worker Environmental Awareness Program (WEAP) training, conducted by a qualified biologist, to aid workers in recognizing special-status biological resources that may occur in the construction area. This program shall include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and measures required to reduce impacts to biological resources within the work area.

A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employees, and other personnel involved with construction. All employees shall sign a form provided by the qualified biologist to document that they have attended the WEAP and understand the information presented to them. The crew foreman shall be responsible for ensuring crew members adhere to the guidelines and restrictions designed to avoid impacts to special-status species. If new construction personnel are added to the proposed project, the crew foreman shall ensure that the new personnel receive the WEAP training before starting work.

BIO-1(b) Western Spadefoot, California Tiger Salamander, and California Red-legged Frog Pre-construction Surveys

No more than seven days prior to the start of any construction activities including mobilization, demolition, staging, and initial ground disturbance, a qualified biologist shall conduct surveys for western spadefoot, California tiger salamander, and California red-legged frog within suitable habitat on the project site as feasible. The biologist shall also oversee installation of exclusion fencing where suitable habitat is present to prevent the species from entering active work areas.

If any life stage of western spadefoot, California tiger salamander, or California red-legged frog is detected at any time throughout the duration of the proposed project, project activities shall cease, and the United States Fish and Wildlife Service (USFWS) shall be notified. If the USFWS determines that adverse effects to the species or habitat cannot be avoided, the proposed project shall not commence until further guidance from the USFWS is provided. If California tiger salamander are detected the California Department of Fish and Wildlife (CDFW) shall also be notified.

A report of all pre-construction survey efforts shall be submitted to Alameda County within 30 days of completion of the survey effort to document compliance. The report shall include the dates, times, weather conditions, and personnel involved in the surveys and monitoring.

BIO-1(c) Western Spadefoot, California Tiger Salamander, and California Red-legged Frog Avoidance and Minimization

The following mitigation measures shall be implemented to reduce impacts to western spadefoot, California tiger salamander, and California red-legged frog:

- To the greatest extent possible, work activities within 100 feet of Arroyo Seco and undeveloped areas north of the Martinelli Center shall be completed between May 1 and October 15 to avoid the breeding season of western spadefoot, California tiger salamander, and California red-legged frog, when activities would be most disruptive to the species.
- To the greatest extent possible, work activities below top of bank of Arroyo Seco shall be completed during the dry season, between June 1 and October 15; however, construction can occur outside this window provided no flowing or ponded water associated with Arroyo Seco is present within 50 feet of any work area.
- No work shall occur in undeveloped areas during a rain event (over 0.25 inch). If work resumes within 24 hours of a rain event, a qualified biologist shall inspect the site again prior to resuming work.
- A qualified biologist with experience in identification of all life stages of western spadefoot, California tiger salamander, and California red-legged frog, shall be present during all ground disturbing project activities within undeveloped areas north of the Martinelli Center, along Greenville Road, and within 100 feet of Aroyo Seco, and inspect all holes and trenches each morning, prior to the start of work.
- A qualified biologist shall stake and flag an exclusion zone prior to activities. The exclusion zone shall be fenced with orange construction zone and erosion control fencing (to be installed by construction crew). The exclusion zone shall encompass the maximum practicable distance from the work site and at least 500 feet from the aquatic feature wet or dry, as feasible.
- The construction crew shall be trained during the WEAP training to check beneath the staged equipment each morning prior to commencement of daily construction activities.
- If a work site is to be temporarily dewatered by pumping, the intake shall be screened with wire mesh not larger than 0.2 inch to prevent any western spadefoot, California tiger salamander, and California red-legged frog not initially detected from entering the pump system.
- No monofilament plastic shall be used for erosion control.
- Trenches shall be backfilled as soon as possible. Open trenches shall be searched each day prior to construction to ensure no wildlife are trapped. Earthen escape ramps shall be installed at intervals prescribed by a qualified biologist.
- Pipes, culverts, and similar materials greater than four inches in diameter shall be stored so as to prevent wildlife from using these as temporary refuges, and these materials shall be inspected each morning for the presence of animals prior to being moved.
- Grading shall be restricted to the minimum area necessary.
- To ensure that diseases are not conveyed between work sites the biologist(s) shall adhere to the following fieldwork practices:
  - Remove mud, snails, algae, and other debris from boots, vehicle tires, and all other equipment. Rinse cleaned items with sterilized (e.g., boiled or treated) water before leaving each work site.
  - Boots, nets, traps, and other types of equipment used in the aquatic environment should then be scrubbed with 70 percent ethanol solution and rinsed clean with sterilized water between study sites. Avoid cleaning equipment in the immediate vicinity of a pond, wetland, or riparian area.
  - Used cleaning materials and fluids shall be disposed of safely and, if necessary, taken back to the lab for proper disposal.

BIO-1(d) Burrowing Owl Impact Avoidance and Minimization

Prior to project activities, a qualified biologist shall conduct a habitat assessment to determine if potential habitat for burrowing owl is present in or near the project area. If potential habitat is present in or within 500 feet of the project area, a qualified biologist shall conduct a pre-construction survey of the project area (plus a 500-foot buffer as access allows) for the presence of burrowing owl. The survey shall be conducted no more than 14 days prior to ground disturbing activities and shall conform to CDFW guidelines for burrowing owl survey protocol outlined in Appendix C of the 2012 CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). A report of all pre-construction survey efforts and results shall be submitted to the County within 30 days of completion of the survey. The report shall include the dates, times, weather conditions, and personnel involved in the survey. Depending on survey results, the report shall also include observations of burrowing owl or potential burrows, the location and habitat description of the observations. If burrowing owl, active burrows, or their sign (i.e., tracks or pellets) are not observed in the project area, no additional measures related to impact avoidance and minimization of the absent species are recommended. If burrowing owl, active burrows, or their sign are observed in the project area, the following measures shall be implemented:

- A qualified biological monitor shall be present on-site to document burrowing owl observations, burrow statuses, and ensure that construction activities do not negatively affect burrowing owl. The duration and frequency of monitoring shall be determined at the discretion of the qualified biologist and a monitoring report detailing monitoring results shall be submitted to the County within 30 days of the completion of project activities or breeding season (February 1 to August 31), if applicable.
- If an active nest is identified near a proposed work area, work shall be conducted outside of the nesting season (September 1 to January 31).
- If an active nest is identified near a proposed work area and work cannot be conducted outside of the nesting season, a no-activity zone shall be established by a qualified biologist. The no-activity zone shall be large enough to avoid nest abandonment and would at a minimum be a 656-foot (200-meter) radius from the nest.
- If burrowing owls are present at the site during the non-breeding period, a qualified biologist shall establish a no-activity zone of at least 328 feet (100 meters).
- If an effective no-activity zone cannot be established in either case, an experienced burrowing owl biologist shall develop a site-specific plan (i.e., a plan that considers the type and extent of the proposed activity, the duration and timing of the activity, the sensitivity and habituation of the owls, and the dissimilarity of the proposed activity with background activities) to minimize the potential to affect the reproductive success of the owls.
- If active burrow avoidance is infeasible during the non-breeding season or during the breeding season, where resident owls have not yet begun egg laying or incubation, or where the juveniles are foraging independently and capable of independent survival, a qualified biologist shall implement a passive relocation program consistent with Appendix C of the 2012 CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) and in consultation with CDFW.
- A habitat mitigation plan shall be developed in coordination with the County and CDFW for loss of active burrowing owl burrow sites if implementation of a passive relocation plan is necessary and/or burrowing owl are documented to nest on site or within 500 feet of the project area. This would be based upon the portion of the proposed project that overlaps with the primary foraging area around the burrow site (approximately 500-foot buffer) to be replaced a minimum 1:1 ratio.

BIO-1(e) Pre-construction Surveys for Nesting Birds and Raptors

If construction is scheduled to commence during the non-breeding season (September 1 to January 31), no pre-construction surveys or additional measures for nesting birds or other raptors would be required. Prior to ground disturbing and vegetation removal activities that are initiated during the breeding season (February 1 to August 31), a qualified wildlife biologist shall conduct pre-construction surveys of all potential nesting habitats within the project area. The raptor survey should focus on potential nest sites

(e.g., large trees and shrubs) within 500-feet of the site for raptors. Nesting bird surveys shall be conducted within 14 days of the start of ground-disturbing or vegetation removal activities. Surveys need not be conducted for the entire project area at one time, and may be conducted in phases consistent with construction activity schedules. The surveying biologist must be qualified to determine the status and stage of nesting by migratory birds and all locally breeding raptor species without causing intrusive disturbance.

If active nests are found, a suitable no-work buffer should be established around active nests. Buffers should be determined by a qualified biologist and be established based on the species and nest location, to allow for known species" behavior and environmental factors (e.g., line of sight to nest) when establishing avoidance buffers. Standard buffers are typically 200 to 500 feet for common raptors and 30 to 50 feet for most common passerines. No access into buffer areas shall be allowed until a qualified biologist has determined that the nestlings have fledged and are no longer reliant on the nest or the nest has become otherwise inactive (e.g., depredation). Encroachment into the buffer may occur at the discretion of a qualified biologist and with the appropriate biological monitoring; however, for State-listed species, CDFW should be consulted for approval of buffer encroachment or reduction.

Significance after Mitigation

Implementation of mitigation measures BIO-1(a) through BIO-1(e) would ensure that potential impacts to special-status species are reduced to less-than-significant through worker training, pre-construction surveys, exclusion measures, construction timing restrictions, and habitat protection protocols. These measures would reduce impacts related to habitat modifications for species identified as candidate, sensitive, or special-status under local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service, to a less-than-significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The Fremont cottonwood riparian area within the project site is considered a sensitive vegetation community by CDFW; however, no project elements are proposed within the riparian corridor adjacent to the project site. Direct impacts to this community could occur if construction equipment, debris, or spills inadvertently enter the riparian area. However, direct effects to water quality would be avoided by adherence to applicable stormwater control provisions consistent with the Alameda County Code of Ordinances (Section 13.08 Stormwater Management and Discharge). With spill prevention and erosion control and mitigation measures BIO-1(a) and 1(c), impacts to sensitive natural communities would be less than significant.

Mitigation Measures

Mitigation Measures BIO-1(a–c) and BIO-2 are designed to address direct and indirect impacts to riparian habitat, special-status species, and water quality associated with the potential open-cut trenching method. These measures would require a combination of environmental training, pre-construction species surveys, seasonal work restrictions, biological monitoring, and habitat avoidance protocols. These measures are designed to avoid or minimize impacts to special-status amphibians and nesting birds, including western spadefoot, California tiger salamander, and California red-legged frog that may occur in riparian habitat.

Significance After Mitigation

Implementation of mitigation measures BIO-1(a) through BIO-1(c) would ensure that potential impacts to riparian or other sensitive natural community are reduced to a less-than-significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project 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?

Arroyo Seco is comprised of ruderal vegetation and bare streambed within the project site at the Greenville Road bridge. No riparian habitat is present adjacent to the bridge.

The sewer expansion would involve attaching a pipeline to the bridge or installing the pipeline beneath Arroyo Seco. Installation of the pipeline beneath Arroyo Seco may be accomplished through open trenching or jack-and-bore drilling. If the pipeline is attached to the bridge, no ground disturbance within the streambed would occur, and impacts to jurisdictional wetlands or waters would be avoided. Direct effects to water quality would be avoided through use of spill prevention and erosion control BMPs and compliance with the NPDES permit, consistent with the Alameda County Code of Ordinances (Section 13.08, Stormwater Management and Discharge). The proposed project safeguard and preserve watercourses, control erosion and sedimentation, restrict discharge of polluted materials and enhance beneficial uses of watercourses, consistent with the County Public Works Agency Watercourse Protection Ordinance (Chapter 13-12). Additionally, if open trench or jack-and-bore construction methods are used, regulatory permitting conditions would require Arroyo Seco to be restored to its original condition following installation of the pipeline. Therefore, the proposed project would not result in substantial adverse effects to jurisdictional areas, but would require authorization from RWQCB and CDFW in the form of a Water Quality Certification and Streambed Alteration Agreement. With implementation of the NPDES stormwater requirements, restoration of temporary impacts to Arroyo Seco, and mitigation measures BIO-1(a) and BIO-2, impacts would be reduced to less than significant.

Mitigation Measures

BIO-2 Arroyo Seco Restoration

If the project design requires installation of the pipeline beneath the creek bed or within the riparian corridor, Temporary Impacts to Arroyo Seco shall be mitigated at a minimum ratio of 1:1 (acres of habitat restored to acres impacted). Upon final project design, a County-approved biologist shall determine the final impacts to waters and the subsequent amount of acreage needed for restoration for the proposed project. Restoration shall occur within the project site, and the site shall be fully restored to pre-project conditions.

Significance After Mitigation

Implementation of mitigation measures BIO-1(a) and BIO-2 would ensure that the proposed project would include restoration of adversely effected state or federally protected wetlands should the open-cut trenching method be used for installation of the pipeline and that the impact would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

d. Would the project 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?

The project site provides opportunities for local movement but does not represent a significant corridor for regional wildlife movement. The proposed project would not result in new barriers for movement along Arroyo Seco, and large areas of open space occur to the east along the Diablo Range. Therefore, the proposed project would not interfere substantially with the movement of wildlife species, and impacts to wildlife movement would be less than significant.

LESS THAN SIGNIFICANT IMPACT

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No protected trees are proposed for removal; therefore, the project would not conflict with local tree protection ordinances.

The East County Area Plan includes goals and policies to preserve a variety of plant communities and wildlife habitat, including Policy 125: to encourage preservation of areas known to support special-status species, and Policy 126: to encourage no net loss of riparian and seasonal wetlands. With implementation of mitigation measures BIO-1(a) through 1(d) and BIO-2, impacts to protected resources would be less than significant and the proposed project would not conflict with local policies or ordinances.

Mitigation Measures

Mitigation measures BIO-1(a) through BIO-1(d) under Impact *4.a* require a combination of environmental training, pre-construction species surveys, seasonal work restrictions, biological monitoring, and habitat avoidance protocols. These measures are designed to avoid or minimize impacts to special-status amphibians and nesting birds, including western spadefoot, California tiger salamander, and California red-legged frog. Additionally, Mitigation Measure BIO-2 requires temporary impacts to the Arroyo Seco to be mitigated at minimum 1:1 ratio and restoration within the project site.

Significance After Mitigation

Implementation of mitigation measures BIO-1(a) through BIO-1(d) and BIO-2 would ensure that potential impacts to riparian or other sensitive natural communities are reduced to a less-than-significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The EACCS is not an adopted habitat conservation plan or natural community conservation plan but is intended to provide guidance and recommendations to address species impacts for the purpose of project permitting under the federal and State Endangered Species Acts. Consistent with the EACCS, the proposed project would not directly convert parcels adjacent to the project site to a different land use; rather it would serve development on adjacent parcels consistent with the EACCS. Therefore, the proposed project would not conflict with any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
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 formal cemeteries?	☐	☐	■	☐

Setting

Rincon Consultants conducted a Cultural Resources Assessment for the proposed project in May 2025. The Cultural Resources Assessment is included as Appendix C to this Initial Study. This assessment included a cultural resources records search of the California Historical Resources Information System at the Northwest Information Center (NWIC), a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search, and archival and background research, including a desktop geoarchaeological review. Rincon also conducted a pedestrian survey of the project footprint as part of the study (Appendix C).

The NWIC records search was performed to identify previously conducted cultural resources studies as well as previously recorded cultural resources within the project site and a 0.5-mile radius. The records search included a review of available records at the NWIC as well as the National Register of Historic Places, the CRHR, the California Historical Landmarks list, the Built Environment Resources Directory, the California State Historic Property Data File, and the Archaeological Determinations of Eligibility list. The NWIC records search identified four cultural resources studies conducted within 0.5-mile of the project site, one overlapped a portion of the project site and one occurred adjacent to the project site. The NWIC research identified no cultural resources within a 0.5-mile radius of the project site. No cultural resources were identified in or adjacent to the project site as a result of the NWIC records search.

No archaeological resources were identified during the field survey of the project site. The field survey and background research resulted in the identification of three historic-age resources within the project site: Arroyo Seco Bridge (Bridge No. 33C0240), as well as two 230kV transmission lines segments with a single associated steel lattice tower (a segment of the Tesla-Newark No.1 transmission line, and a segment of the Tesla-Newark No. 2 transmission line).

Rincon contacted the NAHC on November 5, 2024, to request a search of the SLF. On November 5, 2024, the NAHC responded to Rincon's Sacred Lands File (SLF) request, stating that the results of the SLF search were negative, meaning no sacred lands have been reported in the vicinity of the project site. Potential project impacts to tribal cultural resources are discussed in Section 18, *Tribal Cultural Resources*.

Regulatory Setting

California Environmental Quality Act (CEQA) Under the California Environmental Quality Act (CEQA), lead agencies must determine whether a project could significantly impact historical or unique archaeological resources, as defined in Public Resources Code (PRC) Sections 21084.1 and 21083.2. Historical resources include those listed in or eligible for the California Register of Historical Resources (CRHR),

local registers, or those deemed significant by the lead agency. If not considered historical, archaeological resources may still qualify as "unique" if they meet specific scientific or cultural criteria. Impacts that cause a substantial adverse change to such resources—such as demolition, destruction, or alteration—are considered significant under CEQA. CEQA Guidelines Sections 15064.5 and 15126.4 provide further direction for identifying, evaluating, and mitigating impacts to these resources, including preservation in place, data recovery, and adherence to the Secretary of the Interior's Standards. If resources cannot be avoided or preserved in place, feasible mitigation measures must be implemented to reduce impacts to a less-than-significant level.

California Register of Historical Resources (CRHR), which was established in 1992 and codified in PRC Section 5024.1 and Title 14 Section 4852, serves as an authoritative guide for identifying and protecting significant historical resources in California. While its eligibility criteria align with those of the National Register of Historic Places (NRHP), the CRHR is tailored to better reflect the state's diverse history and does not impose a strict age threshold for listing. A resource may be eligible if enough time has passed to evaluate its historical or architectural significance, even if it lacks the integrity required for NRHP eligibility. Generally, the Office of Historic Preservation (OHP) recommends evaluating resources over 45 years old. A property may be listed in the CRHR if it: (1) is associated with significant historical events; (2) is connected to the lives of important individuals; (3) represents distinctive characteristics of a type, period, or method of construction or has artistic merit; or (4) has yielded or may yield important historical or prehistoric information.

California Health and Safety Code Section 7050.5 of the California Health and Safety Code states that, in the event of discovery or recognition of any human remains 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 Coroner of the county in which the remains are discovered has determined if the remains are subject to the Coroner's authority. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification.

California Public Resources Code Section 5097.98 Section 5097.98 of the PRC states that the NAHC, upon notification of the discovery of Native American human remains pursuant to Health and Safety Code Section 7050.5, shall immediately notify those persons (i.e., the Most Likely Descendant [MLD]) that it believes to be descended from the deceased. With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

Alameda County Historic Preservation Ordinance outlines criteria for listing properties in the Alameda County Register of Historic Resources as County Landmarks, Structures of Merit, Historic Preservation Districts, or Contributing Resources. A property may be designated a Landmark if it is historically or architecturally significant, retains sufficient integrity, and has been evaluated by a qualified professional. Historic Preservation Districts must contain a concentration of historically or architecturally unified resources and meet specific integrity and procedural requirements. Structures of Merit are those that contribute to the visual or historical character of an area, even if not individually significant. Contributing Resources are properties within designated historic districts that reflect the district's significance or have the potential to provide important historical or architectural information. The ordinance ensures that these designations are used to protect and promote the County's historic character.

Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Impact *5.a* broadly refers to historical resources. To more clearly differentiate between archaeological and built environment resources, the analysis under Impact *5.a* is limited to built environment resources. Archaeological resources, including those that may be considered historical resources pursuant to Section 15064.5 and those that may be considered unique archaeological resources pursuant to Section 21083.2, are considered under Impact *5.b.*

As part of the Cultural Resources Assessment, Rincon evaluated the segments of the Tesla-Newark No.1 and Tesla-Newark No. 2 transmission lines within the project site for eligibility to be listed on the NRHP and the CRHR. Rincon recommended Tesla-Newark No.1 and Tesla-Newark No. 2 transmission lines ineligible for listing in the CRHR and Alameda County Register due to a lack of historical and architectural significance. Additionally, the Arroyo Seco Bridge was previously recommended ineligible for the NRHP in 2021 by Caltrans. The bridge is recommended ineligible for listing in the CRHR and the Alameda County Register due to a lack of historical and architectural significance. As such, the property does not qualify as a historical resource pursuant to CEQA. Supporting documentation for these findings is provided in Appendix C. None of the evaluated resources qualify as a historical resource pursuant to CEQA. There are no known historical resources within the project site. Therefore, the proposed project would not result in a substantial adverse change to the significance of a historical resource and the proposed project would have no impact.

NO IMPACT

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

The Cultural Resources Assessment did not identify archaeological resources within the project site as a result of the CHRIS records search, NAHC SLF search, or pedestrian survey. The project site was used as agricultural land during the 1940s and for industrial agriculture after 1960. Agricultural use causes shallow ground disturbance due to plowing and cultivation; however, construction of the existing modern structures within the projects site along with facility upgrades and periodic maintenance would have likely resulted in the modification and extensive disturbance of the soils within the project site. While cultural sensitivity may be slightly increased due to the proximity of one main fresh water source (Arroyo Seco), the absence of substantial prehistoric or historic-period archaeological resources within the immediate vicinity, along with the existing level of disturbance in the project site, suggest there is a low potential for encountering intact subsurface archaeological resources that may qualify as historical resources or unique archaeological resources pursuant to CEQA. However, unanticipated discoveries during construction remain a possibility. With implementation of Mitigation Measure CR-1, which includes standard conditions for unanticipated discoveries during construction, impacts would be less than significant with mitigation incorporated.

Mitigation Measure

CR-1 Unanticipated Discovery of Cultural Resources

In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the resource. If the resource is determined by the qualified archaeologist to be prehistoric, then a Native American representative shall also be contacted to participate in the evaluation of the resource. If the qualified archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for CRHR eligibility shall be

completed. If the resource proves to be eligible for the CRHR and significant impacts to the resource cannot be avoided via project redesign, a qualified archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, pursuant to the requirements of CCR Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, the qualified archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. The County shall review and approve the treatment plan and archaeological testing as appropriate, and the resulting documentation shall be submitted to the regional repository of the California Historical Resources Information System, pursuant to CCR Guidelines Section 15126.4(b)(3)(C).

Significance After Mitigation

Implementation of Mitigation Measure CR-1 would reduce potential impacts on archeological resources to less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

No known burials or cemeteries are recorded within the project site. However, the discovery of human remains is always a possibility during ground-disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be Native American, the Coroner would notify the Native American Heritage Commission, which would determine and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection of the site and provide recommendations for treatment to the landowner within 48 hours of being granted access. With adherence to existing regulations, impacts to unanticipated human remains would be less than significant.

LESS THAN SIGNIFICANT IMPACT

6 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
Would the project:				
a. Result in a 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?	☐	☐	☐	■

Setting

As a state, California is one of the lowest per capita energy users in the nation due to its energy efficiency programs and mild climate, followed only by New York and Rhode Island (United States Energy Information Administration 2022). Electricity and natural gas are primarily consumed by the built environment for lighting, appliances, heating and cooling systems, fireplaces, and other uses such as industrial processes in addition to being consumed by alternative fuel vehicles. The proposed project would not use natural gas; therefore, only electricity is described herein. Most of California's electricity is generated in state with approximately 26 percent of energy imported from out of state in 2023 (California Energy Commission [CEC] 2023). In addition, approximately 58 percent of California's electricity supply in 2023 came from non-greenhouse gas or renewable energy sources, such as wind, solar photovoltaic, geothermal, and biomass (CEC 2023). In 2018, Senate Bill (SB) 100 accelerated the state's Renewable Portfolio Standards Program, codified in the Public Utilities Act, by requiring electricity providers to increase procurement from eligible renewable energy and zero-carbon resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045. Electricity service would be provided to the proposed project by Pacific Gas and Electric Company (PG&E). Table 5 summarizes the electricity consumption for Alameda County and PG&E, as compared to statewide consumption.

Table 5 2022 Electricity Consumption

Energy Type	Alameda County	PG&E	California	County Proportion of PG&E Consumption	County Proportion of Statewide Consumption[1]
Electricity (GWh)	10,395	77,887	287,826	13%	3.6%

GWh = gigawatt-hours

[1] For reference, the population of Alameda County (1,641,869 persons) is approximately 4.2 percent of the population of California (39,128,162 persons) (Department of Finance 2024a).

Source: CEC 2022

Petroleum fuels are primarily consumed by on-road and off-road equipment in addition to some industrial processes, with California being one of the top petroleum-producing states in the nation (CEC 2024a). Gasoline, which is used by light-duty cars, pickup trucks, and sport utility vehicles, is the most used transportation fuel in California with 13.6 billion gallons sold in 2023 (CEC 2024b). Diesel, which is used primarily by heavy duty-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, and heavy-duty construction and military vehicles, is the second most used fuel in California with 2.98 billion gallons sold in 2023 (CEC 2024b). Table 6 summarizes the petroleum fuel consumption for Alameda County as compared to statewide consumption.

Table 6 2023 Annual Gasoline and Diesel Consumption

Fuel Type	Alameda County (Millions of Gallons)	California (Millions of Gallons)	Proportion of Statewide Consumption[1]
Gasoline	468	13,576	3.4%
Diesel	55	2,316	2.4%

[1] For reference, the population of Alameda County (1,641,869 persons) is approximately 4.2 percent of the population of California (39,128,162 persons) (Department of Finance 2024a).

Source: CEC 2024b

Energy consumption is directly related to environmental quality in that the consumption of nonrenewable energy resources releases criteria air pollutant and GHG emissions into the atmosphere. The environmental impacts of air pollutant and GHG emissions associated with the proposed project's energy consumption are discussed in detail in Environmental Checklist Section 3, *Air Quality*, and Environmental Checklist Section 8, *Greenhouse Gas Emissions*, respectively.

Regulatory Setting

2017 Bay Area Clean Air Plan

The Bay Area 2017 Clean Air Plan (the 2017 Plan) provides a plan to improve Bay Area air quality and protect public health as well as the climate. The legal impetus for the 2017 Plan is to update the most recent ozone plan - the 2010 Clean Air Plan - to comply with state air quality planning requirements as codified in the California Health & Safety Code. The goals and visions outlined in the 2017 Plan provide a focus on creating energy efficiency and adopting a low-carbon lifestyle through increased use of renewable energy.

Impact Analysis

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Project-related energy consumption would include energy consumed during project construction (such as fuel consumed by construction vehicles and equipment), and operational energy use related to increased wastewater disposal at the Livermore Water Reclamation Plant. While the proposed project would result in a modest increase in wastewater flows requiring treatment, it would not fundamentally alter the wastewater plant's operations or require facility expansion. No buildings would be constructed, and the proposed project would not result in the potential for unanticipated population growth in the vicinity. The proposed project would require the use of gasoline and diesel fuel for project construction. The anticipated use of these resources is detailed in the following subsections. Construction details and CalEEMod outputs for the air pollutant and GHG emissions modeling were used to estimate energy consumption associated with the proposed project (Appendix D).

Construction Impacts

During project construction, energy would be consumed in the form of petroleum-based fuels used to power and operate heavy-duty equipment and machinery, off-road construction vehicles on the project site, construction worker travel to and from the project site, and vehicles used to deliver materials. The proposed project would require site preparation, excavation, installation of piping, backfill, patch paving, final paving, and slurry sealing. As shown in Table 7, project construction would require approximately 3,076 gallons of gasoline and 74,352 gallons of diesel fuel. These construction energy estimates are conservative because they assume that the construction equipment used in each phase of construction is operating every day of construction.

Table 7 Proposed Project Construction Energy Usage

Source	Fuel Consumption (Gallons)	
	Gasoline	Diesel
Construction Equipment & Hauling Trips	–	74,352
Construction Worker Vehicle Trips	3,076	–

See Appendix D for energy calculation sheets.

Energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of CCR Title 13 Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than 5 minutes and would minimize unnecessary fuel consumption. Construction equipment would be subject to the USEPA Construction Equipment Fuel Efficiency Standard, which would also minimize inefficient, wasteful, or unnecessary fuel consumption.

Pursuant to applicable regulatory requirements, the proposed project would comply with construction waste BMPs to divert a minimum of 50 percent of construction and demolition debris and 100 percent of concrete, asphalt, and land-clearing debris. These practices would result in efficient use of energy necessary to construct the proposed project. Furthermore, in the interest of cost-efficiency, construction contractors would not utilize fuel in a manner that is wasteful or unnecessary. Project construction would not result in significant impacts due to the wasteful, inefficient, or unnecessary consumption of energy, and impacts would be less than significant.

Operational Impacts

The proposed pipeline would convey wastewater to the existing Livermore Water Reclamation Plant, where it would be treated and discharged in accordance with the Livermore Water Reclamation Plant's permit to operate, which includes a maximum treatment capacity and requirements for the quality of treated discharge. An incremental increase in energy usage associated with wastewater treatment would be consistent with the permitted treatment capacity of the Livermore Water Reclamation Plant, and would not be wasteful or inefficient. For additional detail on treatment capacity and utility demand, please refer to Section 19, *Utilities and Service Systems*.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The 2017 Bay Area Clean Air Plan is the local plan adopted to ensure energy efficiency in the project area. As discussed under *criterion a,* the proposed project would result in energy consumption during construction, such as fuel consumed by vehicles and equipment as well as minor operational increase in energy use associated with wastewater treatment at the Livermore Water Reclamation Plant. Overall, project implementation would not alter energy efficiency or affect existing renewable energy resources. Therefore, the proposed project would not conflict with or obstruct the visions defined within the 2017 Bay Area Clean Air Plan.

NO IMPACT

This page intentionally left blank.

7 Geology and Soils

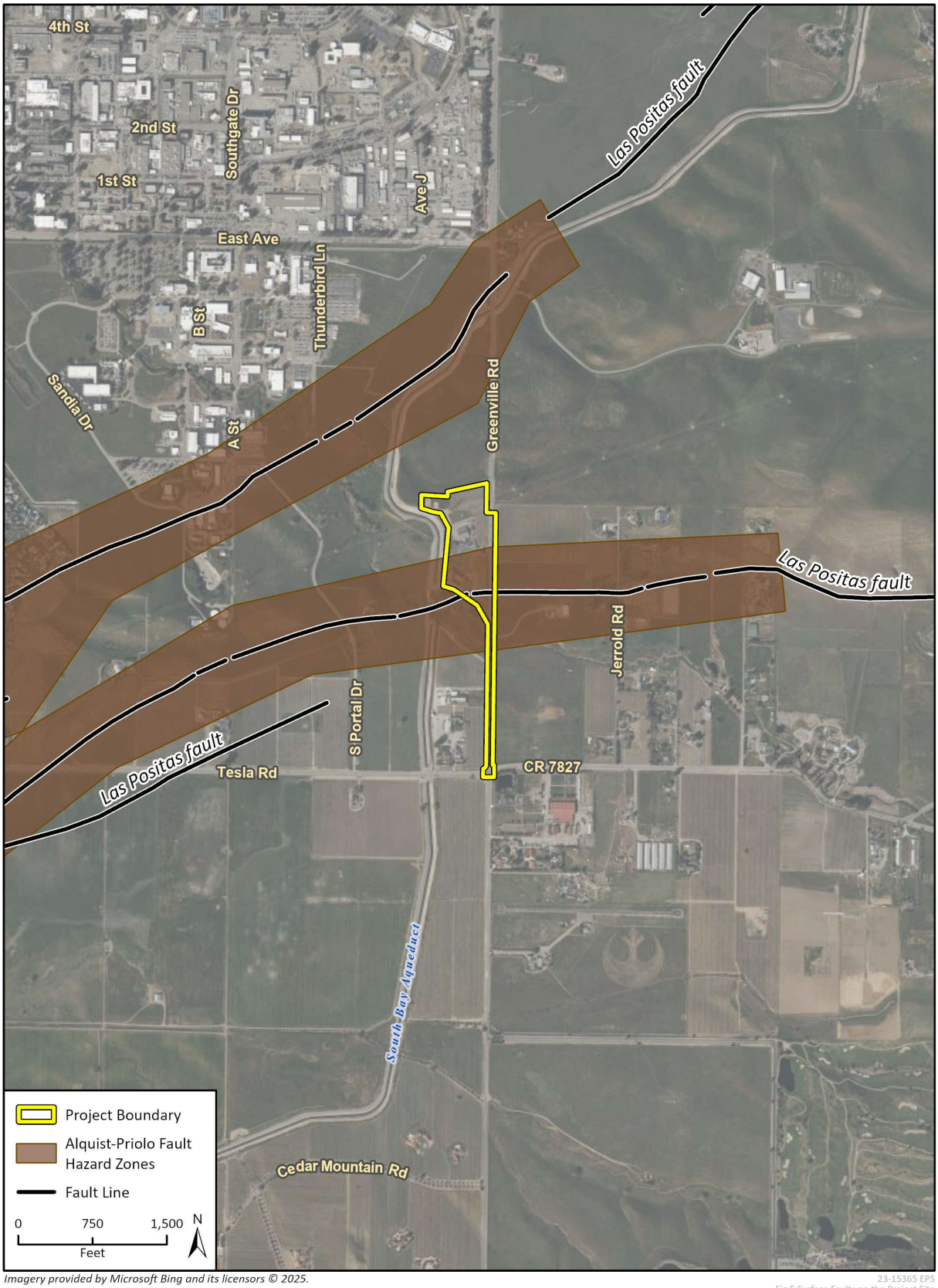
	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake 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?	☐	☐	■	☐
2. Strong seismic ground shaking?	☐	☐	■	☐
3. Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
4. 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 wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	■
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	■	☐	☐

Setting

The project site is located in one of the most seismically active areas in the country. There are three active faults within the project vicinity: the Greenville Fault, located approximately 2.2 miles to the northeast; the Las Positas Fault, which intersects a portion of the project site along Greenville Road; and the Calaveras Fault, located approximately 11.8 miles to the west (USGS 2024a). The portion of the Las Positas Fault bisecting the project site is shown in Figure 5 below. The northern portion of the project site, which includes the Martinelli Center, is located within a State-designated Alquist-Priolo Earthquake Fault Zone (DOC 2022b).

The project site is not located in or near any of the locations identified by the ECAP as areas with high landslide risk (County of Alameda 1993a; DOC 2022b).

Figure 5 Las Positas Fault and the Project Site



Imagery provided by Microsoft Bing and its licensors © 2025.
Additional data provided by USGS, 2024.

23-15365 EPS
Fig 5 Surface Faults on the Project Site

A portion of the project site along Greenville Road is located within a liquefaction zone (DOC 2022b). Lateral spreading is typically associated with liquefaction. Lateral spreading itself refers to horizontal ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water. Since the project site has been identified as being within a zone identified for very low liquefaction risk, the potential for lateral spreading to affect the alignment was determined to be low as no open spaces within a distance considered susceptible to lateral spreading exist.

The project site overlies soils that are not considered to be expansive (USDA Natural Resources Conservation Service 2025).

Paleontological Setting

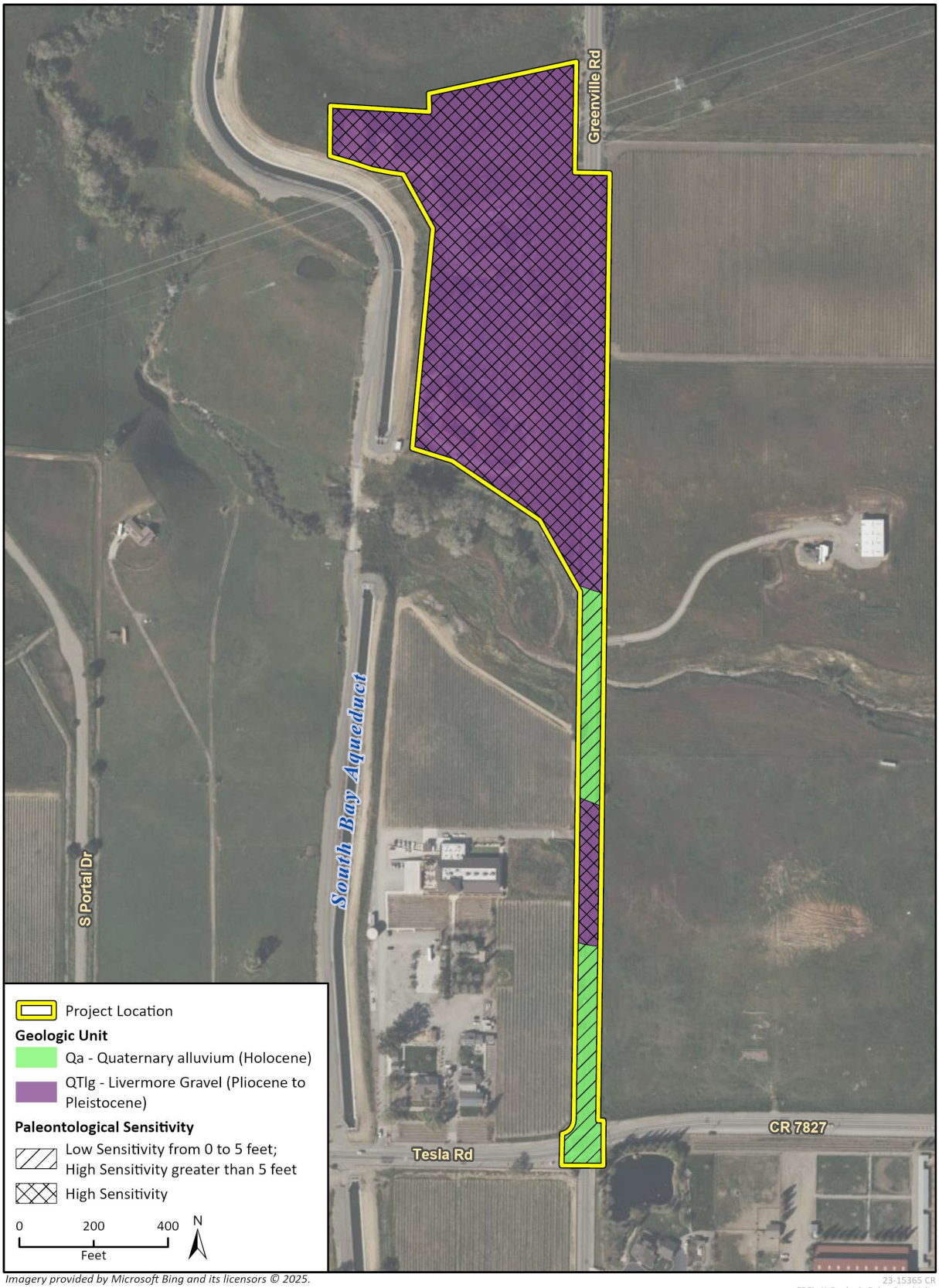
Paleontological resources, or fossils, are the evidence of once-living organisms preserved in the rock record. They include both the fossilized remains of ancient plants and animals and the traces thereof (e.g., trackways, imprints, burrows, etc.). Paleontological resources are not found in "soil" but are contained within the geologic deposits or bedrock that underlies the soil layer. Typically, fossils are greater than 5,000 years old (i.e., older than middle Holocene in age) and are typically preserved in sedimentary rocks. Although rare, fossils can also be preserved in volcanic rocks and low-grade metamorphic rocks under certain conditions (Society of Vertebrate Paleontology [SVP] 2010). 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. It is possible to evaluate the potential for geologic units to contain scientifically important paleontological resources, and therefore evaluate the potential for impacts to those resources and provide mitigation for paleontological resources if they are discovered during construction of a development project.

Rincon evaluated the paleontological sensitivity of the geologic units that underlie the project site to assess the proposed project's potential for significant impacts to scientifically important paleontological resources. The analysis was based on a review of existing information in the scientific literature regarding known fossils within geologic units mapped at the project site. According to the SVP (2010) classification system, geologic units can be assigned a high, low, undetermined, or no potential for containing scientifically significant nonrenewable paleontological resources. Following the literature review, a paleontological sensitivity classification was assigned to each geologic unit mapped within the project site. This criterion is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present. The potential for impacts to significant paleontological resources is based on the potential for ground disturbance to directly impact paleontologically sensitive geologic units.

The project site is in the Coast Ranges, one of the eleven geomorphic provinces in California (California Geological Survey 2002). The Coast Ranges extend along the majority of California's coast from the California-Oregon border to Point Arguello in Santa Barbara County in the south and consist of northwest-trending mountain ranges and valleys. The Coast Ranges are composed of Mesozoic and Cenozoic sedimentary, igneous, and metamorphic strata. Specifically, the project site is in the Livermore Valley, a small east-west-trending valley within the Diablo Range. The geology of the region was mapped by Dibblee and Minch (2006), who identified two geologic units, Quaternary alluvium and Livermore Gravel, underlying the project site (Figure 6).

Quaternary alluvium underlies the southern portion of the project site and a segment surrounding Arroyo Seco (Figure 6). Quaternary alluvium consists of unconsolidated or loosely consolidated gravel, sand, and clay and is Holocene in age (Dibblee and Minch 2006). Holocene-aged sediments are generally considered too young (i.e., less than 5,000 years old; SVP 2010) to preserve significant paleontological resources and are considered to have low paleontological sensitivity. However, Holocene sediments units may be underlain by geologic units that are old enough to preserve paleontological resources in the subsurface. Pleistocene-aged alluvial sediments are known to preserve paleontological resources in the Livermore Valley (Jefferson 2010; Paleobiology Database 2024; University of California Museum of Paleontology [UCMP] 2024) and thus are considered to have high paleontological sensitivity. The proximity of the areas mapped as Quaternary alluvium to areas mapped as the older Livermore Gravel,

Figure 6 Geologic Map and Paleontological Sensitivity of Project Site



Imagery provided by Microsoft Bing and its licensors © 2025.
Geologic data provided by "Geologic Map of the Altamont Quadrangle, Alameda County, California," Dibblee and Minch, 2006.

23-15365 CR
CRFig X Geologic Paleo Sensitivity

suggests that this transition to older sediments could be as shallow as 5 feet below the surface. Therefore, areas mapped as Quaternary alluvium are considered to have low sensitivity from the surface to 5 feet below the surface and high sensitivity greater than 5 feet below the surface.

The Livermore Gravel underlies the northern part of the project site and a small area near the center (Figure 6). The Livermore Gravel consists of weakly lithified, poorly sorted, weakly bedded gravel and sand and is Pliocene to Pleistocene in age (Dibblee and Minch 2006). This geologic unit has produced scientifically significant vertebrate fossils in Alameda County, including mammoth (*Mammuthus*), horse (*Equus*), ground sloth (Pilosa), and turtle (*Clemmys*) (Jefferson 2010; Paleobiology Database 2024; UCMP 2024). Given this fossil-producing history, the Livermore Gravel has high paleontological sensitivity.

Regulatory Setting

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 provides a mechanism for reducing losses from surface fault rupture on a statewide basis. The intent of the Act is to ensure public safety by prohibiting the siting of most structures for human occupancy across traces of active faults that constitute a potential hazard to structures from surface faulting or fault creep. Generally, siting of structures for human occupancy must be set back from the fault by approximately 50 feet. This Act groups faults into categories of active, potentially active, and inactive. Historic and Holocene age faults are considered active, Late Quaternary and Quaternary age faults are considered potentially active, and pre-Quaternary age faults are considered inactive.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 was enacted, in part, to address seismic hazards not included in the Alquist-Priolo Act, including strong ground shaking, landslides, and liquefaction. Under the Alquist-Priolo Act, the State Geologist is responsible for identifying and mapping seismic hazards. California Geological Survey (CGS) Special Publication 117, adopted in 1997 by the State Mining and Geology Board, constitutes guidelines for evaluating seismic hazards other than surface faulting and for recommending mitigation measures as required by PRC Section 2695(a). In accordance with the mapping criteria, the CGS seismic hazard zone maps identify areas with the potential for a ground shaking event that corresponds to 10 percent probability of exceedance in 50 years.

The purpose of the Seismic Hazards Mapping Act is to reduce the threat to public health and safety and to minimize the loss of life and property by identifying and mitigating seismic hazards. Cities, counties, and state agencies are directed to use seismic hazard zone maps developed by CGS in their land use planning and permitting processes. The Seismic Hazards Mapping Act requires site-specific geotechnical investigations prior to permitting most urban development projects in seismic hazard zones.

California Public Resources Code

Section 5097.5 of the California Public Resource Code (PRC) states “no person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface” any “vertebrate paleontological site” on public lands without the “permission of the public agency having jurisdiction over such lands.” Violation of this section is a misdemeanor.

As used in this PRC section, “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 PRC Section 5097.5 for their own activities, including construction and maintenance, as well as for permit actions (e.g., encroachment permits) undertaken by others.

National Pollutant Discharge Elimination System

Construction projects which disturb one or more acres of soil or are part of a larger common plan of development that disturbs one or more acres of soil must obtain coverage under the statewide National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Stormwater Associated with Construction Activity (Construction Stormwater General Permit Order 2022-0057-DWQ). To obtain coverage under the Construction General Permit, a project-specific Stormwater Pollution Prevention Plan (SWPPP) must be prepared. The SWPPP outlines best management practices (BMP) to reduce stormwater and non-stormwater pollutant discharges, including erosion control, minimizing contact between construction materials and precipitation, and strategies to prevent equipment leakage or spills.

Alameda County Code of Ordinances

Alameda County Code of Ordinances Chapter 15.36, Grading Erosion and Sediment Control, includes a grading ordinance that seeks to mitigate hazards associated with erosion and land stability. Construction requirements are provided in Section 15.36.170, and long-term post-grading stormwater runoff controls for erosion, sedimentation, or other discharges are stated in Section 15.36.600. Implementation of these plans would also help to ensure that the stormwater runoff from a construction site would meet applicable water quality standards. The Alameda County Code of Ordinances discusses soils and foundations in accordance with the 2022 California Building Code (CBC) to ensure that professionals have been retained to review the plans and specifications recommended in the soil investigation and provide soil site observation and provide field and final reports to ensure that all of the work associated with the project substantially conforms with the approved plans, specifications, and investigation.

Impact Analysis

a.1. Would the project 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?

a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

The project site, like much of California, may experience moderate to potentially severe ground shaking from earthquakes generated on known faults such as the Las Positas Fault, which crosses the project site. There is potential for fault rupture at the project site and construction workers would be present at the site and working on a mapped fault as shown in Figure 5; however, no new habitable structures or new land uses are proposed as a part of the proposed sewer extension or the Martinelli Center modifications. Additionally, the proposed project is required to be designed consistent with Policy 312 of the ECAP, which ensures that major transportation facilities and pipelines are designed, to the extent feasible, to accommodate fault displacement without major damage that could result in long-term disruption of service. Therefore, the proposed project would not cause direct or indirect adverse effects resulting from fault ruptures or seismic ground shaking (DOC 2018). The proposed project would result in less than significant impacts related to seismically-induced ground shaking from nearby faults.

LESS THAN SIGNIFICANT IMPACT

a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

A portion of the project site is located in a liquefaction hazard zone (DOC 2022b). However, as stated above in the discussion provided under *criteria a.1* and *a.2*, no new habitable structures or new land uses are proposed under the proposed sewer extension or the Martinelli Center modifications. Therefore, the proposed project would result in a less than significant impact.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

The risk of landslide throughout the project site is low (DOC 2022b). The nearest area with a landslide risk is located approximately 1.7 miles south of the project site (DOC 2022b). Furthermore, while portions of the alignment traverse areas with moderate to steep slopes, construction and operation of the project alignment would not result in significant landslide risks because the pipeline would be installed within the paved roadway ROW rather than in undeveloped or unstable areas. The Martinelli Center improvements would occur at existing structures, with the exception of the added parking lot area. However, the parking lot is situated on a flat to mild incline and lies outside of the landslide risk zone. Impacts related to landslides would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in substantial soil erosion or the loss of topsoil?

Construction activities would disturb soils within the project site, resulting in potential for erosion and loss of topsoil. As noted in Environmental Checklist Section 3, *Air Quality*, the proposed project would be required to comply with BAAD Regulation 6 regarding incorporation of measures to reduce fugitive dust, which would reduce the potential for construction-related wind erosion. BAAD Regulation 6 includes requirements for the application of water or stabilizing agents to prevent generation of dust plumes, pre-watering materials prior to the use of tarps to enclose haul trucks, stabilizing sloping surfaces using soil binders until vegetation or ground cover efficiently stabilize slopes, hydroseeding prior to rain, and washing mud and soils from equipment at the conclusion of trenching activities. Implementation of these measures pursuant to BAAD Regulation 6 would reduce the potential for project construction to result in substantial wind erosion or loss of topsoil.

In addition, the project alignment would be constructed within existing paved rights-of-way and the Martinelli Center modifications would occur on the existing structure, with limited soil exposure during construction.

Consistent with Alameda County Code Section 15.36.600, the project would implement erosion and sediment control as a primary consideration in grading plan design. Measures such as minimizing exposed erodible land during the rainy season, preserving natural features where feasible, installing permanent vegetation and erosion control structures promptly after grading, and maintaining post-construction runoff at or below pre-construction levels unless directed to appropriate drainage facilities would be implemented. The project would also implement BMPs for erosion and sediment control throughout the construction period, including spill prevention, stormwater management, and dust suppression.

Consistency with Alameda County Code requirements, including implementation of applicable BMPs related to wind and water erosion control, would reduce potential soil loss and erosion from the project. Impacts related to erosion and loss of topsoil would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project 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?

A portion of the project site is located within a liquefication hazard zone (DOC 2022b). However, the project alignment does not propose habitable structures or new land uses and would be constructed within existing paved rights-of-way. Similarly, the Martinelli Center modifications would not result in the construction of new structures and would occur at the existing structure, with the exception of the added parking lot area. The added parking lot area is situated on a flat to mild incline and lies outside of the landslide and liquefaction risk zones. Given the nature of the proposed project and existing conditions along the project site, the potential for lateral spreading and landslides would be low.

Consistent with the Alameda County Code of Ordinances Section 15.08.010, the proposed project would comply with CBC requirements and project construction would not cause the ground to become unstable or result in landslide, lateral spreading, or liquefaction because the roadway would be maintained by Alameda County Public Works Agency. This further minimizes the potential for impacts related to unstable soils. The proposed project would result in a less than significant impact.

LESS THAN SIGNIFICANT IMPACT

d. Would the project 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?

Soils within the project site have a low linear extensibility, which corresponds to a low shrink-swell potential and low expansiveness (USDA NRCS 2024). No expansive soils, which would require modifications to project design, are known to be present within the project site. Therefore, the proposed project would have a less than significant impact related to expansive soils.

LESS THAN SIGNIFICANT IMPACT

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No septic systems or alternative wastewater disposal systems are proposed as part of the proposed project and no impacts related to the ability of soils to support the use of septic tanks or alternative wastewater disposal systems would occur. Additionally, the proposed project would remove the existing septic system on the Martinelli Center parcel and connect the Center to sewer service.

NO IMPACT

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Significant impacts to paleontological resources include the destruction, damage, or loss of scientifically important paleontological resources or associated stratigraphic data (SVP 2010). Ground-disturbing activities (i.e., grading, excavating, trenching) in undisturbed sediments or geologic units with high paleontological sensitivity have the potential to disturb or damage paleontological resources. The project site is underlain by the Livermore Gravel, which has high paleontological sensitivity, and Quaternary alluvium, which has high sensitivity more than 5 feet below the surface (Figure 6).

Ground-disturbing activities for the proposed project would include excavations for the new sewer line within Greenville Road and at the Martinelli Center parcel, with excavations up to 18 feet in depth along Greenville Road, and up to 6 feet in depth within the Martinelli Center parcels. Regardless of depth, excavations could impact paleontological resources in areas mapped as Livermore Gravel. Excavations in areas mapped as Quaternary alluvium could also significantly impact paleontological resources if they exceed 5 feet in depth.

Implementation of Mitigation Measure GEO-1 would reduce those potential impacts to a less-than-significant level by ensuring that previously unrecorded paleontological resources, if discovered during grading or excavation, are recovered, identified, and curated.

Mitigation Measure

GEO-1 Paleontological Resources Monitoring and Mitigation

Prior to the commencement of project construction, a qualified paleontological monitor (i.e., a paleontologist who meets the Society of Vertebrate Paleontology [SVP; 2010] standards as a Paleontological Resource Monitor) shall be retained to conduct paleontological monitoring. Paleontological monitoring shall be overseen by an individual meeting SVP (2010) standards for a Qualified Professional Paleontologist.

Full-time monitoring shall be conducted for all ground-disturbing activities that impact previously undisturbed sediments greater than 5 feet below the surface in areas mapped as Quaternary alluvium or of any depth in areas mapped as Livermore Gravel.

If the Qualified Professional Paleontologist determines that full-time monitoring is no longer warranted, they may recommend reducing monitoring to periodic spot-checking or may recommend that monitoring cease entirely. Monitoring shall be reinstated if any new ground disturbances of previously undisturbed areas are required, and reduction or suspension shall be reconsidered by the Qualified Professional Paleontologist at that time.

If a paleontological resource is discovered, the monitor shall have the authority to temporarily divert construction equipment around the find until it is assessed for scientific significance and collected. Once salvaged, significant fossils shall be prepared to a curation-ready condition and curated in a scientific institution with a permanent paleontological collection (such as the UCMP). Curation fees are the responsibility of the project owner.

A final report shall be prepared describing the results of the paleontological monitoring efforts associated with the proposed project. The report shall include a summary of the field and laboratory methods, an overview of the project geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. The report shall be submitted to the County. If the monitoring efforts produced fossils, then a copy of the report shall also be submitted to the designated museum repository.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

This page intentionally left blank.

8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
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?	☐	☐	■	☐

Setting

Gases that trap heat in the atmosphere are known as GHGs. GHGs allow sunlight to enter the atmosphere but trap a portion of the outward-bound infrared radiation that warms the air. The process is similar to the effect greenhouses have in raising the internal temperature of the structure. Both natural processes and human activities emit GHGs. The accumulation of GHGs in the atmosphere regulates the Earth's temperature, but emissions from human activities (such as fossil fuel-based electricity production and the use of motor vehicles) have elevated the concentration of GHGs in the atmosphere. The gases widely seen as the principal contributors to human-induced climate change include carbon dioxide, methane, nitrous oxides, fluorinated gases such as hydrofluorocarbons and perfluorocarbons, and sulfur hexafluoride. Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere, and natural processes, such as oceanic evaporation, largely determine its atmospheric concentrations.

Regulatory Setting

State and Regional Regulations

California Global Warming Solutions Act of 2006 (Assembly Bill 32, Senate Bill 32, and Assembly Bill 1279) The "California Global Warming Solutions Act of 2006," (AB 32), outlines California's major legislative initiative for reducing GHG emissions. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHG emissions to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 target of 431 MMT of CO_2e, which was achieved in 2016. CARB approved the Scoping Plan on December 11, 2008, which included GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among others.

On September 8, 2016, the governor signed Senate Bill (SB) 32 into law, extending the California Global Warming Solutions Act of 2006 by requiring the State to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and legislation, such as SB 1383 and SB 100 (discussed below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies (CARB 2017).

AB 1279, "The California Climate Crisis Act," was passed on September 16, 2022, and declares the State will achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter. In addition, the bill states that the State will reduce GHG

emissions by 85 percent below 1990 levels no later than 2045. In response, CARB published a 2022 update to the Scoping Plan. The 2022 Scoping Plan lays out a path to achieve AB 1279 targets (CARB 2022b). The actions and outcomes in the 2022 Scoping Plan would achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

Senate Bill 100 (100 Percent Clean Energy Act) Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the State's Renewables Portfolio Standard Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

Senate Bill 375 (Sustainable Communities and Climate Protection Act) SB 375, signed in August 2008, enhances the State's ability to reach AB 32 goals by directing CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. In addition, SB 375 directs each of the State's 18 major Metropolitan Planning Organizations to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. SCAG was assigned targets of an 8 percent reduction in GHGs from transportation sources by 2020 and a 19 percent reduction in GHGs from transportation sources by 2035 (CARB 2022c). In the SCAG region, SB 375 also provides the option for the coordinated development of subregional plans by the subregional councils of governments and the county transportation commissions to meet SB 375 requirements.

California Code of Regulations Title 24 (California Building Code) Updated every three years through a rigorous stakeholder process, Title 24 of the California Code of Regulations requires California homes and businesses to meet strong energy efficiency and sustainability measures, thereby lowering their GHG emissions. Title 24 contains numerous subparts, including Part 1 (Administrative Code), Part 2 (Building Code), Part 3 (Electrical Code), Part 4 (Mechanical Code), Part 5 (Plumbing Code), Part 6 (Energy Code), Part 8 (Historical Building Code), Part 9 (Fire Code), Part 10 (Existing Building Code), Part 11 (Green Building Standards Code), Part 12 (Referenced Standards Code). The CBC is applicable to all development in California (Health and Safety Code Sections 17950 and 18938[b]. Part 6 and Part 11 set forth energy and other conservation standards which establish, among other requirements, rules for installation of solar photovoltaic and battery storage standards, solid waste diversion standards, water conservation requirements, and electric vehicle accommodation requirements. The most recent iteration of the CBC, the 2022 Title 24 standards, is applicable to all buildings for which an application for a building permit is submitted on or after January 1, 2023.

The regulations were developed with input from members of industry, as well as the public, with the goal of "[r]educing of wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (Public Resources Code Section 25402). These regulations are scrutinized and analyzed for technological and economic feasibility (Public Resources Code Section 25402[d]) and cost effectiveness (Public Resources Code Sections 25402[b][2] and [b][3]).

Impact Analysis

a. *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*

b. *Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Several plans have been adopted to reduce GHG emissions in the County of Alameda and at the State level, including CARB's 2022 Scoping Plan and BAAD's 2022 CEQA Guidelines. BAAD's 2022 CEQA Guidelines recommend using the approach endorsed by the California Supreme Court in Center for

Biological Diversity v. Department of Fish & Wildlife (2015) (62 Cal.4th 204), which evaluates a project based on its effect on California's efforts to meet the State's long-term climate goals. If a project contributes its "fair share" of what is required to achieve those long-term climate goals, a reviewing agency can determine that the impact would not be significant, as the proposed project would help address global climate change.

The analysis evaluates its "fair share" through part A of the BAAD guidance by ensuring that projects incorporate essential design elements, which aligns with the 2022 Scoping Plan's goal of carbon neutrality by 2045.

Part 1, Buildings, under part A in the BAAD guidance mandates that projects must avoid wasteful, inefficient, or unnecessary energy usage and must exclude natural gas appliances and plumbing. The proposed project would comply with the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation during construction, which imposes limits on idling and restricts the use of older vehicles; this would reduce fuel consumption and lead to the use of fuel-efficient vehicles on the construction site. Construction equipment would also be maintained to applicable standards, and construction activity and associated fuel consumption and energy use would be temporary and typical for construction sites. The proposed project would be consistent with BAAD criteria for buildings since the visitor center would be equipped with all-electric appliances and would not include natural gas appliances or plumbing. Electric appliances would produce fewer long-term GHG emissions than natural gas since electricity generation is increasingly powered by renewable energy sources. Additionally, the proposed project would install energy efficient appliances that would consume less energy; thereby reducing GHG emissions. Therefore, the proposed project would not result in wasteful or unnecessary energy consumption during construction and operation, or conflict with existing energy standards and regulations, and would be consistent with the BAAD building thresholds.

Part 2, Transportation, under Section A of the BAAD guidance mandates that projects must reduce VMT and comply with CALGreen Tier 2 electric vehicle infrastructure requirements. The proposed project would generate two mobile vehicle trips per month for maintenance and repair activities of the sewer pipeline. The proposed project is not applicable to the requirement of achieving a reduction in VMT as outlined in the California Climate Change Scoping Plan and Senate Bill 743, since it does not fall under the categories of residential, office, or retail projects. The proposed project would install electric vehicle infrastructure consistent with the latest CALGreen Tier 2 standards for nonresidential land uses; therefore, the proposed project would be consistent with BAAD guidance for nonresidential land uses, and the proposed project's GHG impacts would be less than significant.

Project-related GHG emissions are provided for informational purposes. Construction of the proposed project would generate temporary GHG emissions primarily from the operation of construction equipment as well as from vehicles transporting construction workers to and from the project site and heavy trucks to transport building materials. As shown in Table 8, construction of the proposed project would generate an estimated total of 123 MT of CO_2e. Amortized over a 30-year period, construction of the proposed project would generate an estimated 4 MT CO_2e per year.

Table 8 Estimated Construction Emissions of Greenhouse Gases

Construction	Project Emissions MT CO_2e
2026	113
2027	10
Amortized over 30 Years	4

MT of CO_2e = metric tons of carbon dioxide equivalent

Source: Appendix A CalEEMod worksheets

Operation of the proposed project would generate GHG emissions associated with mobile sources, area sources, refrigerant sources, energy and water usage, and wastewater and solid waste generation. Table 9 combines the estimated construction and operational GHG emissions associated with development of the proposed project. As shown therein, annual emissions from the proposed project would be approximately 33 MT of CO_2e per year.

Table 9 Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions (MT CO_2e)
Construction[1]	**4**
Operational	**29**
Mobile	<1
Area	<1
Energy	24
Water	3
Waste	2
Refrigerant	<1
Total	**33**

MT CO_2e = metric tons of carbon dioxide equivalent

[1] Amortized construction related GHG emissions over 30 years

Source: Appendix A CalEEMod worksheets.

LESS THAN SIGNIFICANT IMPACT

9 Hazards and Hazardous Materials



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
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 0.25 mile of an existing or proposed school?	☐	☐	☐	■
d. Be located on a site that is included on a list of hazardous material 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 in 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?	☐	☐	■	☐

Setting

Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop an updated list of hazardous material sites (Cortese List). The California Department of Toxic Substances Control (DTSC) and State Water Resources Control Board (SWRCB) are responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List (CalEPA 2025). The analysis for this section included a review of the following resources on November 8, 2024, to provide hazardous material release information:

- **USEPA**: Comprehensive Environmental Response, Compensation, and Liability Information System/Superfund Enterprise Management System (USEPA 2024)
- **SWRCB**: GeoTracker search for leaking underground storage tanks and other cleanup sites (SWRCB 2024)
- **DTSC**: EnviroStor search for hazardous facilities or known contamination sites (DTSC 2024b)

- **CalEPA**: List of solid waste disposal sites (CalEPA 2025)
- **CalEPA**: List of "active" Cease and Desist Orders and Cleanup Abatement Orders (CalEPA 2025)

Based on a review of these databases, it was determined that the project site is not included on existing lists of hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, the SWRCB has listed the following nearby facilities as Cleanup Program Sites or Leaking Underground Storage Tank (LUST) Cleanup Sites:

- 2617 South Vasco Road (Cleanup Program site), located immediately east of the project site, was listed for chromium and zinc contamination to an aquifer used for water supply. The case was closed in November 2015 (SWRCB 2024).
- Sandia National Lab (Cleanup Program site), located at 7011 East Avenue, approximately 0.8 miles northwest of the project site, was listed for diesel contamination to soil. The case was closed in February 2019 (SWRCB 2024).
- LLNL Subsite 511-D1U1 (LUST Cleanup site), located at 7000 East avenue approximately 0.7 mile northwest of the project site, was listed for diesel contamination to soil. The case was closed in June 1997 (SWRCB 2024).

No additional listed sites were identified within 0.25 mile of the project site.

Regulatory Setting

Alameda County Code of Ordinances

Alameda County Code Section 15.36.600 requires erosion and sediment control to be a primary consideration in grading plan design. Compliance with the ordinance requires measures such as minimizing exposed erodible land during the rainy season, preserving natural features where feasible, installing permanent vegetation and erosion control structures promptly after grading, and maintaining post-construction runoff at or below pre-construction levels unless directed to appropriate drainage facilities. The project would also be required to implement BMPs for erosion and sediment control throughout the construction period, including spill prevention, stormwater management, and dust suppression.

Department of Toxic Substances Control

Part of the DTSC involves implementing the CCR Title 22 regarding hazardous waste management, transfer, treatment, storage, identification, disposal, and site remediation. CCR Section 1532.1 requires testing, monitoring, containment, and disposal of lead-based materials, such that exposure levels do not exceed Division of Occupational Safety and Health standards.

Bay Area Air District

The BAAD is the public agency that regulates the stationary sources of air pollution in the nine counties of the San Francisco Bay Area. BAAD's Regulation 11, Rule 2 governs the proper handling and disposal of asbestos-containing materials for demolition, renovation, and manufacturing activities in the Bay Area.

Tri-Valley Local Hazard Mitigation Plan

The Disaster Mitigation Act, passed in 2000, shifted the emphasis on hazard mitigation from the federal level toward planning for disasters before they occur. The Disaster Mitigation Act requires state and local governments to develop hazard mitigation plans and to provide updates to such plans every five years, as a condition for federal disaster grant assistance. The Tri-Valley Local Hazard Mitigation Plan was most recently updated and adopted in 2024 and identifies resources, information, and strategies for reducing risk from natural hazards in the Tri-Valley planning area.

East County Area Plan (1993)

The ECAP contains goals and policies related to hazardous material and waste management. In the Land Use Element, Policy 154 requires the County to abide by the policies and Siting Criteria in the Alameda County Hazardous Waste Management Plan to ensure the responsible handling of hazardous waste in the County. In the Land Use and Environmental Health and Safety Element, Policies 154 and 302 requires responsible hazardous waste management and mandates buffer zones to separate new residential and sensitive uses from pollution sources.

Impact Analysis

a. *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

b. *Would the project 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?*

Project construction would temporarily increase the use and transport of hazardous materials in the project area through the operation of vehicles and equipment. Such substances include diesel fuel, oil, solvents, and other similar construction-related hazardous materials and could introduce the potential for an accidental spill or release to occur. These materials would be contained within receptacles specifically engineered for safe storage and would not be transported, stored, or used in quantities which would pose a significant hazard to the public or construction workers themselves. Hazardous materials used during project construction are required to be disposed of off site in accordance with applicable state and local laws and regulations, such as CCR Title 22 and ECAP Policy 154.

Project construction would require the excavation and transport of paving materials (e.g., asphalt, concrete, roadbed fill materials) and soils which could possibly be contaminated by vehicle-related pollution (e.g., oil, gasoline, diesel, and other automotive chemicals). Additionally, roadways constructed before the 1970s were known to use asbestos containing materials in asphalt and lead-based paint for roadway markings. Given the historical and ongoing agricultural uses in the surrounding area, there is also potential for agricultural-related chemicals to be present in the soils, including pesticides and herbicides. The existing asphalt pavement may contain asbestos and/or lead-based paint due to its age. All such paving, roadbed materials, and soils removed during construction would be transported and disposed of in accordance with applicable codes and regulations, including CCR Title 22, the Resource Conservation and Recovery Act, and the Comprehensive Environmental Response, Compensation, and Liability Act, to ensure no significant hazard to construction workers or the surrounding community would occur. With required adherence to the regulations mentioned, impacts would be less than significant.

Project operation of the sewer pipeline would involve the conveyance of wastewater and would not require transport, use, storage, or disposal of hazardous materials. Therefore, the proposed project would not create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials. Similarly, the proposed project would not 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. Project operation with regards to the Martinelli Center modifications would not result in a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials because the proposed land use primarily involves event operations and agrotourism. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

There are no schools located within 0.25 mile of the project site. The schools closest to the project site include Livermore Playschool, Vineyard Elementary School, and Arroyo Seco Elementary School, located approximately 2 miles northwest to the project site. No impact related to hazardous materials emissions in proximity to a school would occur.

NO IMPACT

d. Would the project be located on a site that is included on a list of hazardous material 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?

As described above under *Setting*, the proposed project would not occur on a site, or directly adjacent to a site, listed as currently containing hazardous materials pursuant to Government Code Section 65962.5. No impact would occur.

NO IMPACT

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?

The closest airport is the Livermore Municipal Airport, which is approximately 7 miles northwest of the project site. The project site is not located within a Safety Compatibility Zone as designated by the Livermore Executive Airport Land Use Compatibility Plan (County of Alameda 2012). Therefore, the proposed project would not subject people working along the alignment to safety hazards or excessive noise, and there would be no impact.

NO IMPACT

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The proposed project would require temporary lane closures along the alignment throughout construction. Consistent with Alameda County Code of Ordinances Chapter 12.08, particularly sections 12.08.340, 12.08.350, and 12.08.360, a County-approved traffic control plan would be implemented to ensure the protection of vehicular and pedestrian traffic. Emergency vehicle access to adjacent properties must be maintained at all times, and closures must conform to specific timing and signage requirements. Lane closures would occur along limited segments of the alignment, as approximately 150 linear feet of pipeline would be constructed each day. If public sidewalks are temporarily blocked, safe pedestrian detours would be established, consistent with County Code Section 12.08.050. Emergency routes would remain open with minimal delay resulting from project construction, and the proposed project would not interfere with an adopted emergency response plan or emergency evacuation plan.

Project operation would not change or disrupt the existing roadway and traffic patterns, and no streets would be closed or reconfigured once construction is complete. As such, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, including the 2Tri-Valley Local Hazard Mitigation Plan. The proposed project would have a less than significant impact.

LESS THAN SIGNIFICANT IMPACT

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

The project site is adjacent to existing agricultural and commercial uses. There are no wildland conditions on or adjacent to the project site, and the proposed project is not located in a designated Very High Fire Hazard Severity Zone according to California Department of Forestry and Fire Prevention (CAL FIRE). However, the project site is in an area designated as a Moderate Fire Hazard Severity Zone, meaning there is a potential for wildfire exposure, particularly during dry and windy conditions (FHSZ; CAL FIRE 2024). The project alignment would be constructed within paved rights-of-way and the Martinelli Center modifications would occur at the existing structure, with the addition of a parking lot. While the proposed project itself would not introduce new ignition sources or significantly alter wildfire risk, the increased use of the Martinelli Center could result in more people being present in the area, potentially increasing exposure in the event of a wildfire. However, given the site's location within a Moderate Fire Hazard Severity Zone, existing fire response infrastructure, and required adherence to fire safety regulations, the increased presence of people is not expected to result in a significant wildfire risk. Therefore, impacts would remain less than significant.

LESS THAN SIGNIFICANT IMPACT

This page intentionally left blank.

10 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water 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?	☐	☐	■	☐

Setting

Surface Water

The project site lies within the San Francisco Bay hydrologic region, which covers 4,500 square miles and includes Alameda County (DWR 2020). The alignment crosses two watersheds, Arroyo Mocho and Arroyo Las Positas, both dominated by agricultural land uses with some urban development near Livermore. Surface water in the region drains westward through local creeks and arroyos, eventually reaching the San Francisco Bay (USGS 2025). Stormwater management along the alignment is primarily handled by Zone 7 Flood Control and Water Conservation District, with city-owned storm drains in urbanized areas and roadside ditches in more rural segments. Major surface water features near the alignment include Arroyo Mocho, Arroyo Seco, and associated flood control channels (City of Livermore 2015).

Groundwater

The project site is within the Livermore Valley Groundwater Basin (Basin 2-10), managed by the Zone 7 Water Agency (DWR 2006). The basin, located approximately 40 miles east of San Francisco, spans the Livermore Valley and surrounding uplands. It supports municipal, domestic, and agricultural uses, supplying about 30 percent of the Zone 7 service area's total water supply (Groundwater Exchange 2025). Groundwater inflows include natural and artificial recharge, while outflows consist of municipal and agricultural pumping, evapotranspiration, and subsurface outflow. The basin's groundwater sustainability is monitored through an annual hydrologic inventory maintained by Zone 7 (Zone 7 Water Agency 2023).

Water Quality

Water quality in in the area is governed by the San Francisco Bay Regional Water Quality Control Board (RWQCB), which sets water quality standards through the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan; San Francisco Bay RWQCB 2019). The Basin Plan identifies beneficial uses for surface water and groundwater and establishes water quality objectives to attain those beneficial uses. The identified beneficial uses and water quality objectives to maintain or achieve those uses are together known as water quality standards. The San Francisco Bay RWQCB designates beneficial uses for some individual water bodies in the San Francisco Bay Basin. All other water bodies not designated individually are assigned the designated uses of municipal and domestic water supply and protection of recreation and aquatic life..

Flooding

The Federal Emergency Management Agency (FEMA) designates flood risk zones, including 100-year Special Flood Hazard Areas with a 1 percent annual flood chance and 500-year zones with a 0.2 percent annual flood chance. The project site is within FEMA Flood Zone X, indicating minimal flood hazard, and outside of Special Flood Hazard Areas. While low-lying areas near Arroyo Mocho and portions of Livermore fall within flood hazard or dam inundation zones, the project site does not intersect these areas. Tsunami hazards are not applicable to the alignment due to its inland location. The nearest inland body of water is Lake Del Valle, approximately 2 miles southwest of the project site; therefore, the project site is not subject to seiche.

Impact Analysis

a. *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Construction

Construction of the proposed sewer line would occur along existing paved roadways and would involve removal of a portion of the existing roadbed, grading and excavation, installation of the new sewer pipe, backfill of the trench, and repaving. Once an area is complete, the contractor would install final paving over the trench. If open-cut trenching is selected for installation beneath Arroyo Seco, the method would involve excavation across the dry streambed, placement of the pipeline at a depth of approximately 15 to 18 feet, and full restoration of the channel. This method would be implemented during the dry season and would require permits from CDFW, RWQCB, and potentially USACE. Additionally, as described in Section 4, *Biological Resources*, mitigation measures BIO-1(a–c) and BIO-2 are designed to address direct and indirect impacts to riparian habitat, special-status species, and water quality associated with this construction method.

The Martinelli Center modifications would occur at the existing structure and would also include an expansion of the parking lot area. Construction activities could result in temporary impacts to water quality due to runoff leaving active construction areas along the project site in the proximity of nearby water resources and storm drain infrastructure. Such nearby water resources include Arroyo Seco, which

bisects the proposed sewer alignment on Greenville Road. Stormwater infrastructure in the project area is limited. There are intermittent curbs and gutters along Greenville Road, with a single storm drain on either side of the road at the entrance to the Martinelli Center and curb and gutter at the corner of Tesla Road and Greenville Road.

Excavation activities during construction have the potential to impact water quality through erosion and debris carried in runoff. Project construction would involve heavy equipment that could also result in an increase in fuel, oil, and lubricants in stormwater runoff due to leaks or accidental releases. These contaminant sources could degrade the water quality of receiving water bodies (i.e., the Arroyo Seco, which bisects the project site on Greenville Road, and local flood control channels and creeks that collect stormwater from catch basins and storm drains), potentially resulting in a violation of water quality standards. To minimize these impacts, the proposed project would be required to maintain the following BMPs for site design and stormwater treatment, consistent with the Alameda County Code of Ordinances Section 15.36.440:

- Control of erosion;
- Control of stormwater run-on and runoff;
- Control of sediment;
- Good site management;
- Control of non-stormwater discharges from the site; and
- Active treatment of discharges.

Furthermore, consistent with Chapter 13.08 of the Alameda County Code of Ordinances (Stormwater Management and Discharge Control), the proposed project would be required to undertake all practicable measures to reduce the discharge of pollutants into stormwater. The contractor would also be required to provide filter materials at the nearest catch basins, such as those at the intersection of Greenville Road and Tesla Road, and on Greenville Road near the Martinelli Center entrance, to retain any debris and dirt flowing into the stormwater system, which would ultimately empty into local flood control channels and creeks such as the Arroyo Mocho, Arroyo Seco, and the San Francisco Bay.

In addition to compliance with mandatory Clean Water Act requirements (NPDES Construction Stormwater General Permit and MS4 General Permit), County Code requirements, and the San Francisco Bay RWQCB's post-construction requirements for stormwater management, implementation of the goals, policies, and actions outlined in the ECAP, such as Policy 306, would encourage the protection of surface and groundwater resources by preserving prime percolation areas, minimizing erosion and sedimentation through controlled land use practices, and restricting the development of potentially polluting activities in sensitive areas such as creekside, reservoir, and high groundwater table locations.

Operation

Impervious surfaces can cause stormwater runoff to carry a variety of pollutants, such oil, grease, metals, sediment, and pesticide residues from roadways into adjacent waterways via the storm drain system. After completion, the proposed project would maintain the same area of impervious surfaces along the alignment compared to existing conditions, as expansion of the existing pavement along Greenville Road would occur.

The proposed project would modify stormwater flow or introduce additional urban pollutants to the stormwater system through runoff at the new parking lot, which would introduce additional impervious surfaces at the Martinelli Center parcels. However, design of the parking lot would be required to adhere to ECAP Policy 280, which ensures that storm drainage facilities for new developments are designed to maintain peak stormwater runoff rates at or below pre-development levels, preventing increased downstream flooding and erosion. The project would also be subject to C.3 post-construction stormwater control requirements, which apply countywide to the construction of new impervious surfaces and re-

surfacing of existing asphalt or concrete. The parking lot and any associated re-paving at the project site as part of the proposed project would be subject to C.3 requirements.

Project operation would connect the Martinelli Center buildings to the municipal wastewater system, and the existing septic system would be removed. As a result, groundwater quality in the vicinity of the Martinelli Center would be improved due to reduced reliance on the septic system. Impacts to water quality would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Project construction would require minimal amounts of water for dust suppression, in order to comply with Bay Area Air Quality Management District Regulations regarding dust suppression during construction activities. Project construction water use would also comply with California Green Building Standards Code water use efficiency requirements (additional details provided in Environmental Checklist Section 3, *Air Quality*). Facilitation of the project alignment and the Martinelli Center modifications would be consistent with the ECAP and operation of the proposed project would not result in an unanticipated demand for groundwater as a result of adjacent development potential. Therefore, no substantial increase in demand on groundwater supplies would occur.

The proposed project would maintain the same area of impervious surfaces along the proposed sewer alignment as compared to existing conditions, as no new buildings would be constructed. Modifications to the Martinelli Center, particularly the construction of expanded paved areas for the parking lot, would result in an increase in impervious surfaces. The existing drainage system would not be modified by the proposed project, and stormwater would continue to runoff from the repaved roadway into the existing stormwater drainage system. This would be the case for the added parking lot area as well. Additionally, the proposed project would be required to the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit No. CAS612008, issued by Order No. R2-2022-0018 on November 19, 2015, which would require low impact development techniques such as permeable pavement, bioswales, infiltration basins, and retention basins to help offset the loss of natural infiltration. Stormwater runoff at the expanded parking area would be managed pursuant to ECAP Policy 280, ensuring peak runoff rates remain at or below pre-development levels to prevent downstream flooding and erosion. Measures such as detention basins, permeable paving, or bioswales may be used to control runoff and maintain pre-project groundwater infiltration rates, along with compliance with NPDES permit requirements for water quality protection. Although the increase in impervious surfaces due to the parking lot expansion would reduce groundwater infiltration, the proposed project would not significantly impact groundwater recharge. Impacts related to depletion of groundwater supplies and groundwater recharge would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c.(i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

c.(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

c.(iii) Would the project 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 that would 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?

c.(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

Construction activities would involve site preparation, excavation and grading, paving, and other earth-disturbing activities that could temporarily alter existing drainage patterns. However, compliance with the NPDES Construction General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit Order 2022-0057-DWQ) and Alameda County Code Section 15.36.600 would reduce the risk of short-term erosion and increased runoff resulting from drainage alterations during construction. Additionally, if the open-cut trenching method is selected for pipeline installation beneath the Arroyo Seco, construction would occur during the dry season when the stream is not flowing.

Although the proposed project would result in a net increase in impervious surfaces due to the construction of additional parking areas, it would maintain existing drainage patterns to the extent feasible upon completion. Project construction could, however, impact the Arroyo Seco because the pipeline would either be attached to the bridge over the drainage or installed below the drainage. If the pipeline is installed below the drainage, work would be conducted in compliance with applicable permitting requirements, including a Clean Water Act Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB), a Streambed Alteration Agreement under California Fish and Game Code Section 1602 from the California Department of Fish and Wildlife (CDFW), and a County-issued Watercourse Encroachment Permit under Alameda County Code Chapter 13.12, which would require restoration of the channel to pre-construction contours and conditions, thereby minimizing potential long-term effects on drainage.

In addition, the ECAP includes goals and policies, such as Policies 277, 279, 280, and 313, that are intended to ensure efficiency in the stormwater drainage system and regulate runoff from existing uses. Implementation of these goals and policies would reduce the potential for substantial erosion or siltation on- or off-site, reduce the rate and amount of surface runoff, reduce the potential to exceed the capacity of existing or planned stormwater drainage systems, and reduce the potential to redirect flood flows. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

The proposed project is located within FEMA Flood Zone X, which is an area of minimal flood hazard that has been determined to be outside of the 500-year floodplain and is protected by a levee from 100-year flooding. The nearest regulatory floodway to the proposed project is the Arroyo Seco, which bisects Greenville Road. A Zone AE floodplain associated with the Arroyo Seco is located on Greenville Road. The Zone AE floodplain identifies an area that is subject to inundation by a 100-year flood. The 500-year floodplain identifies an area with a 0.2-percent-annual-chance of flooding. However, the proposed project would ultimately result in the replacement of existing roadway surfaces after the sewer pipelines are installed, which would not introduce new pollutants to the roadway and would result in no change to the existing flood patterns within the project site. In addition, consistency with Chapter 15.36 of the Alameda County Codes and Ordinances would ensure that construction would not interfere with the natural flow of stormwater in a way that would cause flooding where it would not otherwise occur or aggravate an existing flooding condition.

The project site is located approximately 45 miles east of the Pacific Ocean and is not located within a tsunami inundation area (California Department of Conservation 2021). Therefore, the project site is not subject to flooding from tsunami. Similarly, seiches are a related hazard that can occur when a sudden displacement event or very strong winds happen in an enclosed or semi-enclosed body of water, such as a lake or reservoir. The closest body of water, Lake Del Valle, is located approximately 2 miles southwest of the project site. Therefore, inundation by seiche is not a potential hazard.

The project site falls outside of the inundation hazard areas for both the Patterson Dam and the Del Valle Dam. In addition, regular DWR inspections and required maintenance of the Patterson Dam and the Del Valle Dam substantially reduces the potential for dam failure. As a result, flooding due to dam failure is not a potential hazard.

Overall, the project site is not expected to experience inundation from a tsunami, seiche, or flooding. Additionally, implementation of the goals and policies in the Livermore General Plan, such as policies 134, 277, 278, and 279 which focus on improving flood control systems and management, would further reduce the possibility of flooding in the vicinity of the project site. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

San Francisco Bay RWQCB's Basin Plan identifies specific beneficial uses and water quality objectives for each of the surface waters and groundwater management zones described in the Basin Plan, including for Arroyo Seco, which is located in the vicinity of the project site (San Francisco Bay RWQCB 2010). The proposed project would require compliance with the NPDES Construction General Permit and would be consistent with Alameda County Code Section 15.36.600, which would reduce the risk of short-term erosion and increased runoff resulting during construction. The proposed project would also be subject to the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit No. CAS612008, which would require the contractor to eliminate or reduce non-stormwater discharges to waters of the nation, develop and implement a SWPPP for construction activities, and perform inspections of the stormwater pollution prevention measures and control practices to ensure conformance with the SWPPP. Compliance with such regulations would ensure that the project does not conflict with the Basin Plan, and beneficial uses would be protected for Arroyo Seco in the vicinity of the project site.

The Zone 7 Water Agency's Alternative GSP, which applies to the groundwater basin underlying the project site, outlines sustainable management goals and objectives, including the prevention of overdraft that would otherwise occur from too much pumping and the protection/enhancement of groundwater quality. Operation of the proposed project would not result in an unanticipated demand for groundwater as the project would not facilitate an increase in water demand beyond incrementally elevated use from

increased activity in the Martinelli Center kitchen. Small amounts of water would be required for project construction, such as water needed for dust suppression. This temporary, construction-related water demand would be similar to other construction projects in the area and would not result in a substantial decrease in available water supplies. In addition, the proposed project would facilitate connection to sewer service and abandonment of septic systems, which would result in an overall improvement in groundwater quality in the South Livermore Valley.

Overall, the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. In fact, the proposed project would result in improvements to groundwater quality aligned with the goals and objectives outlined in the Alternative GSP. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

This page intentionally left blank.

11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
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?	☐	☐	☐	■

Setting

A Land Use Consistency Analysis was prepared to assess whether the proposed project, including the South Livermore Sewer Expansion Project, aligns with applicable County land use plans, including the East County Area Plan (ECAP) and South Livermore Valley Area Plan (SLVAP). The analysis focuses on the consistency of the project with policies intended to guide development and protect environmental resources such as agricultural land, water quality, and open space.

As stated in Initial Study Section 5, *Land Use Designation*, and Initial Study Section 9, *Surrounding Land Uses and Setting*, land use within and adjacent to much of the project site is designated in the ECAP as LPA, with some areas of WM (County of Alameda 1993b). The Martinelli Center parcels and adjacent parcels are zoned Agriculture and Planned Development (Initial Study Section 6, *Zoning*, and Initial Study Section 9, *Surrounding Land Uses and Setting*). Generally, surrounding and adjacent parcels in the project vicinity consist of vineyards and wineries, and large parcel agriculture compliant with ECAP, South Livermore Valley Area Plan (SLVAP), and the County's Zoning Ordinance.

Regulatory Setting

East County Area Plan

According to the ECAP, the LPA land use designation is intended to preserve agricultural uses while allowing limited non-residential, residential, and visitor-serving uses compatible with agriculture, subject to specific standards for parcel size, building intensity, and development envelopes (County of Alameda 1993b).

South Livermore Valley Area Plan

The SLVAP provides policies and guidelines to support sustainable agricultural preservation, controlled growth, and environmental resource protection within the unincorporated South Livermore Valley region. The SLVAP ensures future developments align with groundwater management strategies, stormwater control measures, and land use policies aimed at maintaining the area's rural and agricultural character.

Impact Analysis

a. Would the project physically divide an established community?

Project implementation would not alter the existing pattern of land use in the project vicinity or introduce new land uses and would not divide connected neighborhoods or land uses from one another. Project construction would not physically or socially divide an established community or limit movement, travel, or other interaction between established land uses. No impact would occur.

NO IMPACT

b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No development beyond the current vision of the ECAP and SLVAP would occur as a result of the project. The ECAP requires community facilities and maintenance of those facilities to be provided to existing and future developments (Community Facilities Goal). Therefore, the proposed project would not conflict with existing land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating and environmental effect. Therefore, no impact would occur.

NO IMPACT

12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
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?	☐	☐	☐	■

Setting

The project site is not located in an identified mineral resource area or mineral resource zone (DOC 2015b).

Regulatory Setting

Pursuant to the Surface Mining and Reclamation Act of 1975, the State Mining and Geology Board requires all cities to incorporate into their general plans mapped mineral resources designations approved by the State Mining and Geology Board. Some mineral resources can be found within Alameda County. The ECAP indicates that the East County Area is underlain by significant sand and gravel deposits, particularly in the Livermore-Amador Valley and Arroyo Mocho, classified as Regionally Significant Construction Aggregate Resources by the State. Additional resources include clay in the Altamont Hills and limestone for cement production in the northern East County (County of Alameda 1993b).

Impact Analysis

a. *Would the project 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. *Would the project 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 existing mineral resource mining operations occur along the proposed sewer alignment or within the project site. The proposed project would not require the use of mineral resources valuable to the region and residents of the state, and no mining activity is planned to occur on the project site. The proposed project would not result in the loss of availability of mineral resources. No impact would occur.

NO IMPACT

This page intentionally left blank.

13 Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
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?	☐	☐	☐	■

Noise

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (Caltrans 2020).

Environmental Setting

Noise and Sensitive Receptors

Some land uses are more sensitive to ambient noise levels than other uses due to the amount of noise exposure and the types of activities involved. For example, residences, motels, hotels, schools, libraries, churches, nursing homes, auditoriums, museums, cultural facilities, parks, and outdoor recreation areas are more sensitive to noise than commercial and industrial land uses. The closest noise-sensitive receptor to the pipeline construction is a single-family residence on Greenville Road with a residential property line adjacent to the eastern project boundary and the residence located approximately 535 feet east of the eastern project boundary (measured from the eastern side of the residence to the western right-of-way boundary of Greenville Road). Furthermore, the eastern project boundary of the Martinelli Center modifications is approximately 50 feet from the eastern property line of the residence on Greenville Road and approximately 600 feet to the residence (measured from the eastern side of the residence to the western side of the Martinelli Center parcel).

The noise descriptors used for this study are the equivalent noise level (L_{eq}), and CNEL. L_{eq} is one of the most frequently used noise metrics; it considers both duration and sound power level. The L_{eq} is defined as the single steady-state A-weighted sound level equal to the average sound energy over a time period. When no time period is specified, a 1-hour period is assumed. The L_{max} is the highest noise level within the sampling period, and the L_{min} is the lowest noise level within the measuring period. Normal conversational levels are in the 60 to 65 dBA L_{eq} range; ambient noise levels greater than 65 dBA L_{eq} can interrupt conversations (Federal Transit Administration 2018).

Human Perception of Sound

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response. Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; dividing the energy in half would result in a 3 dB decrease (Caltrans 2013).

Human perception of noise has no simple correlation with sound energy: the perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not "sound twice as loud" as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease (i.e., twice the sound energy); that a change of 5 dBA is readily perceptible (8 times the sound energy); and that an increase (or decrease) of 10 dBA sounds twice (half) as loud (10.5 times the sound energy) (Caltrans 2013).

Sound Propagation and Shielding

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in the noise level as the distance from the source increases. The manner by which noise reduces with distance depends on factors such as the type of sources (e.g., point or line), the path the sound will travel, site conditions, and obstructions.

Sound levels are described as either a "sound power level" or a "sound pressure level," which are two distinct characteristics of sound. Both share the same unit of measurement, the dB. However, sound power (expressed as L_{pw}) is the energy converted into sound by the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receptors, such as an eardrum or microphone, which is the sound pressure level. Sound measurement instruments only measure sound pressure, and noise level limits are typically expressed as sound pressure levels.

Noise levels from a point source (e.g., construction, industrial machinery, air conditioning units) typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance. Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013). Noise levels may also be reduced by intervening structures; the amount of attenuation provided by this "shielding" depends on the size of the object and the frequencies of the noise levels. Natural terrain features, such as hills and dense woods, and man-made features, such as buildings and walls, can significantly alter noise levels. Generally, any large structure blocking the line of sight will provide at least a 5-dBA reduction in source noise levels at the receiver (FHWA 2011). Structures can substantially reduce exposure to noise as well. The FHWA's guidance indicates that modern building construction generally provides an exterior-to-interior noise level reduction of 10 dBA with open windows and an exterior-to-interior noise level reduction of 20 to 35 dBA with closed windows (FHWA 2011).

Descriptors

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important factors of project noise impact. Most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed. The noise descriptors used for this analysis are the equivalent noise level (L_{eq}), Day-Night Average Level (DNL; may also be symbolized as L_{dn}), and the community noise equivalent level (CNEL, may also be symbolized as L_{den}).

L_{eq} is one of the most frequently used noise metrics; it considers both duration and sound power level. The L_{eq} is defined as the single steady-state A-weighted sound level equal to the average sound energy over a time period. When no time period is specified, a 1-hour period is assumed. The L_{max} is the highest noise level within the sampling period, and the L_{min} is the lowest noise level within the measuring period. Normal conversational levels are in the 60 to 65-dBA L_{eq} range; ambient noise levels greater than 65 dBA L_{eq} can interrupt conversations (Federal Transit Administration [FTA] 2018).

Noise that occurs at night tends to be more disturbing than that occurring during the day. Community noise is usually measured using DNL, which is the 24-hour average noise level with a +10 dBA penalty for noise occurring during nighttime hours (10:00 p.m. to 7:00 a.m.). Community noise can also be measured using CNEL, which is the 24-hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. (Caltrans 2013).[2] The relationship between the peak-hour L_{eq} value and the DNL/CNEL depends on the distribution of noise during the day, evening, and night; however noise levels described by DNL and CNEL usually differ by 1 dBA or less. Quiet suburban areas typically have CNEL noise levels in the range of 40 to 50 CNEL, while areas near arterial streets are in the 50 to 60+ CNEL range (FTA 2018).

Groundborne Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent buildings or structures and vibration energy may propagate through the buildings or structures. Vibration may be felt, may manifest as an audible low-frequency rumbling noise (referred to as groundborne noise), and may cause windows, items on shelves, and pictures on walls to rattle. Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants at vibration-sensitive land uses and may cause structural damage.

Typically, ground-borne vibration generated by manmade activities attenuates rapidly as distance from the source of the vibration increases. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared (RMS) vibration velocity. The PPV and RMS velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used as it corresponds to the stresses that are experienced by buildings (Caltrans 2020).

Vibration limits used in this analysis to determine a potential impact to local land uses from construction activities are based on information contained in the FTA's *Transit Noise and Vibration Impact Assessment*. Maximum recommended vibration limits by the FTA are identified in Table 10.

Table 10 Criteria for Vibration Damage Potential

Building Category	PPV (in/sec)
I. Reinforced concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Nonengineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

in/sec = inches per second; PPV = peak particle velocity
Source: FTA 2018

Based on FTA recommendations, limiting vibration levels to below 0.2 in/sec PPV at residential structures and 0.3 in/sec PPV at industrial or commercial buildings would prevent architectural damage. These limits are applicable regardless of the frequency of the source.

[2] Because DNL and CNEL are typically used to assess human exposure to noise, the use of dBA is implicit. Therefore, when expressing noise levels in terms of DNL or CNEL, the dBA unit is not included.

Regulatory Setting

Federal

Occupational Health and Safety Administration

The federal government regulates occupational noise exposure common in the workplace through the Occupational Health and Safety Administration (OSHA) under the EPA. Noise limitations would apply to the operation of construction equipment and could also apply to operational equipment proposed as part of the project. Noise exposure of this type is dependent on work conditions and is addressed through a facility's Health and Safety Plan, as required under OSHA.

State

The state of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires each county and city to adopt a General Plan that includes a Noise Element prepared pursuant to guidelines adopted by the Governor's Office of Planning and Research. The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels. The California Environmental Quality Act requires all known environmental effects of a project be analyzed, including environmental noise impacts.

Local

Alameda County General Plan

The Alameda County General Plan, which was adopted in 1975 and amended in 1994 (Alameda County 1975), contains goals and objectives that are relevant to noise are primarily in the Unincorporated Area Policies of the Noise Element. The following goals and objectives are relevant to the project:

Goal #1. Alameda County should provide its residents and wildlife with an environment which is free from excessive noise pollution by preventing and suppressing undesirable levels, frequencies and time durations of noise.

> **Objective #3**. The County should examine existing County ordinances and regulations to determine the effectiveness of existing controls and where additional performance standards are needed to reduce noise problems.

Alameda County Code of Ordinances

Noise regulations and ordinances typically establish allowable noise levels for different land uses and define exempt noise activities. Chapter 6.60 of the Alameda County General Ordinance Code provides provision for restrictions and regulations for noise in the County of Alameda. Table 11 provides a summary of the exterior noise standards for different receiving land uses based on times of day. However, pursuant to Section 6.60.070, such restrictions do not apply to construction activities, provided that such activities occur between 7 AM and 7 PM on weekdays and between 8 AM and 5 PM on weekends.

Table 11 County of Alameda Noise and Land Use Compatibility Guidelines

		Noise Level Standards (dBA) Cumulative Number of Minutes in Any One Hour				
Receiving Land Use Category	**Time**	**30**	**15**	**5**	**1**	**0**
Residential uses, schools, hospitals, churches, and libraries	7AM – 10 PM	50	55	60	65	70
	10 PM – 7AM	45	50	55	60	65
Commercial uses	7AM – 10 PM	65	70	75	80	85
	10 PM – 7AM	60	65	70	75	80

Source: County of Alameda General Ordinance Code Section 6.60.040

Impact Analysis

a. Would the project result in 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?

Construction activity on the project site would result in temporary noise in the project vicinity, including nearby sensitive receptors. Project construction during the Martinelli Center phase would involve site preparation, grading, building construction, paving, and trenching. Project construction during the pipeline construction phase would be linear and would involve grubbing and land clearing, grading and excavation, utilities and subgrade installation and paving. Construction noise would typically be higher during the heavier periods of initial construction, such as site preparation and grading, and would be lower during the later construction phases. Typical construction projects have long-term noise averages which are quieter short-term noise events due to equipment moving from one point to another on the site, work breaks, and idle time. Because construction equipment move around a construction site during the workday, noise levels are calculated from the center of the project site to receptors. The nearest sensitive receptors to the pipeline construction is the residential property lines approximately 30 feet east of the center of pipeline construction on Greenville Road and 125 feet from the center of the site to the residential property line to the east during the Martinelli Center modifications. Additionally, this is a conservative analysis as it does not account for the approximate 535-foot setback of the residence from the beginning of the residential property line.

Based on information provided by the County, construction activity would occur between 7:00 a.m. and 7:00 p.m. Monday through Friday and 8:00 a.m. through 5:00 p.m. Saturday and Sunday. Table 12 summarizes the estimated construction noise levels for each construction phase from the center of the project site. Complete RCNM modeling worksheets are included in Appendix E.

Table 12 Estimated On-Site Construction Noise Levels

Construction Phase	RCNM Reference Noise Level[1] (dBA)	3834 Greenville Road Single-Family Residence to the East (dBA Leq[2])	Residence at Garre Vineyard to the West (dBA, Leq)
Martinelli Center Modifications (Distance)	50	125	1,760
Site Preparation	78	70	47
Grading	78	70	47
Building Construction	74	66	43
Paving	73	65	42
Trenching	77	69	46
Pipeline Construction (Distance)	50	30	365
Linear, Grubbing & Land Clearing	80	84	63
Linear, Grading & Excavation	78	82	61

Construction Phase	RCNM Reference Noise Level[1] (dBA)	3834 Greenville Road Single-Family Residence to the East (dBA Leq[2])	Residence at Garre Vineyard to the West (dBA, Leq)
Linear, Utilities & Subgrade	80	84	63
Linear, Paving	73	77	56

1 RCNM reference noise levels are noise levels generated during each construction phase measured from a point 50 feet from the location of the construction phase. These reference noise levels are then used to calculate noise levels from the construction phase at a distance greater than 50 feet from the construction phase.

2 Leq refers to the equivalent continuous sound level, which is the constant noise level that would result in the same total sound energy being produced over a given period.

See Appendix E for modeling outputs

As shown in Table 12, estimated on-site construction noise levels would be as high as 70 dBA L_{eq} during the Martinelli Center modifications and 84 dBA L_{eq} during pipeline construction phases. The Alameda County Code exempts construction noise between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and 8:00 a.m. through 5:00 p.m. Saturday and Sunday. Although construction activity noise would be perceptible at adjacent sensitive receptors, the additional noise would not be louder than typical construction as no major excavation or non-standard construction methods such as pile driving are proposed. Therefore, project construction would be within the range of typical construction noise. In addition, construction activities would temporary and noise associated with the proposed project would cease after that period. Therefore, a less than significant noise impact would result from construction activities.

Stationary Operational Noise

The proposed project consists of the extension of a sewer line along Greenville Road and modifications to and/or re-use of the Martinelli Center. The operation and maintenance would not include activities with the potential to generate significant noise or vibration during operation, such as manufacturing or heavy equipment. In addition, noise generated from the Martinelli Center would be similar to existing activities. Therefore, project operation would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project site in excess of applicable standards, and impacts would be less than significant.

Operational Traffic Noise

The level of vehicle trips associated with the proposed project would represent a negligible increase over existing traffic volumes and would result in a negligible noise increase. Operational traffic would not generate a substantial permanent increase in ambient noise levels in the vicinity of the proposed project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

The greatest anticipated source of vibration during pipeline construction activities would be from vibratory roller, which may be used at a distance of 235 feet from the nearest off-site commercial building to the west of the pipeline construction. A vibratory roller would create approximately 0.210 in/sec PPV at 25 feet (FTA 2018). Construction vibration at a distance of 235 feet would be approximately 0.007 in/sec PPV. Therefore, vibration from construction activity would be lower than the nonengineered timber and masonry buildings threshold of 0.2 in/sec PPV for residential buildings and lower than the engineered concrete and masonry (no plaster) threshold of 0.3 in/sec PPV for the industrial/commercial buildings to the west, and impacts would be less than significant from pipeline construction vibration.

The greatest anticipated source of vibration during Martinelli Center modifications would be from a vibratory roller, which may be used at a distance of 100 feet from the nearest on-site commercial building to the west of the parking lot construction. A vibratory roller would create approximately 0.210 in/sec PPV at 25 feet (FTA 2018). Construction vibration at a distance of 100 feet would be approximately 0.026 in/sec PPV. Additionally, the greatest anticipated source of vibration during the pipeline construction would be from a vibratory roller, which may be used at a distance of 365 feet from the nearest off-site residential building on the Garre Vineyard property to the west of the pipeline construction. Construction vibration at a distance of 365 feet would be approximately 0.004 in/sec PPV. Therefore, vibration from construction activity would be lower than the nonengineered timber and masonry buildings threshold of 0.2 in/sec PPV for residential buildings and lower than the engineered concrete and masonry (no plaster) threshold of 0.3 in/sec PPV for the industrial/commercial buildings to the west, and impacts would be less than significant from Martinelli Center modifications and pipeline construction vibration.

LESS THAN SIGNIFICANT IMPACT

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?*

According to Figure 3-2 of the Livermore Municipal Airport Land Use Compatibility Plan, the proposed project would not be located within the 55 CNEL, 60 CNEL, or 65 CNEL Noise Contour for the airport (County of Alameda 2012). There are no private airstrips in the project vicinity and the proposed project would not introduce a new noise sensitive land use. The proposed project would not expose people residing or working in the project area to excessive noise levels associated with airports or a private airstrip and there would be no impacts.

NO IMPACT

This page intentionally left blank.

14 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	■	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■

Setting

Alameda County has an estimated unincorporated population of 146,067 with 52,449 housing units (Department of Finance [DOF] 2024b). The average number of persons per household in unincorporated Alameda County is estimated at 2.82 (DOF 2024b). The Association of Bay Area Governments (ABAG) provides projections for households in Alameda County through the year 2050. ABAG projects there to be 847,000 households in Alameda County by 2050 (ABAG 2021).

Impact Analysis

a. Would the project 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)?

The proposed project would not involve the construction of new residences or businesses, nor would it extend existing roadways. The project would involve the construction of sanitary sewer infrastructure intended to support existing uses and serve existing development potential consistent with the vision of the ECAP. Additionally, the proposed project includes upgrades to the Martinelli Center, which would involve the expansion of paved areas for a new parking lot, further supporting the existing uses on the site. While the Martinelli Center upgrades and parking lot expansion could potentially increase site accessibility and activity, these changes are not expected to induce substantial unplanned population growth, as the proposed project does not introduce new uses inconsistent with the County's ECAP, SLVAP, or zoning, nor does it directly support new residences or businesses. The proposed project would not cause unanticipated growth in the County. Therefore, the proposed project would not induce substantial unplanned growth, directly or indirectly. Impacts related to population or housing would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The proposed sewer alignment is entirely within paved rights-of-way and the Martinelli Center parcels do not contain existing residences. Thus, the proposed project would not involve the demolition of existing residences and would not displace existing housing units or people. No impact would occur.

NO IMPACT

This page intentionally left blank.

15 Public Services

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
a.	**Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 public services:**				
1	Fire protection?	☐	☐	☐	■
2	Police protection?	☐	☐	☐	■
3	Schools?	☐	☐	☐	■
4	Parks?	☐	☐	☐	■
5	Other public facilities?	☐	☐	☐	■

Setting

The California Department of Forestry and Fire Protection (CAL FIRE) is responsible for fire prevention and suppression in the project vicinity (CAL FIRE 2024). The Alameda County Fire Department (ACFD) provides all-risk emergency services, such as fire suppression, advanced life support, and hazardous materials response, to the unincorporated areas of the County. The ACFD operates 29 fire stations and 35 companies in the County. In addition to fire and emergency response, ACFD also participates in development activities in the City by reviewing Planning Division projects and inspecting new construction and tenant improvements through the Fire Prevention Division (ACFD 2025a). The ACFD's goal is an overall response time of 5 minutes (ACFD 2025b).

The Alameda County Sheriff's Office (ACSO) provides police protection services to the unincorporated areas of the county. The nearest ACSO police department is approximately 10.5 miles northwest of the project site.

Livermore Valley Joint Unified School District serves students in the project area from transitional kindergarten through 12th grade at nine elementary campuses, two K-8 schools, three middle schools, two comprehensive high schools, and two alternative schools throughout Livermore Valley (Livermore Valley Joint Unified School District 2025).

The Livermore Public Library currently operates one main facility, the Civic Center Library, and three branch facilities in the City of Livermore: Rincon Library, Springtown Library, and Springtown Easy Access. The nearest library facility to the project site is the Civic Center Library, located at 1188 South Livermore Avenue 3 miles west of the project site.

Impact Analysis

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives?

The proposed project would not induce unanticipated growth in the city of Livermore or Alameda County because it would not result in population growth (refer to Environmental Checklist Section 14, *Population and Housing*). Thus, project implementation would not increase the demand for fire or police services beyond what is anticipated in the ECAP. The proposed project would not cause substantial adverse physical impacts associated with the provision of new or physically altered fire protection or police facilities. Similarly, the proposed project would not increase the number of students attending schools operated by the Livermore Valley Joint Unified School District and would not require the construction of new school facilities. The proposed project would not involve induce population growth; therefore, it would not result in impacts to Livermore library services or facilities, or other public facilities. No impact would occur.

NO IMPACT

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

Please refer to Environmental Checklist Section 16, *Recreation*, for an analysis of impacts related to parks and recreation resources. No impacts to parks or recreational facilities would occur.

NO IMPACT

16 Recreation



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
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?	☐	☐	☐	■

Setting

Parks and recreation services for the project site are primarily managed by the East Bay Regional Park District (EBRPD. EBRPD is responsible for providing public park operation and maintenance for local and regional parks and recreation services to Alameda County (EBRPD 2025). EBRPD is responsible for the management of approximately 126,809 acres of parks and open space; 1,330 miles of trails and 55 miles of shoreline (EBRPD 2025).

Parks and recreation facilities operated and maintained by EBRPD nearest the proposed project include Brushy Peak Regional Preserve, located approximately 5.2 miles northwest of the project site on Laughlin Road, and Del Valle Regional Park, located on Del Valle Road approximately 6.9 miles south of the project site.

Impact Analysis

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?

The shared use Arroyo Mocho Bike Trail on Tesla Road would remain open and usable during project construction because it is not located within the project site, and project implementation would not permanently alter the Arroyo Mocho Bike Trail.

Additionally, the proposed project would not induce population growth (refer to Environmental Checklist Section 14, *Population and Housing*). The proposed project would not increase the demand for recreational services. Furthermore, the project would not include the construction or expansion of additional public recreation facilities. As such, the proposed project would not result in impacts related to recreation.

NO IMPACT

This page intentionally left blank.

17 Transportation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
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 section 15064.3, subdivision (b)?	☐	☐	☐	■
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	☐	☐	☐	■
d. Result in inadequate emergency access?	☐	☐	■	☐

Setting

A Transportation Impact Study was prepared for the proposed project by W-Trans in February 2025 and is included as Appendix F. The following analysis is based primarily on the findings and conclusions of that study.

Existing Roadway Network

Regional access to the project site is provided by I-580 via Greenville Road and South Vasco Road to the north and by State Route 84/Isabel Avenue via East Stanley Boulevard and Concannon Boulevard to the west. The following descriptions are provided for roadways along the project site (City of Livermore 2015).

- **Tesla Road** is a two-lane road that starts at a connection with South Livermore Avenue within the City and stretches approximately 12 miles east, ending at a connection with Corral Hollow Road outside of the City. The roadway is identified as both a Major Street and a Special Rural Route west of Greenville Road and is identified as both a Major Street and an Intercounty Route east of Greenville Road. Tesla Road currently experiences cut-through traffic as a result of freeway congestion.
- **Greenville Road** begins at a connection with Northfront Road, adjacent to I-580. Portions of the roadway north of Tesla Road are identified as a Major Street and a Special Rural Route, and often experience cut-through traffic as a result of freeway congestion. Portions of the roadway south of Tesla Road are identified as a low-speed, low-capacity Local Street that provides access to existing vineyards and wineries.

Existing Bicycle Facilities

Caltrans classifies bicycle facilities in four ways. The Alameda County Transportation Commission has adopted a sub-set of classifications for each of the four classifications designated by Caltrans to harmonize the previously existing local classification system within Alameda County. The following descriptions are provided for bicycle facilities located within the City with classifications identified by both Caltrans and Alameda County (ACTC 2019).

- **Class I Shared Use Paths** are separated with exclusive rights-of-way for two-way bicycling, walking, and other non-motorized uses.
- **Class I Trails** are unpaved paths accessible by bicycle and pedestrians.

- **Class II Bicycle Lanes** are striped, preferential lanes on roadways for one-way bicycle travel.

The County currently maintains 400 miles of bikeways (ACTC 2022). Existing bicycle facilities located along the project site include Class 2a bicycle lanes on Tesla Road and Greenville Road. The Class II bicycle lane on Tesla Road stops at (does not continue east after) the intersection with Greenville Avenue but continues north onto Greenville Avenue to and beyond the project site.

Existing Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, bus shelters, etc. Currently, no sidewalks provide access for pedestrian travel in the vicinity of the project site. The *Alameda County Bicycle & Pedestrian Master Plan* (ACTC 2019) does not list any planned improvements along the project frontage.

Existing Public Transit

There are several transit services available nearby the project site, with the Livermore Transit Center serving as the major transfer point for local buses, Altamont Corridor Express trains, Amtrak motor coaches, and Greyhound buses. The Transit Center is located approximately 4.5-miles northwest of the project site on Railroad Avenue at First Street. The following transit services currently available within the City with routes and stops in the project vicinity are described below.

- **Livermore Amador Valley Transit Authority** operates the WHEELS Service, providing local public transit to the cities of Dublin, Livermore, Pleasanton, and to the adjacent unincorporated areas of Alameda County.
- **Altamont Commuter Express** provides passenger rail service from Stockton to San Jose through the Altamont Pass.

The Livermore Amador Valley Transit Authority offers fixed route services that operate seven days per week between the hours of 4:30 a.m. and 12:30 a.m. Route 20X and Route 30R are the only routes that stop at the bus stop nearest to the project site on South Vasco Road and East Avenue. This stop is approximately 2.2 miles northwest of the project site. The Altamont Commuter Express provides three morning and three evening trips to the connector stations in Livermore and Pleasanton. Livermore has two ACE stations: one located on Vasco Road just north of Patterson Pass Road approximately 3.5 miles northwest of the project site, and the other on Railroad Avenue at First Street adjacent to the Transit Center and approximately 4.5 miles northwest of the project site.

Regulatory Setting

SB 743 and Vehicle Miles Traveled

SB 743 was signed into law by Governor Brown in 2013 and tasked the State Office of Planning and Research with establishing new criteria and metrics for identifying and mitigating transportation impacts under CEQA. In January 2018, the Office of Planning and Research transmitted its proposed CEQA Guidelines implementing SB 743 to the California Natural Resources Agency for adoption, and in January 2019 the Natural Resources Agency finalized updates to the CEQA Guidelines, which incorporated SB 743 modifications that are now in effect (Caltrans 2020). SB 743 changed the way that public agencies evaluate the transportation impacts of projects, recognizing that roadway congestion, while an inconvenience to drivers, is not itself an environmental impact. In addition to new exemptions for projects consistent with specific plans, the CEQA Guidelines replaced congestion-based metrics, such as auto delay and level of service, with vehicle miles traveled as the basis for determining significant impacts, unless the Guidelines provide specific exceptions.

Alameda County Countywide Transportation Plan

A Countywide Transportation Plan was adopted by the Alameda County Transportation Commission in November 2020, which details a 30-year transportation vision and guides the decision-making of the Alameda County Transportation Commission. The Countywide Transportation Plan serves to improve the transportation system within Alameda County to promote connectivity, sustainability, transit operations, public health, and economic opportunities (County of Alameda 2020).

East County Area Plan

The County's Transportation Element contains goals, objectives, and policies focused on regulating and developing transportation systems in the County, such as Policy 178 which encourages the County to cooperate with cities and regional agencies to design transportation facilities and programs to accommodate ECAP land uses.

Alameda County Bicycle and Pedestrian Master Plan

The 2019 Alameda County Bicycle and Pedestrian Master Plan for the Unincorporated Areas (BPMP) provides a comprehensive framework to implement bicycle and pedestrian network improvements throughout the unincorporated communities of Alameda County. The BPMP aims to enhance mobility, connectivity, public safety, and recreational opportunities while promoting walking and bicycling as viable modes of transportation. The Plan supports transportation options that reduce environmental impacts, encourage physical activity, and improve the overall quality of life for residents in both the densely populated West County and rural East County. The 2019 BPMP builds upon the vision and projects of the 2012 BPMP, aligns with regional and local policies, and includes updated goals, policies, and prioritized recommendations to create a safe and connected active transportation network tailored to the unique needs of each area. (ACTC 2019).

Impact Analysis

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Project construction would require one lane of public roadway to be closed at any given time. The City would post signage along the alignment and on roadways leading up to the alignment before and during construction to give advance warning of road closures and detours. Access to the nearest transit stop (the Livermore Amador Valley Transit Authority bus stop at East Avenue and Vasco Road) would be maintained during project construction. Project implementation would not alter roadways or transit stops, increase commercial or residential development, generate growth, or cause an increase in traffic in the vicinity. Therefore, the proposed project would not impact the overall use of the roadways along the project site and would not conflict with the goals, objectives, or policies addressing the circulation system in the Alameda Countywide Transportation Plan, East County Area Plan, and Alameda County Bicycle and Pedestrian Master Plan.

An existing Class II bicycle lane runs in both directions along the project site on Tesla Road and Greenville Road. Project construction would require closure of one side of the Class II bicycle lane on Greenville Road and Tesla Road at a time. Detour signs would be placed at intersections to facilitate the safe crossing of bicycle lane users when portions of the lane are closed. Additionally, bicycle lane users could be redirected to use the unaffected parts of the bike lane on South Vasco Road as needed during project construction. Project operation would not result in permanent closures or long-term impacts to the Class II bicycle lane. Therefore, the proposed project would not conflict with the goals, objectives, or policies addressing bicycle and pedestrian facilities in the ECAP or the County's Bicycle and Pedestrian Master Plan.

Additionally, the W-Trans Transportation Impact Study (Appendix F) determined that the proposed project does not conflict with transit policies because pedestrian access within the site is designed to meet ADA and County standards; existing and planned bicycle facilities in the area are deemed adequate; and, although the proposed project is not well-served by transit, it does not rely on transit for access.

Overall, the proposed project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

CEQA Guidelines Section 15064.3(b) describes criteria for analyzing transportation impacts using vehicle miles traveled (VMT) as the primary metric. The proposed project would not change existing roadways or increase commercial or residential development in the area. However, future modifications to the Martinelli Center, such as the continuation of event center operations and the addition of a wine country visitor hub could incrementally increase vehicle trips during peak use periods.

The W-Trans Transportation Impact Study determined that the proposed project qualifies as a "small project" generating fewer than 110 new daily vehicle trips on an annual average basis. ACTC guidance and OPR's Technical Advisory indicate that projects under this threshold do not have significant VMT impacts. As such, the proposed project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) and no impacts would occur.

NO IMPACT

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

The project alignment would be constructed within existing roadways and the Martinelli Center improvements would occur on the existing structure. Thus, the proposed project would not alter or affect the existing street and intersection networks in the vicinity, nor increase hazards due to a new geometric design feature. The proposed project would also not introduce incompatible uses, including vehicles or equipment, to the alignment or the surrounding area. For these reasons, the proposed project would have no impact in this regard.

NO IMPACT

d. Would the project result in inadequate emergency access?

Project construction would require one lane of public roadways to be temporarily closed at any given time. Consistent with Alameda County Code Section 12.08.340, the protection of vehicular traffic, including emergency vehicles, during all phases of construction would be provided. Traffic control measures, such as signage, flaggers, and barricades, would be implemented consistent with standards established by the Director of Public Works. These measures would regulate construction staging, worker parking, and potential traffic detours. Signage would be posted along the alignment and on roadways leading up to the it before and during construction to give advance warning of road closures and detours. Additionally, lane closures during project construction would only occur along limited segments of the alignment, as approximately 150 linear feet of pipeline would be constructed each day.

Additionally, the W-Trans Transportation Impact Study determined that emergency vehicles would be able to access the site from the public street and all roadway users must yield to emergency vehicles when using their lights and sirens. As a result, the proposed project would not result in inadequate emergency access and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or 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. 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)?	☐	☐	☐	■
b. 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.	☐	☐	☐	■

Regulatory Setting

AB 52 was enacted in 2015 and expanded CEQA by defining a new resource category: "tribal cultural resources." AB 52 states that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." (PRC Section 21084.2). It further states the lead agency shall establish measures to avoid impacts altering the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3). PRC Sections 21074(a)(1)(A-B) define tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and are:

1. Listed or eligible for listing in the CRHR or in a local register of historical resources as defined in PRC Section 5020.1(k), or
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c). In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified or adopted. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those having requested notice of projects proposed in the jurisdiction of the lead agency.

On April 2 and April 3, 2025, the County distributed AB 52 consultation letters for the proposed project, including project information, map, and contact information, to ten Native American Tribes (see Appendix G). The Native American contacts provided with AB 52 consultation letters include the following list of recipients:

- Amah Mutsun Tribal Band
- Amah Mutsun Tribal Band of Mission San Juan Bautista

- Confederated Villages of Lisjan Nation
- Costanoan Rumsen Carmel Tribe
- Indian Canyon Mutsun Band of Costanoan
- Muwekma Ohlone Tribe of the SF Bay Area
- Northern Valley Yokuts/Ohlone Tribe
- The Ohlone Indian Tribe
- Wilton Rancheria
- Wuksachi Indian Tribe/Eshom Valley Band

Under AB 52, Native American tribes have 30 days to respond and request further project information and formal consultation. Therefore, the consultation request period for all tribes closed on July 1, 2025.

The County received responses from 6 tribes. Tribal responses and consultation results are summarized below.

- Wilton Rancheria – the Wilton Rancheria department of cultural preservation responded via email on April 1,2025 stating that the Tribe has no comments regarding the project. Tribal consultation was not requested.
- Northern Valley Yokuts/Ohlone Tribe – Katherine Perez, President, Nototomne Cultural Preservation of the Northern Valley Yokut, submitted a consultation request via email on April 2, 2025, and requested that a copy of the cultural resources assessment for the project be provided prior to the consultation meeting. The county sent the cultural resources study to the tribal representative for review on April 8, 2025. A consultation meeting was set for May 1, 2025 and the tribal representative subsequently asked to reschedule; no response from the tribal representative has been received to date about rescheduling the meeting.
- Costanoan Rumsen Carmel Tribe – Samuel Rodriguiz, Cultural Resources Officer, responded on April 1, 2025 stating that the tribe would like to set up a meeting once they have reviewed the cultural resources report. No further responses were received from the tribal representative to schedule a consultation meeting.
- Muwekma Ohlone Tribe of the SF Bay Area – Alan Leventhal, Muwekma Ohlone Tribal Archaeologist and Ethnohistorian, submitted a consultation request via email on April 2, 2025. On May 15,2025 the County held a consultation meeting with Alan Leventhal, Muwekma Ohlone Tribal Archaeologist and Ethnohistorian, and Muwekma Ohlone Tribal Council members Richard Massiatt and archaeologist Marni McManus. The tribe indicated that the proposed project is within the tribe's ancestral homeland, and requested Native American monitoring of subsurface excavations during the construction.
- Confederated Villages of Lisjan Nation – Lucy Gill, Cultural Resource Manager II, submitted a consultation request via email on April 9, 2025, and requested a copy of the cultural resources assessment for the project and other information on the proposed ground disturbance associated with the project. On May 29, 2025, the County held a consultation meeting with Confederated Villages of Lisjan Nation chairperson Corrina Gould and Cultural Resources Manager II Lucy Gill. The tribe requested information on whether the sewer pipeline would go underground or tie to the bridge. At this time the configuration of the sewer pipeline is unknown and the design would be a two-phase effort; the County concluded that once the final design is known they will update the tribal representative. The tribe requested to be informed once the sewer pipe design is final.

Impact Analysis

a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is 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)?*

b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 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 Public Resources Code Section 5024.1?*

A search of the NAHC Sacred Lands File was returned with negative results, indicating there are no known tribal cultural resources in the project area. The County conducted AB 52 consultation with Muwekma Ohlone Tribe of the SF Bay Area and Confederated Villages of Lisjan Nation. No tribal cultural resources as defined in PRC Section 21074(a) that are listed or eligible for listing in the CRHR, in a local register of historical resources as defined in PRC Section 5020.1(k), or determined significant by the County were identified as a result of consultation. However, The Muwekma Ohlone Tribe of the SF Bay Area indicated that the proposed project is within the tribe's ancestral homeland, and requested Native American monitoring of subsurface excavations during the construction. However, no Tribal Cultural Resources or specific areas of concern within or immediately adjacent to the project site were identified by the Muwekma Ohlone during the consultation related to the proposed project. Therefore, the tribe's request for monitoring was not granted.

Based on the information presented above, it is assumed no tribal cultural resources are present on the project alignment. Therefore, the proposed project would not result in a substantial adverse change to the significance of a historical resource or tribal cultural resources and the proposed project would have no impact.

NO IMPACT

This page intentionally left blank.

19 Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
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?	☐	☐	■	☐

Setting

Water Supply

The project area is served by Livermore Municipal Water, which provides water to approximately 28,000 residential and commercial customers. Livermore Municipal Water sources drinking water from Sierra Nevada snowmelt, the Del Valle Reservoir, and the local groundwater basin (City of Livermore 2025). Livermore Municipal Water is projected to have a supply of 27,111 million gallons in 2045 compared to a demand of 2,263 million gallons in 2045, as shown in Table 13 and Table 14.

Table 13 Livermore Municipal Water Normal Year Water Supplies (Million Gallons)

Water Supplies	2025	2030	2035	2040	2045
SWP Table A	15,315	14,989	14,663	14,175	14,175
Yuba Accord	0	0	0	0	0
Turnback Pool	0	0	0	0	0
SWP Carryover	3,259	3,259	3,259	3,259	3,259
Arroyo Valle	1,792	1,792	1,792	1,792	1,792
Marin Basin	2,998	2,998	2,998	2,998	2,998
Semitropic	0	0	0	0	0

Water Supplies	2025	2030	2035	2040	2045
Cawelo	0	0	0	0	0
BARDP/Potable Reuse	0	1,692	1,692	1,692	1,692
Sites Reservoir Project	0	3,259	3,259	3,259	3,259
Transfers	1,629	1,629	0	0	0
Chain of Lakes	0	0	0	0	0
Supply Total	**24,993**	**29,555**	**27,600**	**27,111**	**27,111**

Source: City of Livermore 2021: Table 4-6

Table 14 Livermore Municipal Water Projected Demands for Potable and Raw Water (Million Gallons)

Use Type	2025	2030	2035	2040	2045
Single Family	942	954	962	6,488	6,545
Multi-Family	170	216	266	814	858
Commercial	755	747	739	1,120	1,100
Institutional/Gov't	23	24	25	25	25
Industrial	0	0	0	0	0
Other Potable	23	24	25	25	25
Other Non-Potable	60	60	60	60	60
Losses[1]	149	153	157	161	161
Demand Total	**2,100**	**2,155**	**2,209**	**2,263**	**2,263**

[1]Real and apparent losses.

Source: City of Livermore 2021: Table 2-4

Wastewater/Stormwater

In the unincorporated South Livermore area, wastewater collection is primarily managed through individual septic systems, which are regulated by the Alameda County Department of Environmental Health to ensure compliance with water quality standards. These systems present environmental limitations, including risks of groundwater contamination, and restrict future growth due to water quality constraints. The City of Livermore's South Livermore Sewer Expansion Project and the proposed project are intended to address these issues by extending municipal sanitary sewer service into unincorporated Alameda County in the South Livermore area. The Livermore Water Reclamation Plant (LWRP) has the capacity to treat up to 8.5 million gallons of wastewater per day.

Solid Waste Disposal

Solid waste generated by development in the County is collected by Livermore Sanitation. A majority of the solid waste generated in unincorporated Alameda County went to three landfills in 2019: Altamont Landfill, John Smith Road Landfill, and Vasco Road Sanitary Landfill (CalRecycle 2024). All seven landfills have a substantial amount of remaining capacity. The Altamont Landfill has the most remaining capacity of 65.4 million cubic yards and has an anticipated closure date of 2070 (CalRecycle 2025a).

Electricity and Natural Gas

Natural gas and electricity are provided by Pacific Gas and Electric Company (PG&E). PG&E has a service area of 70,000 square miles in northern and central California. The service area stretches from Eureka to Bakersfield, and from the Pacific Ocean to the Sierra Nevada. PG&E operates 106,681 circuit miles of

electric distribution lines and 18,466 circuit miles of interconnected transmission lines. Furthermore, PG&E operates 42,141 miles of natural gas distribution pipelines and 6,438 miles of transmission pipelines (PG&E 2024). The company is regulated by the California Public Utilities Commission, which was created by the state Legislature in 1911.

Telecommunications

Numerous private wireless and cellular phone service providers serve the South Livermore area. Telephone and residential internet services are provided by AT&T, Verizon, Visible, and T-mobile; and cable services are provided by Xfinity, Directv, and Dish (Signalchecker.com 2025; CableTV.com 2025).

Impact Analysis

a. *Would the project 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?*

c. *Would the project 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?*

Water

Water would be required for temporary construction activities on the project site, including dust suppression, grading and grubbing, compaction, construction equipment wheel washing, and concrete mixing and casting. Water consumption by construction workers and cleaning of portable toilets on the project site may also account for a small portion of overall construction water demand. Watering for dust suppression would demand the most water during construction. The Bay Area Air District (BAAD) has not established a quantitative threshold for fugitive dust emissions but rather states that projects that incorporate BMPs for fugitive dust control during construction, such as watering exposed surfaces and limiting vehicle speeds to 15 miles per hour, would have a less than significant impact related to fugitive dust emissions. The proposed project would be required to include implementation of these BMPs consistent with Policies 293 and 303 in the ECAP. This small amount of water would be similar to other construction projects in the vicinity and would result in a similar temporary impact.

During operation, the proposed project would result in a quantified increase in potable water use of approximately 1,297,456 gallons per year, associated with enhanced event center operations and the addition of a kitchen. As shown in Table 13 and Table 14 in the Setting, Livermore Municipal Water is projected to have a total potable water supply of 27,111 billion gallons per year and a projected demand of 2,263 billion gallons per year in 2045, leaving an available supply margin of 24,848 billion gallons per year. The proposed project's operational demand would represent approximately 0.0052% of this available supply margin. The proposed project would not include the installation of new off-site lateral extensions, valves, or other appurtenances for potable water service.

As described under Environmental Checklist Section 14, *Population and Housing*, the proposed project would not induce unanticipated growth. The proposed project consists of upgrades to the Martinelli Center for enhanced event center uses. The additional water demand from this development potential would not include increased water demand for agricultural uses, as the Martinelli Center modifications would remove some vineyards from the project site to accommodate additional parking.

Wastewater Treatment

The proposed project would involve an extension of municipal sewer lines and improvements to the Martinelli Center. The proposed project would generate minor amounts of wastewater during construction (e.g., from portable sanitation facilities) and an incremental increase in wastewater during operation associated with expanded event use and kitchen facilities. In addition, the proposed project

would enable municipal wastewater service connections for existing uses currently served by on-site septic systems, replacing individual septic treatment as the primary wastewater disposal method in the area. Approximately 0.4 mile of sewer lines would be installed and would support the existing development potential consistent with the ECAP. The expanded sewer facilities would allow the Martinelli Event Center to connect to the City's wastewater system. Subject to necessary approvals (including permitting and service agreements needed from the City of Livermore subject to Alameda County Local Agency Formation Commission approval, County, and/or Livermore-Amador Valley Water Management Agency), the proposed project would also allow existing residences to connect to the City's wastewater system and cease the use of their on-site septic systems. This would result in an increase in wastewater transported to and treated at the LWRP, consistent with the development potential of the adjacent parcels pursuant to the General Plan. The LWRP currently has the capacity to treat up to 8.5 million gallons per day, or 3.1 billion gallons per year. The LWRP currently treats 2.3 billion gallons of wastewater per year and the proposed project would contribute 1,297,456 gallons per year, which would be 0.16% of the LWRP's available remaining capacity. This increase would remain within the facility's existing capacity.

The proposed project is intended to support uses that are consistent with the ECAP and SLVAP or current zoning, and subject to Alameda County Measure D; should development on adjacent parcels that is not consistent with existing land use designations and zoning be proposed, additional environmental review would be required and, potentially, amendments to the governing land use plans and zoning. Furthermore, the proposed project would comply with Policy 275, which would require the County to condition the approval of new development on the verification that adequate wastewater treatment and export and/or reclamation capacity exists to serve the development.

Stormwater Drainage

As discussed in Environmental Checklist Section 10, *Hydrology and Water Quality*, the proposed project would increase impervious surfaces due to the parking lot expansion, which would generate an increase in surface runoff. While the existing off-site public stormwater drainage system would not be expanded or significantly altered by the proposed project, minor on-site modifications to the project site's stormwater management features may be required to satisfy ECAP Policies 277, 279, 280, 313 and Alameda County Code of Ordinance regulations (discussed earlier in Section 9, *Hazards and Hazardous Materials*, and Section 10, *Hydrology and Water Quality*), These improvements may include low impact development techniques such as permeable pavement, bioswales, infiltration basins, and retention basins to help offset the loss of natural infiltration. However, the proposed project would not necessitate major new drainage infrastructure. Therefore, the proposed project would not result in the relocation or construction of new stormwater drainage infrastructure, and impacts would be less than significant.

Electricity and Natural Gas

The proposed project would involve the addition of a kitchen and increased event use, which may require minor upgrades to existing on-site electrical infrastructure. However, no new off-site electrical or natural gas infrastructure extensions, relocations, or capacity expansions would be required, and any minor utility improvements would occur within previously disturbed or developed areas. Therefore, the proposed project would not result in the relocation or construction of new electricity or natural gas infrastructure, and impacts would be less than significant.

Telecommunications

The proposed project would not involve components requiring new telecommunications infrastructure and would not involve the relocation of existing telecommunications facilities. The proposed project would not result in the relocation or construction of new telecommunications infrastructure, and no impact would occur.

LESS THAN SIGNIFICANT IMPACT

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

In order to mitigate potentially significant construction dust impacts, the County would require implementation of the BAAD's basic construction dust control measures as conditions of approval, including watering exposed areas at least twice daily. This would result in demand for small quantities of water during construction. However, construction water demand would be temporary and would not result in a long-term strain on water supplies. Given the temporary and minimal nature of construction water demand, impacts related to construction water consumption would be less than significant.

The proposed project would support existing and future permitted uses to achieve the vision of the As a result, the proposed project would not indirectly cause unanticipated growth in the area. According to the CalEEMod results, the proposed project would utilize approximately 1.3 million gallons of water per year as a result of the Martinelli Center upgrades. The City of Livermore's 2020 UWMP considers all urban water demand from the development potential described in the ECAP; therefore, the 2020 UWMP projections of adequate water during normal, single dry, and multiple dry year scenarios incorporate the potential development of wineries and residences along the project site. Similarly, Zone 7's 2020 UWMP considers all agricultural irrigation water demand in the vicinity of the City of Livermore and projects adequate water for agricultural uses along the project site. Therefore, there would be sufficient water supplies available to serve the proposed project and reasonably foreseeable future development during normal, dry, and multiple dry years, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project 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. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Project construction would generate construction debris, including concrete, asphalt, and land-clearing debris. Approximately 235 cubic yards of asphalt is anticipated to be exported. The proposed project would be required to comply with federal, state, and local statutes and regulations related to solid waste. In accordance with 2022 CALGreen requirements, the proposed project would be required to achieve a minimum of 65 percent diversion rate for construction waste. The proposed project would also be consistent with the County Code of Ordinances Chapter 6.76, which establishes a fee structure for solid waste facilities and activities, ensuring compliance with the California Integrated Waste Management Act of 1989. Fees are determined based on weight, volume, or type of waste and are collected quarterly in advance to cover enforcement and related services. Any unpaid fees are subject to penalties of up to 50 percent of the original amount. The Martinelli Center expansion and project construction would generate 8.8[3] tons of solid waste per day that would go to local landfills. However, the Altamont Landfill has the capacity to receive 11,150 tons per day and an average daily throughput of 500 tons per day (CalRecycle 2025a). Thus, the solid waste generated by the proposed project would not exceed the Altamont Landfill's capacity. Because the proposed project would not generate solid waste in excess of the capacity of local infrastructure and would comply with federal, state, and local management and reduction statutes and regulations related to solid waste, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

[3] Based on an estimated square footage of 564,102.6 for the project site and a rate of 3.12 pounds per 100 square feet per day according to CalRecycle (CalRecycle 2025b), the resulting rate would be 17,600 pounds per 100 square foot per day. When converted to tons, this would equate to 8.8 tons per 100 square feet per day.

This page intentionally left blank.

20 Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
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 downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	■

Setting

The project site is not located within a CAL FIRE designated Very High FHSZ (CAL FIRE 2024). The project site is within a State Responsibility Area (SRA) designated as a Moderate FHSZ (CAL FIRE 2024). The nearest Very High FHSZ area is located approximately 1.3 miles south of the project site (CAL FIRE 2024).

Impact Analysis

a. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

b. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, 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. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project 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. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

Although the project site is located in an SRA, the majority of the proposed project would be constructed within paved rights-of-way. While the proposed project itself would not directly induce population growth, the upgrades to the Martinelli Center would increase event capacity, leading to a higher number of visitors

to the site. However, the proposed project would not introduce new permanent residents or substantially alter wildfire risk exposure. As such, the proposed project would not substantially impair an adopted emergency evacuation plan, exacerbate wildfire risks, require the installation or maintenance of associated infrastructure that may exacerbate fire risk, or expose people or structures to significant risks. Overall, the proposed project would not result in significant impacts related to wildfire hazards.

NO IMPACT

21 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
Does the project:				
a. 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. 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. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	■	☐

Impact Analysis

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?

The proposed project would not substantially degrade the quality of the environment, reduce wildlife habitat, or threaten sensitive species or natural communities. Although the site contains suitable habitat for several special-status species, including California tiger salamander, California red-legged frog, and burrowing owl, implementation of mitigation measures BIO-1(a) through BIO-2 would reduce potential impacts to a less-than-significant level. No special-status plants were observed, and sensitive riparian and wetland habitats like Arroyo Seco would be protected through compliance with County regulations and restoration requirements.

The project site does not contain important examples of the major periods of California history or prehistory. Therefore, the proposed project would not eliminate these resources. In addition, as discussed in Environmental Checklist Section 5, *Cultural Resources*, and Environmental Checklist Section 7, *Geology and Soils,* no historical, archaeological, or paleontological resources were identified along the alignment. Nevertheless, the potential for the recovery of buried cultural materials during construction remains. Implementation of Mitigation Measure CR-1 would reduce impacts to previously undiscovered archaeological resources to a less than significant level by providing a process for evaluating and, as

necessary, avoiding impacts to any resources found during construction. Furthermore, Mitigation Measure GEO-1 would reduce potential impacts to paleontological resources.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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)?

As described in the discussion of Environmental Checklist Sections 1 through 20, with respect to all environmental issues, the proposed project would not result in potentially significant impacts to the environment; anticipated impacts associated with project construction and operation would be either less than significant or less than significant with mitigation incorporated. This is because project construction would be temporary, and project operation would not significantly alter the environmental baseline condition.

Cumulatively considerable impacts could occur if the construction of other projects occurs at the same time as the proposed project and in the same vicinity, such that the effects of similar impacts of multiple projects combine to expose adjacent sensitive receptors to greater levels of impact than would occur under the proposed project. For example, if the construction of other projects in the area occurs at the same time as construction of the proposed project, potential impacts associated with noise and traffic to residents in the project area may be more substantial. There are no major construction projects currently planned in the project vicinity according to the Alameda County Community Development Agency CEQA Projects website and most of the parcels in the project vicinity are in active agricultural use with no major development projects planned. Therefore, construction-related impacts to sensitive receptors are not anticipated.

In addition, cumulative impacts could occur due to indirect growth-inducing impacts, which includes consideration of whether the proposed project would remove an obstacle to additional growth and development. As discussed in Environmental Checklist Section 14, *Population and Housing*, the proposed project would not induce unanticipated growth in the County or surrounding area because it would serve existing development potential consistent with the ECAP and SLVAP.

Most project impacts are temporary, localized effects that would occur during construction. Once operational, the proposed project would not have significant adverse environmental impacts or induce development in the area that could combine with other projects' effects to create cumulatively significant impacts. Therefore, the proposed project would not result in a cumulatively considerable contribution to a significant cumulative impact.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

In general, impacts to human beings are associated with air quality, hazards and hazardous materials, noise, and wildfire impacts. As detailed in Environmental Checklist Section 3, *Air Quality*, the proposed project would not result, either directly or indirectly, in substantial adverse effects related to air quality through its construction or operation. As discussed in Environmental Checklist Section 9, *Hazards and Hazardous Materials*, project operation would not involve the routine use of extremely hazardous materials. Compliance with applicable regulations during project construction would reduce potential impacts on human beings related to hazards and hazardous materials to a less than significant level. During project construction, noise impacts would be limited to the daytime hours of 7:00 a.m. to 7:00 p.m. on weekdays, and construction noise impacts would be temporary and less than significant. Project operation would not increase noise levels. Consequently, operational noise would not significantly impact nearby sensitive receivers. As discussed in Section 20, *Wildfire,* the project is not located in or near a very high fire hazard severity zone and would not impair emergency response or exacerbate wildfire risks.

Therefore, the proposed project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly. Impacts would be less than significant with mitigation.

LESS THAN SIGNIFICANT IMPACT

This page intentionally left blank.

References

Bibliography

Alameda County Fire Department. 2025a. Fire Stations. https://fire.acgov.org/stations-and-facilities/ (accessed February 2025).

_____. 2025b. FAQs. https://fire.acgov.org/faqs/ (accessed January 2025).

Alameda, County of. 1993a. East County Area Plan Environmental Impact Report. http://acgov.org/cda/planning/generalplans/documents/ECAPDraftEIRJune1993.pdf. (accessed January 2025).

_____. Amended 1994. Noise Element of the Alameda County General Plan. Adopted July 31, 1975, Amended May 5, 1994. https://www.acgov.org/cda/planning/generalplans/documents/Noise_Element_1994.pdf (accessed June 2025).

_____. 1993b. East County Area Plan. http://acgov.org/cda/planning/generalplans/documents/EastCountyAreaPlancombined.pdf (accessed January 2025).

_____. 2012. Livermore Executive Airport Airport Land Use Compatibility Plan. https://www.acgov.org/cda/planning/generalplans/documents/Cover_LVK_ALUC2012.pdf (accessed November 2024).

_____. 2013. Livermore Area Recreation and Park District Municipal Service Review. http://www.acgov.org/lafco/documents/supporting_docs_2013_01_10/Item_7_Attach_2_LARPD.pdf (accessed January 2025).

_____. 2024. Zoning Viewer Public Access Map. https://www.acgov.org/cda/planning/ordinance/ordinance-links.htm (accessed November 2024)

Alameda Sheriff's Office, County of. 2024. About Us. https://www.alamedacountysheriff.org/about-us (accessed November 2024).

Alameda County Transportation Commission (ACTC). 2019. https://www.acpwa.org/acpwa-assets/docs/programs-services/streets-roads/2019_Bicycle_and_Pedestrian_Master_Plan_FINALSljs.pdf (accessed January 2025).

_____. 2022. Alameda Countywide Bikeways Network. https://www.alamedactc.org/wp-content/uploads/2024/05/Countywide_Bikeways_Network_Exec_Report_FINAL.pdf (accessed January 2025).

Association of Bay Area Governments (ABAG). 2021. Plan Bay Area. http://projections.planbayarea.org/ (accessed November 2024).

Association of Bay Area Governments (ABAG). 2021. Plan Bay Area 2050 Growth Pattern. https://planbayarea.org/sites/default/files/FinalBlueprintRelease_December2020_GrowthPattern_Jan2021Update.pdf (accessed February 2025).

CableTV.com. 2025. TV and Internet Providers in Livermore, California. https://www.cabletv.com/ca/livermore?zip=94550 (accessed February 2025).

California Department of Conservation (DOC). 2015a. Alameda County Williamson Act FY 2014/2015. https://s3-us-west-1.amazonaws.com/waterfrontballparkdistrict.com/25_ReferencesintheDraftEIR-Section4-17NS/2015-00-00-DOC-AlamedaIndex.pdf (accessed January 2021).

_____. 2015b. CGS Information Warehouse: Mineral Land Classification. https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc (accessed November 2024).

_____. 2018. DOC Maps: Geologic Hazards. https://maps.conservation.ca.gov/geologichazards/DataViewer/index.html (accessed November 2024).

_____. 2021. California Tsunami Maps and Data. *Alameda County Tsunami Hazard Areas*. https://www.conservation.ca.gov/cgs/tsunami/maps/alameda (accessed November 2024).

_____. 2022a. California Important Farmland Finder. https://maps.conservation.ca.gov/dlrp/ciff/ (accessed November 2024).

_____. 2022b. Earthquake Zones of Required Investigation. https://maps.conservation.ca.gov/cgs/EQZApp/ (accessed November 2024).

California Department of Finance (DOF). 2024a. E-4 Population Estimates for Cities, Counties, and the State, 2021-2024, with 2020 Benchmark. https://dof.ca.gov/Forecasting/Demographics/Estimates/e-4-population-estimates-for-cities-counties-and-the-state-2021-2024-with-2020-census-benchmark/ (accessed November 2024).

_____. 2024b. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2024. https://dof.ca.gov/Forecasting/Demographics/Estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2024/ (accessed November 2024).

California Department of Forestry and Fire Protection (CAL FIRE). 2024. https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008 (accessed November 2024).

California Department of Fish and Wildlife (CDFW). 2024. Timberland Conservation Program. https://wildlife.ca.gov/Conservation/Timber (accessed November 2024).

California Department of Resources Recycling and Recovery (CalRecycle). 2024. Jurisdiction Disposal and Alternative Daily Cover (ADC) Tons by Facility. https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility (accessed November 2024).

_____. 2025a. SWIS Facility/Site Activity Details Altamont Landfill & Resource Recovery (01-AA-0009). https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/7?siteID=7 (accessed February 2025).

_____. 2025b. Estimated Solid Waste Generation Rates. https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates (accessed March 2025).

California Department of Toxic Substances Control (DTSC). 2024a. Hazardous Waste and Substances Site List (Cortese). https://www.envirostor.dtsc.ca.gov/public/search?CMD=search&city=&zip=94550&county=&case_number=&business_name=&FEDERAL_SUPERFUND=True&STATE_RESPONSE=True&VOLUNTARY_CLEANUP=True&SCHOOL_CLEANUP=True&CORRECTIVE_ACTION=True&tiered_permit=True&evaluation=True&operating=True&post_closure=True&non_operating=True&inspections=True&inspectionsother=True (accessed November 2024).

_____. 2024b. EnviroStor Database. http://www.envirostor.dtsc.ca.gov/public (accessed November 2024b).

California Department of Transportation (Caltrans). 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. (CT-HWANP-RT-13-069.25.2) September.

_____. 2020. *Transportation and Construction Vibration Guidance Manual.* CT-HWANP-RT-20-365.01.01. April. Available at: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf. Accessed June 2025.

_____. 2024. California State Scenic Highway System Map. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa (accessed November 2024).

California Department of Water Resources (DWR). 2006. California Groundwater Bulletin 118. San Francisco Hydrologic Region, Livermore Valley Groundwater Basin. https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/2003-Basin-Descriptions/2_010_LivermoreValley.pdf (accessed February 2025).

_____. 2020. California's Groundwater Update 2020. https://data.cnra.ca.gov/dataset/calgw_update2020/resource/d2b45d3c-52c0-45ba-b92a-fb3c90c1d4be (accessed February 2025).

California Energy Commission (CEC). 2022. "California energy Consumption Database." https://ecdms.energy.ca.gov/Default.aspx (accessed November 2024).

_____. 2023. Total System Electric Generation. https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2023-total-system-electric-generation (accessed November 2024)

_____. 2024a. "California's Petroleum Market." https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market (accessed November 2024).

_____. 2024b. California Retail Fuel Outlet Annual Reporting (CEC-A15) Results. https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting (accessed November 2024).

California Environmental Protection Agency (CalEPA). 2025. Cortese List Data Resources. https://calepa.ca.gov/sitecleanup/corteselist/ (accessed February 2025).

California Geological Survey. 2002. Note 36 – California Geomorphic Provinces. https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf

California Water Service Company (Cal Water). 2021. 2020 Urban Water Management Plan. https://www.calwater.com/docs/uwmp2020/LIV_2020_UWMP_FINAL.pdf (Accessed November 2024).

Dibblee, T.W. and J.A. Minch. 2006. Geologic map of the Altamont quadrangle, Alameda County, California. [map]. Dibblee Geologic Foundation, Dibblee Foundation Map DF-197, scale 1:24,000.

Federal Emergency Management Agency (FEMA). 2024. FEMA's National Flood Hazard Layer Viewer (NFHL). https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd (accessed November 2024).

Federal Highway Administration (FHWA). 2006. *FHWA Highway Construction Noise Handbook*. (FHWAHEP-06-015; DOT-VNTSC-FHWA-06-02). Available at: http://www.fhwa.dot.gov/environment/construction_noise/handbook. Accessed June 2025.

_____. 2011. Highway Traffic Noise Analysis and Abatement Policy and Guidance.

Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment*. November. Available at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed June 2025.

Groundwater Exchange. 2025. Livermore Valley. https://groundwaterexchange.org/basin/livermore-valley/ (accessed February 2025).

Jefferson, G.T. 2010. A catalogue of late Quaternary vertebrates from California. *Natural History Museum of Los Angeles County Technical Report*. Volume 7, pp. 5-172.

Livermore Area Recreation and Park District (LARPD). 2016. Parks, Recreation and Trails Master Plan. https://www.larpd.org/media/Policies/LARPD_PRTMP_Final_Document_Adopted_June_29_2016%20(1).pdf (accessed January 2025).

Livermore, City of. 2015. General Plan 2003-2025. https://www.livermoreca.gov/departments/community-development/planning/2003-2025-general-plan#!/ (accessed February 2025).

_____. 2021. 2020 Urban Water Management Plan. https://www.livermoreca.gov/home/showpublisheddocument/7524/638192345835370000 (accessed February 2025).

_____. 2025. Water Supply. https://www.livermoreca.gov/departments/public-works/water-resources/livermore-municipal-water/water-supply (accessed February 2025).

Livermore Valley Joint Unified School District (LVJUSD). 2025. Our Schools. https://www.livermoreschools.org/district/our-schools (accessed January 2025).

Pacific Gas and Electric Company (PG&E). 2024. Company profile. https://www.pge.com/en_US/about-pge/company-information/profile/profile.page (accessed November 2024).

Paleobiology Database. 2024. The Paleobiology Database. http://paleobiodb.org/ (accessed December 2024).

San Francisco Bay Regional Water Quality Control Board (RWQCB). 2010. Surface Water Body Beneficial Use Documentation Tables. https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/amendments/WaterBodies/Documt%20tables%20FINAL%20new%20cover%20BOOKMARKS%204-6-2012.pdf (accessed November 2024).

_____. 2019. Water Quality Control Plan (Basin Plan). San Francisco Bay Basin (Region 2). https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html (accessed February 2025).

Signalchecker.com. 2025. 94550 Cell Coverage Result. https://www.signalchecker.com/ (accessed February 2025).

Society of Vertebrate Paleontology (SVP). 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. Society of Vertebrate Paleontology Impact Mitigation Guidelines Revision Committee. https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines-1.pdf.

State Water Resources Control Board (SWRCB). 2024. GeoTracker. https://geotracker.waterboards.ca.gov/ (accessed November 2024).

United States Department of Agriculture (USDA) Natural Resources Conservation Service. 2024. Web Soil Survey. https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx (accessed January 2025).

United States Energy Information Administration. 2021. California State Profile and Energy Estimates. https://www.eia.gov/state/index.php (accessed November 2024).

United States Environmental Protection Agency (USEPA). 2024. SEMS Search. https://www.epa.gov/enviro/sems-search (accessed November 2024).

United States Geological Survey (USGS). 2024a. U.S. Quaternary Faults. https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf (accessed January 2025).

_____. 2024b. U.S. Landslide Inventory and Susceptibility. https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=ae120962f459434b8c904b456c82669d (accessed January 2025).

_____. 2025. The National Map. Advanced Viewer. https://apps.nationalmap.gov/viewer/ (accessed February 2025).

University of California Museum of Paleontology (UCMP). 2024. UCMP online database specimen search portal, http://ucmpdb.berkeley.edu/ (accessed December 2024)

Zone 7 Water Agency. 2023. Annual Report for the Sustainable Groundwater Management Program - 2023 Water Year. *Livermore Valley Groundwater Basin*. https://www.zone7water.com/sites/main/files/file-attachments/2023_zone_7_annual_report_final_complete_2.pdf?1711744087 (accessed February 2025).

List of Preparers

Rincon Consultants, Inc. prepared this Initial Study under contract to the County of Alameda. Persons involved in data gathering analysis, project management, and quality control are listed below.

Rincon Consultants, Inc.

Abe Leider, Principal
Aileen Mahoney, Project Manager
Katherine Fikan, Project Manager
Michael Huang, Environmental Planner
Aaron Rojas, Jr., Environmental Planner
Jesse McCandless, Environmental Planner
Andrew McGrath, PhD, Paleontologist
Kaylee Herbold, GIS/CADD Specialist

This page intentionally left blank.

Appendix A

CalEEMod Worksheets

Greenville Road Sewer Extensions - AQGHG - IS-MND

Modeler: Aaron Rojas
Version: 2/21/2025

Construction Assumptions

Project Location	**County**	**Title:**	Greenville Road Sewer Extension Project
	Alameda County	**Date:**	2/21/2025
Climate Zone	1		
Urbanization	Suburban		
Operational Year (Buildout)	2027		
Construction Year	2026		
Utility Company	PG&E		

Land Use	Subtype	Unit	Size	Acre	Building Sq Ft	spaces	mile
Commercial	General Office Building	1000sf	7.3	default	7300		
Parking	Parking Lot	space		default		140	
Linear	Road Construction	mile	0.4	0.971034483			0.4

Project Schedule: Start late 2026 - Applicant Provided

** Martinelli Center has a construction schedule from the applicant. Assumed 31 construction days for pipeline based on similar assumptions in the City SEIR

Phase	Start Date	End Date	Days/Week	Work Days
Linear, Grubbing	10/1/2026	10/5/2026	5	3
Linear, Grading	10/1/2026	10/16/2026	5	12
Linear, Drainage	10/1/2026	10/15/2026	5	11
Linear, Paving	10/1/2026	10/7/2026	5	5
Site Preparation	10/17/2026	10/30/2026	5	10
Trenching	10/31/2026	11/13/2026	5	10
Grading	11/14/2026	11/16/2026	5	1
Building Construction	11/17/2026	12/14/2026	5	20
Paving	12/15/2026	12/16/2026	5	2
Demolition	12/17/2026	1/13/2027	5	20

Construction Equipment List See data request. Not a precise equipment list for each phase, but general equipment list

Dust from Material Movement 920 cy of import and 122 cy of export
**Water site to minimize dust based on SCAQMD basic construction pratices

Construction Demo None square feet

Construction Trips & VMT
**10 cubic yard of hauling capacity

Hauling tirps per day during trenching and grading
18.94545455

Onroad Fugitive Dust Uses CalEEmod Defaults

Architectural Coatings Uses CalEEMod Defaults
Consistent with SCAMQD Rule 1113

Greenville Road Sewer Extensions - AQGHG - IS-MND

Modeler: Aaron Rojas
Version: 2/21/2025

Operational Emissions

Mobile Sources

Vehicle Trips:	**Assume two mobile trips per month
Trip Gen	0.01826484
Vehicle Emissions:	Uses CalEEMod Defaults
Vehicle Fleet Mix:	Uses CalEEMod Defaults
Road Dust:	Uses CalEEMod Defaults

Area Sources

Hearths:	N/A
Consumer Products:	Uses CalEEMod Defaults
Architectural Coating:	
Landscape Equipment:	Uses CalEEMod Defaults

Energy Use Uses CalEEMod Defaults

Default Kwh	New Kwh	Default NG	NG to Kwh
154,531.02	205,344.95	173,377.12	50813.92732

Water/Wastewater

Water:	Uses CalEEMod Defaults
Wastewater:	Uses CalEEMod Defaults

Solid Waste

Uses CalEEMod Defaults

Off-Road Equiment

Stationary Sources N/A

Vegetation N/A

Greenville Road Sewer Extension Project Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

3.3. Demolition (2027) - Unmitigated

3.5. Site Preparation (2026) - Unmitigated

3.7. Grading (2026) - Unmitigated

3.9. Building Construction (2026) - Unmitigated

3.11. Paving (2026) - Unmitigated

3.13. Trenching (2026) - Unmitigated

3.15. Linear, Grubbing & Land Clearing (2026) - Unmitigated

3.17. Linear, Grading & Excavation (2026) - Unmitigated

3.19. Linear, Drainage, Utilities, & Sub-Grade (2026) - Unmitigated

3.21. Linear, Paving (2026) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Greenville Road Sewer Extension Project
Construction Start Date	10/1/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	35.6
Location	37.671090404105655, -121.69754368320658
County	Alameda
City	Unincorporated
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1892
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Office Building	7.30	1000sqft	0.17	7,300	0.00	—	—	—

Parking Lot	140	Space	1.26	0.00	0.00	—	—	—
Road Construction	0.40	Mile	0.97	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.07	6.79	57.2	69.1	0.13	2.41	3.13	5.54	2.21	1.44	2.63	—	14,934	14,934	0.60	0.23	0.08	14,993
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.38	0.32	2.57	3.08	0.01	0.10	0.19	0.28	0.09	0.06	0.15	—	675	675	0.03	0.01	0.08	680
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.06	0.47	0.56	< 0.005	0.02	0.03	0.05	0.02	0.01	0.03	—	112	112	< 0.005	< 0.005	0.01	113

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2026	8.07	6.79	57.2	69.1	0.13	2.41	3.13	5.54	2.21	1.44	2.63	—	14,934	14,934	0.60	0.23	0.08	14,993
2027	0.91	0.76	5.43	9.00	0.02	0.18	0.08	0.26	0.16	0.02	0.18	—	2,281	2,281	0.09	0.02	0.01	2,290
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.38	0.32	2.57	3.08	0.01	0.10	0.19	0.28	0.09	0.06	0.15	—	675	675	0.03	0.01	0.08	680
2027	0.02	0.02	0.14	0.23	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	58.1	58.1	< 0.005	< 0.005	< 0.005	58.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.07	0.06	0.47	0.56	< 0.005	0.02	0.03	0.05	0.02	0.01	0.03	—	112	112	< 0.005	< 0.005	0.01	113
2027	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.61	9.61	< 0.005	< 0.005	< 0.005	9.65

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.24	0.24	< 0.005	0.32	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.15	149	155	0.64	0.01	0.02	174
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.19	0.19	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.15	148	154	0.64	0.01	0.02	172
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.21	0.21	< 0.005	0.16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.15	148	154	0.64	0.01	0.02	173
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	0.04	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.02	24.5	25.6	0.11	< 0.005	< 0.005	28.7

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.29	1.29	< 0.005	< 0.005	< 0.005	1.31
Area	0.24	0.24	< 0.005	0.32	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.31	1.31	< 0.005	< 0.005	—	1.31
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	142	142	0.02	< 0.005	—	143
Water	—	—	—	—	—	—	—	—	—	—	—	2.49	4.70	7.18	0.26	0.01	—	15.4
Waste	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	0.24	0.24	< 0.005	0.32	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.15	149	155	0.64	0.01	0.02	174
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.22	1.22	< 0.005	< 0.005	< 0.005	1.23
Area	0.19	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	142	142	0.02	< 0.005	—	143
Water	—	—	—	—	—	—	—	—	—	—	—	2.49	4.70	7.18	0.26	0.01	—	15.4
Waste	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	0.19	0.19	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.15	148	154	0.64	0.01	0.02	172
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.22	1.22	< 0.005	< 0.005	< 0.005	1.24
Area	0.21	0.21	< 0.005	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.64	0.64	< 0.005	< 0.005	—	0.65
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	142	142	0.02	< 0.005	—	143
Water	—	—	—	—	—	—	—	—	—	—	—	2.49	4.70	7.18	0.26	0.01	—	15.4
Waste	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	0.21	0.21	< 0.005	0.16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.15	148	154	0.64	0.01	0.02	173

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.20	0.20	< 0.005	< 0.005	< 0.005	0.21
Area	0.04	0.04	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.11	0.11	< 0.005	< 0.005	—	0.11
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	23.4	23.4	< 0.005	< 0.005	—	23.7
Water	—	—	—	—	—	—	—	—	—	—	—	0.41	0.78	1.19	0.04	< 0.005	—	2.55
Waste	—	—	—	—	—	—	—	—	—	—	—	0.61	0.00	0.61	0.06	0.00	—	2.12
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.04	0.04	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.02	24.5	25.6	0.11	< 0.005	< 0.005	28.7

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89	0.75	5.65	8.69	0.02	0.19	—	0.19	0.18	—	0.18	—	2,205	2,205	0.09	0.02	—	2,212
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.03	0.02	0.17	0.26	< 0.005	0.01	—	0.01	0.01	—	0.01	—	64.7	64.7	< 0.005	< 0.005	—	64.9
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.7	10.7	< 0.005	< 0.005	—	10.8
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.32	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	78.8	78.8	< 0.005	< 0.005	0.01	79.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.33	2.33	< 0.005	< 0.005	< 0.005	2.36
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.39	0.39	< 0.005	< 0.005	< 0.005	0.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Demolition (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	5.40	8.70	0.02	0.18	—	0.18	0.16	—	0.16	—	2,204	2,204	0.09	0.02	—	2,212
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	56.1	56.1	< 0.005	< 0.005	—	56.3
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.28	9.28	< 0.005	< 0.005	—	9.32

Demoliti	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.30	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	77.4	77.4	< 0.005	< 0.005	0.01	78.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.98	1.98	< 0.005	< 0.005	< 0.005	2.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.33
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.31	1.10	10.1	9.75	0.02	0.42	—	0.42	0.39	—	0.39	—	1,775	1,775	0.07	0.01	—	1,781
Dust From Material Movement	—	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.6	48.6	< 0.005	< 0.005	—	48.8
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.05	8.05	< 0.005	< 0.005	—	8.08
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.24	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	59.1	59.1	< 0.005	< 0.005	0.01	59.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.63	1.63	< 0.005	< 0.005	< 0.005	1.65
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.45	1.22	11.2	11.6	0.02	0.46	—	0.46	0.43	—	0.43	—	2,063	2,063	0.08	0.02	—	2,070
Dust From Material Movement	—	—	—	—	—	—	2.58	2.58	—	1.32	1.32	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.65	5.65	< 0.005	< 0.005	—	5.67
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.94	0.94	< 0.005	< 0.005	—	0.94
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.40	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	98.5	98.5	< 0.005	< 0.005	0.01	99.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.10	0.03	1.65	0.63	0.01	0.03	0.35	0.38	0.02	0.10	0.11	—	1,304	1,304	0.07	0.21	0.07	1,368
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.28
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.57	3.57	< 0.005	< 0.005	< 0.005	3.75
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.59	0.59	< 0.005	< 0.005	< 0.005	0.62

3.9. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.02	0.84	6.62	8.39	0.01	0.19	—	0.19	0.18	—	0.18	—	1,122	1,122	0.05	0.01	—	1,126
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.36	0.46	< 0.005	0.01	—	0.01	0.01	—	0.01	—	61.5	61.5	< 0.005	< 0.005	—	61.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.2	10.2	< 0.005	< 0.005	—	10.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.4	18.4	< 0.005	< 0.005	< 0.005	18.7
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.4	31.4	< 0.005	< 0.005	< 0.005	32.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.02	1.02	< 0.005	< 0.005	< 0.005	1.03
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.72	1.72	< 0.005	< 0.005	< 0.005	1.80
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.17	0.17	< 0.005	< 0.005	< 0.005	0.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.28	0.28	< 0.005	< 0.005	< 0.005	0.30
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79	0.67	5.88	8.19	0.01	0.25	—	0.25	0.23	—	0.23	—	1,244	1,244	0.05	0.01	—	1,248
Paving	2.92	2.92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.81	6.81	< 0.005	< 0.005	—	6.84
Paving	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.13	1.13	< 0.005	< 0.005	—	1.13
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.48	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	118	118	< 0.005	0.01	0.01	120
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.65	0.65	< 0.005	< 0.005	< 0.005	0.66
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.11	0.11	< 0.005	< 0.005	< 0.005	0.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Trenching (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.23	0.20	1.86	2.93	< 0.005	0.06	—	0.06	0.05	—	0.05	—	432	432	0.02	< 0.005	—	433
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.8	11.8	< 0.005	< 0.005	—	11.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.96	1.96	< 0.005	< 0.005	—	1.97
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.16	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.4	39.4	< 0.005	< 0.005	< 0.005	40.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.10	0.03	1.65	0.63	0.01	0.03	0.35	0.38	0.02	0.10	0.11	—	1,304	1,304	0.07	0.21	0.07	1,368
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.7	35.7	< 0.005	0.01	0.03	37.5

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.18	0.18	< 0.005	< 0.005	< 0.005	0.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.92	5.92	< 0.005	< 0.005	0.01	6.21

3.15. Linear, Grubbing & Land Clearing (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	0.37	3.22	3.48	< 0.005	0.19	—	0.19	0.17	—	0.17	—	490	490	0.02	< 0.005	—	492
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.03	4.03	< 0.005	< 0.005	—	4.04
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.67	0.67	< 0.005	< 0.005	—	0.67
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.16	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.4	39.4	< 0.005	< 0.005	< 0.005	40.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.33
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Linear, Grading & Excavation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.52	2.96	25.2	29.1	0.06	1.09	—	1.09	1.00	—	1.00	—	6,495	6,495	0.26	0.05	—	6,517
Dust From Material Movement	—	—	—	—	—	—	1.24	1.24	—	0.13	0.13	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.83	0.96	< 0.005	0.04	—	0.04	0.03	—	0.03	—	214	214	0.01	< 0.005	—	214
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.02	0.02	0.15	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	35.4	35.4	< 0.005	< 0.005	—	35.5
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	0.95	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	236	236	0.01	0.01	0.02	240
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	26.2	26.2	< 0.005	< 0.005	< 0.005	27.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.83	7.83	< 0.005	< 0.005	0.01	7.94
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.90
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.30	1.30	< 0.005	< 0.005	< 0.005	1.31
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Linear, Drainage, Utilities, & Sub-Grade (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.85	2.39	21.2	23.3	0.05	0.83	—	0.83	0.76	—	0.76	—	5,693	5,693	0.23	0.05	—	5,712
Dust From Material Movement	—	—	—	—	—	—	1.03	1.03	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.07	0.64	0.70	< 0.005	0.02	—	0.02	0.02	—	0.02	—	172	172	0.01	< 0.005	—	172
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.4	28.4	< 0.005	< 0.005	—	28.5

Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	0.79	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	197	197	< 0.005	0.01	0.02	200
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.98	5.98	< 0.005	< 0.005	0.01	6.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.99	0.99	< 0.005	< 0.005	< 0.005	1.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Linear, Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.00	0.84	7.37	10.8	0.01	0.30	—	0.30	0.28	—	0.28	—	1,619	1,619	0.07	0.01	—	1,625
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.2	22.2	< 0.005	< 0.005	—	22.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.67	3.67	< 0.005	< 0.005	—	3.68
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.56	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	138	138	< 0.005	0.01	0.01	140
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.90	1.90	< 0.005	< 0.005	< 0.005	1.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.32
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.29	1.29	< 0.005	< 0.005	< 0.005	1.31
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.29	1.29	< 0.005	< 0.005	< 0.005	1.31
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.22	1.22	< 0.005	< 0.005	< 0.005	1.23
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.22	1.22	< 0.005	< 0.005	< 0.005	1.23
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.20	0.20	< 0.005	< 0.005	< 0.005	0.21
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.20	0.20	< 0.005	< 0.005	< 0.005	0.21

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	115	115	0.02	< 0.005	—	116
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	26.9	26.9	< 0.005	< 0.005	—	27.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	142	142	0.02	< 0.005	—	143
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	115	115	0.02	< 0.005	—	116
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	26.9	26.9	< 0.005	< 0.005	—	27.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	142	142	0.02	< 0.005	—	143
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	19.0	19.0	< 0.005	< 0.005	—	19.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	4.45	4.45	< 0.005	< 0.005	—	4.49
Total	—	—	—	—	—	—	—	—	—	—	—	—	23.4	23.4	< 0.005	< 0.005	—	23.7

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.16	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.06	0.05	< 0.005	0.32	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.31	1.31	< 0.005	< 0.005	—	1.31
Total	0.24	0.24	< 0.005	0.32	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.31	1.31	< 0.005	< 0.005	—	1.31
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consum Products	0.16	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.19	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	< 0.005	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.11	0.11	< 0.005	< 0.005	—	0.11
Total	0.04	0.04	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.11	0.11	< 0.005	< 0.005	—	0.11

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.49	4.70	7.18	0.26	0.01	—	15.4

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.49	4.70	7.18	0.26	0.01	—	15.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.49	4.70	7.18	0.26	0.01	—	15.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.49	4.70	7.18	0.26	0.01	—	15.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.41	0.78	1.19	0.04	< 0.005	—	2.55
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.41	0.78	1.19	0.04	< 0.005	—	2.55

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.61	0.00	0.61	0.06	0.00	—	2.12
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.61	0.00	0.61	0.06	0.00	—	2.12

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	12/17/2026	1/13/2027	5.00	20.0	—
Site Preparation	Site Preparation	10/17/2026	10/30/2026	5.00	10.0	—
Grading	Grading	11/14/2026	11/16/2026	5.00	1.00	—
Building Construction	Building Construction	11/17/2026	12/14/2026	5.00	20.0	—
Paving	Paving	12/15/2026	12/16/2026	5.00	2.00	—
Trenching	Trenching	10/31/2026	11/13/2026	5.00	10.0	—
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	10/1/2026	10/5/2026	5.00	3.00	—
Linear, Grading & Excavation	Linear, Grading & Excavation	10/1/2026	10/16/2026	5.00	12.0	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	10/1/2026	10/15/2026	5.00	11.0	—
Linear, Paving	Linear, Paving	10/1/2026	10/7/2026	5.00	5.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Demolition	Off-Highway Trucks	Diesel	Average	1.00	8.00	376	0.38

Site Preparation	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Grading	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Building Construction	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Trenching	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43

Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Grading & Excavation	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36

Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	10.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	12.5	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	18.9	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	2.34	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	1.20	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	5.00	11.7	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.40	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	30.0	11.7	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.40	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	25.0	11.7	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.40	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	17.5	11.7	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.40	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

Trenching	—	—	—	—
Trenching	Worker	5.00	11.7	LDA,LDT1,LDT2
Trenching	Vendor	—	8.40	HHDT,MHDT
Trenching	Hauling	18.9	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	5.00	0.00	—
Grading	920	122	0.50	0.00	—
Paving	0.00	0.00	0.00	0.00	2.23
Linear, Grubbing & Land Clearing	—	—	0.97	0.00	—
Linear, Grading & Excavation	—	—	0.97	0.00	—
Linear, Drainage, Utilities, & Sub-Grade	—	—	0.97	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Office Building	0.00	0%
Parking Lot	1.26	100%
Road Construction	0.97	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Office Building	0.13	0.13	0.13	48.7	1.67	1.67	1.67	608
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	10,950	3,650	3,293

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Office Building	205,345	204	0.0330	0.0040	0.00
Parking Lot	48,080	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Office Building	1,297,456	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Office Building	6.79	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit

Temperature and Extreme Heat	16.2	annual days of extreme heat
Extreme Precipitation	2.40	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	28.1	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	1	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	1	1	1	2
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	48.5
AQ-PM	12.6
AQ-DPM	7.08
Drinking Water	66.3
Lead Risk Housing	6.48
Pesticides	59.1
Toxic Releases	20.3

Traffic	66.2
Effect Indicators	—
CleanUp Sites	94.2
Groundwater	93.1
Haz Waste Facilities/Generators	100
Impaired Water Bodies	94.6
Solid Waste	99.8
Sensitive Population	—
Asthma	21.6
Cardio-vascular	29.6
Low Birth Weights	30.2
Socioeconomic Factor Indicators	—
Education	19.3
Housing	5.82
Linguistic	27.3
Poverty	2.20
Unemployment	40.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	93.28884897
Employed	75.70896959
Median HI	96.04773515
Education	—
Bachelor's or higher	79.22494546
High school enrollment	100

Preschool enrollment	65.18670602
Transportation	—
Auto Access	95.6242782
Active commuting	53.47106378
Social	—
2-parent households	56.91004748
Voting	75.59348133
Neighborhood	—
Alcohol availability	65.35352239
Park access	31.47696651
Retail density	12.8576928
Supermarket access	2.399589375
Tree canopy	43.16694469
Housing	—
Homeownership	86.3852175
Housing habitability	90.33748236
Low-inc homeowner severe housing cost burden	94.57205184
Low-inc renter severe housing cost burden	57.85961761
Uncrowded housing	67.80443988
Health Outcomes	—
Insured adults	91.7875016
Arthritis	82.7
Asthma ER Admissions	67.4
High Blood Pressure	96.3
Cancer (excluding skin)	52.2
Asthma	72.9
Coronary Heart Disease	93.8
Chronic Obstructive Pulmonary Disease	89.8

Diagnosed Diabetes	93.4
Life Expectancy at Birth	40.2
Cognitively Disabled	94.6
Physically Disabled	92.6
Heart Attack ER Admissions	47.6
Mental Health Not Good	76.1
Chronic Kidney Disease	93.4
Obesity	75.0
Pedestrian Injuries	74.0
Physical Health Not Good	88.1
Stroke	93.8
Health Risk Behaviors	—
Binge Drinking	12.7
Current Smoker	74.7
No Leisure Time for Physical Activity	88.8
Climate Change Exposures	—
Wildfire Risk	0.2
SLR Inundation Area	0.0
Children	56.6
Elderly	63.3
English Speaking	65.3
Foreign-born	33.9
Outdoor Workers	54.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	81.3
Traffic Density	46.7
Traffic Access	47.6
Other Indices	—

Hardship	7.6
Other Decision Support	—
2016 Voting	69.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	29.0
Healthy Places Index Score for Project Location (b)	90.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	The construction duration for each phase of the Martinelli Center were provided by the applicant. Assumed construction would start late 2026. Assumed 31 work days to complete the sewer expansion, based on assumptions used in the City's SEIR.
Construction: Off-Road Equipment	Anticipated construction equipment were provided by the applicant for the Martinelli Center. Default equipment list is used for the sewer expansion work.

Construction: Trips and VMT	Assumed the soil import and export would occur between the trenching and grading phase. Additionally, haul truck would have a 10 cubic yard of soil haul capacity, according to the applicant.
Operations: Vehicle Data	It is assumed that two worker trips per month will be necessary to conduct maintenance and repair activities.
Operations: Energy Use	No natural gas consumption. Default natural gas consumption was converted to kWh and added to default general office building electricity consumption.

Appendix B

Biological Resources Assessment



Greenville Road Sewer Extension Project

Biological Resources Assessment

prepared for

Alameda County
Contact: Jaimie Orfanos, Assistant Director
Community Development Agency
224 West Winton Avenue, Room 110
Hayward, California 94544

prepared by

Rincon Consultants, Inc.
66 Franklin Street, Suite 300
Oakland, California 94607

April 2025

RINCON CONSULTANTS, INC. SINCE 1994

Greenville Road Sewer Extension Project

Biological Resources Assessment

prepared for

Alameda County
Contact: Jaimie Orfanos, Assistant Director
Community Development Agency
224 West Winton Avenue, Room 110
Hayward, California 94544

prepared by

Rincon Consultants, Inc.
66 Franklin Street, Suite 300
Oakland, California 94607

April 2025

RINCON CONSULTANTS, INC. SINCE 1994

Table of Contents

Executive Summary 1
1 Introduction 3
1.1 Project Location 3
1.2 Project Description 3
1.3 Regulatory Summary 6
1.3.1 Definition of Special-status Species 7
1.3.2 Environmental Statutes 7
1.3.3 Guidelines for Determining CEQA Significance 7
1.3.4 Guidelines for Determining NEPA Significance 8
2 Methodology 9
2.1 Area of Potential Effects 9
2.2 Literature Review 9
2.3 Field Reconnaissance Survey 10
2.4 Impact Evaluation 10
3 Existing Conditions 11
3.1 Physical Characteristics 11
3.1.1 Climate, Topography, and Geography 11
3.1.2 Watershed and Drainages 11
3.1.3 Soils 11
3.2 Vegetation Communities and Land Cover Types 11
3.3 General Wildlife 14
4 Sensitive Biological Resources 15
4.1 Special-Status Species 15
4.1.1 Special-Status Plant Species 15
4.1.2 Special-Status Wildlife Species 16
4.1.3 Native Nesting Birds 17
4.2 Sensitive Natural Communities and Critical Habitat 17
4.3 Jurisdictional Waters and Wetlands 17
4.4 Wildlife Movement 19
4.5 Resources Protected by Local Policies and Ordinances 19
4.6 Habitat Conservation Plans and Natural Community Conservation Plans 19
5 Impact Analysis and Mitigation Measures 20
5.1 Special-Status Species 20
5.1.1 Special-status Plants 20
5.1.2 Special-status Wildlife 20
5.2 Sensitive Natural Communities and Critical Habitat 26

5.3 Jurisdictional Waters and Wetlands 26
5.4 Wildlife Movement 27
5.5 Resources Protected by Local Policies and Ordinances 27
5.6 Habitat Conservation Plans 28
6 Limitations, Assumptions, and Use Reliance 29
7 References 30
8 List of Preparers 32

Tables

Table 1 Special-status Animals with Potential to Occur in the Project Area 16

Figures

Figure 1 Regional Location Map 4
Figure 2 Project Location 5
Figure 3 Vegetation Communities, Land Cover Types, and Aquatic Habitats 12
Figure 4 Potentially Jurisdictional Areas 18

Appendices

Appendix A Regulatory Setting
Appendix B Site Photographs
Appendix C Floral and Faunal Compendium
Appendix D Special-Status Species Evaluation Tables

Executive Summary

This report provides details the results of a Biological Resources Assessment performed by Rincon Consultants, Inc. for the Greenville Road Sewer Extension Project (project) in Alameda County, California. Information regarding existing conditions at and near the project site and an assessment of potential impacts to sensitive biological resources, based on proposed project activities, are included. This Biological Resources Assessment was prepared to serve as the basis for an analysis of potential impacts to biological resources pursuant to the California Environmental Quality Act and National Environmental Policy Act environmental review processes.

The project site is located in unincorporated Alameda County, comprising a segment of the Greenville Road right-of-way between Tesla Road and the Martinelli Center, as well as the parcel containing the Martinelli Center and the southern portion of the parcel immediately north of the Martinelli Center. The City of Livermore certified a Supplemental Environmental Impact Report (SEIR) in July 2022 for the South Livermore Sewer Expansion Project, which includes the extension of sewer pipelines to the intersection of Tesla Road and Greenville Road in the County of Alameda. The County of Alameda has determined that an extension of the City of Livermore's approved South Livermore Sewer Expansion Project, which would serve additional parcels located along Greenville Road, would be beneficial to the environmental conditions on those parcels and in adjacent areas.

The Area of Potential Effects (APE) analyzed herein comprises the footprint of the proposed project components, as well as a 50-foot buffer around those features, in order to capture potential direct and indirect impacts to sensitive biological resources.

Eight terrestrial vegetation and land cover types and one aquatic feature were observed within the APE during the general biological field survey. Potentially jurisdictional aquatic features within the APE are limited to Arroyo Seco, an ephemeral stream which flows under Greenville Road near the center of the project alignment. Temporary construction impacts to Arroyo Seco would require authorization from the Regional Water Quality Control Board under Section 401 of the Clean Water Act and Porter-Cologne Act, and from the California Department of Fish and Wildlife under Section 1062 of the California Fish and Game code. No permanent impacts to Arroyo Seco are expected as a result of the proposed project.

No special-status plant species were observed during the reconnaissance field survey, and none are expected to occur within the APE, due to the lack of suitable habitat, level of disturbance from agricultural use, and known species ranges. Based on the existing habitats observed during the field survey, eight special-status wildlife species have a moderate or greater potential to occur in the APE:

- Moderate Potential to Occur
  - Western spadefoot (*Spea hammondii*), federally proposed threatened
  - Burrowing owl (*Athene cunicularia*), state candidate endangered
  - White-tailed kite (*Elanus leucurus*), fully protected
  - Loggerhead shrike (*Lanius ludovicianus*), state species of special concern
- High Potential to Occur
  - California tiger salamander – central California DPS (*Ambystoma californiense*), federal and state threatened

- California red-legged frog (*Rana draytonii*), federally threatened
- Cooper"s hawk (*Accipiter cooperii*), watch list
- Ferruginous hawk (*Buteo regalis*), watch list

Direct and indirect impacts to special-status species during construction activities would be minimized and/or avoided to the extent feasible with the implementation of measures described in Section 5, *Impact Analysis and Mitigation Measures*. Vegetation within and adjacent to the project site offers potential nesting habitat for bird species that are protected under the federal Migratory Bird Treaty Act and California Fish and Game Code. No adverse direct and indirect effects to nesting birds would occur with implementation of the proposed avoidance and minimization measures.

Implementation of the proposed action ***may affect, but is not likely to adversely affect*** Western spadefoot. Implementation of the proposed action is ***likely to adversely affect*** California tiger salamander and California red-legged frog.

Fremont cottonwood riparian is a sensitive natural community within the APE; however, no direct impacts to the community would occur. Avoidance and mitigation measures would reduce potential indirect impacts to a less than significant level.

Potential jurisdictional areas in the APE include Arroyo Seco and the riparian corridor. No impacts to riparian areas are proposed. However, proposed extension of the sewer line may require open trench or jack-and bore construction across Arroyo Seco, and may require permitting from the Regional Water Quality Control Board and California Department of Fish and Wildlife. With restoration to previous conditions, as proposed under Mitigation Measure BIO-2(a) only temporary impacts to jurisdictional areas are expected.

The APE is within the East Alameda County Conservation Strategy area; however, the Conservation Strategy is not an adopted habitat conservation plan or natural community conservation plan. Rather, it is intended to provide guidance and recommendations to address species impacts for the purpose of project permitting under the federal and state Endangered Species Acts. Therefore, the project and proposed mitigation measures have been designed to be consistent with the East Alameda County Conservation Strategy.

1 Introduction

Rincon Consultants, Inc. (Rincon) prepared this Biological Resources Assessment (BRA) to document the existing biological conditions and analyze impacts to biological resources that occur or may occur at the Greenville Road Sewer Extension project (project) site in Alameda County (County), California. This BRA was prepared with the intent of serving as the basis for analysis of potential impacts to biological resources pursuant to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) environmental review processes.

1.1 Project Location

The project site is located in unincorporated Alameda County, comprising a segment of the Greenville Road right-of-way between Tesla Road and the Martinelli Center, as well as the parcel containing the Martinelli Center (3585 Greenville Road; Assessor's Parcel Number 99A-1602-13-1, 8.56 acres in size) and an approximately 3-acre portion of the parcel to the north (Assessor's Parcel Number 99A-1602-5-3), both owned by the Alameda County Surplus Property Authority. Access to the project site is provided locally by accessing Greenville Road via Tesla Road, and regionally by Interstate 580, which is located approximately 3.5 miles north of the project site (Figure 1 and Figure 2). The South Bay Aqueduct flows parallel to the western side of the Martinelli Center parcel, and Arroyo Seco, which orients in an east-west direction, flows beneath Greenville Road south of the Martinelli Center.

1.2 Project Description

The proposed project includes two components: 1) the extension of a sewer line along Greenville Road between Tesla Road and the Martinelli Center, and 2) modifications to and/or re-use of the Martinelli Center. These components are described in more detail below.

Sewer Line Expansion

The proposed project entails the extension of sewer services approximately 0.4 mile from the intersection of Greenville Road and Tesla Road, north along Greenville Road to the Martinelli Center (Figure 2). The project would be located primarily within the paved right-of-way (ROW), with no ground disturbance proposed in adjacent agricultural or natural areas. The alignment crosses one bridge over Arroyo Seco, which is an ephemeral stream that flows in an east-west direction. Based on the proposed depth of the pipeline connection at Greenville Road and Tesla Road (15 to 18 feet below ground surface, according to the certified SEIR), the project may need to attach the pipeline to the bridge or install the pipeline beneath the ephemeral stream.

The project would also require a sewer lateral connection from Greenville Road to the existing Martinelli Center buildings. This lateral connection is anticipated to be placed within existing disturbed and/or paved areas within the Martinelli Center parcel. A lift station would be constructed at the Martinelli Center to pump wastewater from the building to Greenville Road, which is needed due to the topography of the site in relation to the road.

Figure 1 Regional Location Map

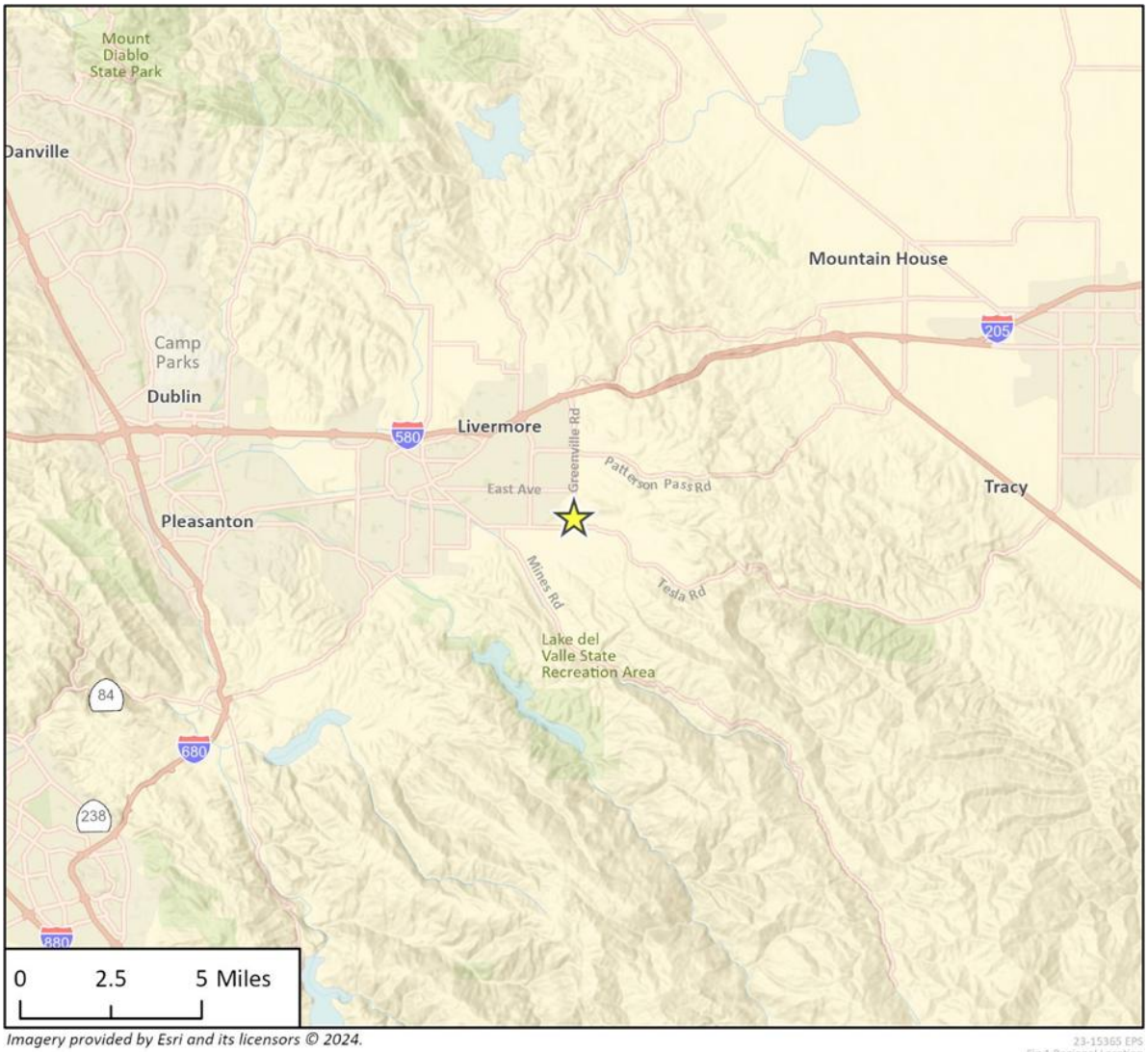


Figure 2 Project Location



Imagery provided by Microsoft Bing and its licensors © 2025.
Additional data provided by NHD, 2024.

23-15365 BIO
Fig 2 Project Location

Martinelli Center Modifications

Project plans have not been finalized; therefore, for the purposes of providing a conservative analysis, this BRA evaluates development that may be indirectly facilitated by the sewer line expansion work as part of the project, specifically modifications to the Martinelli Center. While the County is considering several options for future uses at the Martinelli Center, the analysis described herein is based on the most intensive use that could be feasible for the property. Changes to uses of the Martinelli Center could include:

- The continuation of the event center functions, including weddings and other social events on weekends, and business and civic events during the week; and
- Conversion of the existing office space into a wine country visitor hub, including activities such as wine tastings and wine trolley tours leaving from the Martinelli Center.

Physical modifications to the Martinelli Center could include:

- An upgrade to the existing kitchen facilities, including the installation of grease traps and equipment modernization;
- Conversion of some portion of the existing office space (up to 7,300 square feet) to a visitor center; and
- Construction of additional on-site parking (up to 140 added spaces).

These modifications would occur on the existing 8.56-acre parcel where the Martinelli Center is located, with the exception of the expanded parking area, which may be constructed within the southernmost portion of APN 99A-1602-5-3, immediately north of the Martinelli Center parcel.

Construction

Construction of the pipeline within Greenville Road is expected to begin in Spring 2026. It is anticipated that pipeline would be constructed at a rate of approximately 150 linear feet per day, within a 20-foot wide work area. Once completed, construction of improvements to the Martinelli Center would commence, including the sewer lateral connection, removal of the septic system, kitchen upgrade improvements, and office to visitor center conversion. Construction activities would occur between 7:00 a.m. and 3:00 p.m. on weekdays.

The existing septic tank at the Martinelli Center would be removed entirely, once the proposed sewer lateral from Greenville Road to the Martinelli Center buildings is constructed and operational. A total of 760 cubic yards of excavation would be necessary, some of which would be used as backfill along with 920 cubic yards of imported fill. The maximum depth of excavation is anticipated to be 18 feet for the Greenville Road pipeline, and 6 feet for the Martinelli Center modifications.

Construction staging for the Greenville Road pipeline would occur within the identified project boundary and County right-of-way. Laydown yards may be located on adjacent parcels, subject to agreements with the associated landowner(s).

1.3 Regulatory Summary

Sensitive biological resources analyzed herein include special-status plant and wildlife species, nesting birds, sensitive vegetation communities, potentially jurisdictional waters and wetlands, wildlife movement corridors, regionally protected resources (e.g., resources included in County-wide Habitat Conservation Plans [HCPs] and Natural Community Conservation Plans [NCCPs]), and

locally protected resources, such as protected trees. Regulatory authority over biological resources is shared by Federal, State, and local authorities. Primary authority for regulation of general biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, Alameda County).

1.3.1 Definition of Special-status Species

For the purposes of this report, special-status species include:

- Species listed as threatened or endangered under the Federal Endangered Species Act (ESA), including proposed and candidate species
- Species listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA)
- Species designated as Fully Protected by the California Fish and Game Code (CFGC), and Species of Special Concern or Watch List by the California Department of Fish and Wildlife (CDFW)
- Plant species included in the Native Plant Protection Act (NPPA), listed as State Rare (SR)
- California Native Plant Society (CNPS) California Rare Plant Ranks (CRPR) 1A, 1B, 2A and 2B
- Species designated as locally important by the Local Agency and/or otherwise protected through ordinance, local policy, or HCPs/NCCPs

1.3.2 Environmental Statutes

For the purpose of this report, potential impacts to biological resources were analyzed based on the following statutes (Appendix A):

- CEQA
- Federal Endangered Species Act
- California Endangered Species Act
- Federal Clean Water Act (CWA)
- California Fish and Game Code
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act
- NEPA
- East Alameda County Conservation Strategy (EACCS)
- East County Area Plan
- Alameda County Municipal Code

1.3.3 Guidelines for Determining CEQA Significance

The following threshold criteria, as defined by the CEQA Guidelines Appendix G Initial Study Checklist, were used to evaluate potential environmental effects. Based on these criteria, the proposed project would have a significant effect on biological resources if it would:

a) *Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;*

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US 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; or

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.

1.3.4 Guidelines for Determining NEPA Significance

NEPA provides an interdisciplinary framework for environmental planning by federal agencies and contains action-forcing procedures to ensure that federal agency decision makers take environmental factors into account. NEPA applies whenever a federal agency proposes an action, grants a permit, or agrees to fund or otherwise authorize any other entity to undertake an action that could possibly affect environmental resources. The United States Environmental Protection Agency (USEPA) is the lead agency under NEPA.

2 Methodology

2.1 Area of Potential Effects

The Area of Potential Effects (APE) generally depicts areas expected to be affected by the proposed project, including construction staging areas and access roads. As such, the APE analyzed herein is comprised of the footprint of the project components and a 50-foot buffer around those features in order to capture potential direct and indirect impacts to biological resources (Figure 2).

2.2 Literature Review

Rincon conducted a literature review to characterize the extent of potential biological resources in and adjacent to the APE. The literature review included an evaluation of current and historical aerial photographs of the site (Google Earth 2024), regional and site-specific topographic maps, and climate data.

Queries of the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation database (IPaC; USFWS 2024a), CDFW California Natural Diversity Database (CNDDB; 2024a), and CNPS online Inventory of Rare and Endangered Plants of California (2024a) were conducted to obtain comprehensive information regarding state and federally listed species and other special-status species considered to have potential to occur within the *Altamont* USGS 7.5-minute topographic quadrangle and the surrounding eight quadrangles (*Tassajara, Byron Hot Springs, Clifton Court Forebay, Livermore, Midway, La Costa Valley, Mendenhall Springs*, and *Cedar Mtn.*). The results of the database queries and lists of special-status species were reviewed by Rincon"s regional biological experts for accuracy and completeness. The final list of special-status biological resources (species and sensitive natural communities) was evaluated based on documented occurrences within the nine-quadrangle search area and biologists" expert opinions on species known to occur in the region. The results of the evaluation and a justification for each are compiled in a table and presented in Appendix D.

The following databases were also reviewed to obtain additional information on existing conditions relating to biological resources within the APE:

- United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA, NRCS 2024a)
- USFWS National Wetlands Inventory (NWI; USFWS 2024b)
- USFWS Critical Habitat Portal (USFWS 2024c)
- CDFW Biogeographic Information and Observation System (CDFW 2024b)
- CDFW Sensitive Natural Communities List (CDFW 2023)
- CDFW California Wildlife Habitat Relationships (CWHR)

The vegetation community characterizations for this analysis were based on the classification systems presented in *A Manual of California Vegetation* (MCV), *Online Edition* (CNPS 2024b).

The potential for wildlife movement corridors was evaluated based on the California Essential Habitat Connectivity project commissioned by the California Department of Transportation and CDFW (Spencer et al. 2010).

2.3 Field Reconnaissance Survey

A reconnaissance-level field survey was conducted to assess habitat suitability for special-status species with potential to occur, map vegetation communities and landcover types, document and map the presence of any sensitive biological resources, identify potential jurisdictional waters or wetlands, and record observations of plant and wildlife species within the APE. Rincon biologist Samantha Kehr conducted the field survey on November 6, 2024, and February 12, 2025. During the November 6, 2024 site visit, the temperature was 67 degrees Fahrenheit (°F) with clear skies, with wind speed of 3 miles per hour. During the February 12, 2025 site visit, the temperature was 50 °F with clear skies, with wind speed of 10 miles per hour. The field survey was conducted on foot, where accessible, to record all biological resources encountered in the APE. During the survey, existing site conditions were documented to evaluate the potential for special-status plant and animal species, sensitive plant communities, and habitat for nesting birds protected by federal and state laws. Appendix B includes photographs taken during the field survey, and an inventory of all plant and animal species observed was compiled in Appendix C. In addition, an evaluation of potentially jurisdictional aquatic features was conducted during the survey; however, a formal wetland delineation was not performed.

2.4 Impact Evaluation

Impacts are defined as project-related activities that destroy, damage, alter, or otherwise adversely affect biological resources. This may include injury or mortality to plant or wildlife species, effects on an animal's behavior (such as through harassment or frightening of an animal by construction noise), as well as the loss, modification, or disturbance of natural resources or habitats. Impacts are defined as either direct or indirect, and either permanent or temporary.

Direct impacts are generally those that occur during project implementation and at the same time and location as the cause of the impact. Direct impacts may include injury, death, and/or harassment of special-status wildlife species, if present in the work areas or vicinity. Direct impacts may also include the destruction of habitat necessary for special-status species breeding, feeding, or sheltering. Direct impacts to plants can include crushing or removal of plants, bulbs, or seeds, where present in the impact areas.

Indirect impacts are those that are reasonably foreseeable and caused by project activities but occur later in time and/or potentially at locations of some distance from the source of the impact. Specific examples include soil compaction that, in the future, following completion of the project, prevents wildlife from digging burrows and/or allows weedy plant species to thrive and outcompete native plants.

Permanent impacts are those that result in the long-term or irreversible loss of biological resources. For example, construction of new buildings and paved areas over natural habitats which may result in the loss of native vegetation and habitat for special-status wildlife would constitute a permanent impact.

Temporary impacts to biological resources are those that only occur during the construction period, with or without implementation of avoidance measures, but that would return to pre-project conditions once the project is complete. An example of a temporary impact is the generation of fugitive dust and noise from heavy equipment during construction.

3 Existing Conditions

3.1 Physical Characteristics

3.1.1 Climate, Topography, and Geography

The APE is located at the eastern edge of the Livermore-Amador Valley, within the Diablo-Hamilton Range. The APE is characterized by gentle slopes in the northern portion and along the north bank of Arroyo Seco, but is largely composed of more level, open areas along the valley floor. Elevations in the APE range from approximately 700 to 780 feet above mean sea level. The climate in this region is generally characterized as a mild, Mediterranean climate with an annual minimum average temperature of 45.6 degrees Fahrenheit (°F), a maximum average temperature of 73.2 °F, and an average annual precipitation of 14.18 inches (WRCC 2024).

3.1.2 Watershed and Drainages

The APE is located within the Arroyo Seco (HUC 180500040201) and Upper Arroyo Mocho (HUC 180500040301) subwatersheds (USGS 2024). The NWI depicts Arroyo Seco and the South Bay Aqueduct as riverine features (USFWS 2024d). The South Bay Aqueduct largely isolates the APE from lower elevation waters within these watersheds that flow from the Altamont hills to the east; however, Arroyo Seco crosses underneath the aqueduct just west of the APE. The NWI and National Hydrography Dataset also depict ponds and seasonal wetlands in the vicinity of the APE (USGS 2024).

3.1.3 Soils

The USDA, NRCS Web Soil Survey delineates six soil map units within the APE (USDA, NRCS 2024a):

- Azule clay loam, 3 to 30 percent slopes
- Pleasanton gravelly loam, 0 to 3 percent slopes
- Positas gravelly loam, 2 to 20 percent slopes, erode
- Positas gravelly loam, 20 to 40 percent slopes, erode
- Riverwash
- Zamora silt loam, 0 to 4 percent slopes

Of these, only the Riverwash soil map unit is included on the National Hydric Soils List for the Alameda Area, soil survey area, which lists soils that are permanently or seasonally saturated (USDA, NRCS 2024b).

3.2 Vegetation Communities and Land Cover Types

Three vegetation communities and five land cover types were observed within the APE and are described in more detail below (Figure 2). Vegetation communities are defined based on the classification system presented in the MCV Online Edition (CNPS 2024b), and Preliminary Description of Terrestrial Natural Communities of California (Holland 1986), but have been modified

Figure 3 Vegetation Communities, Land Cover Types, and Aquatic Habitats



Imagery provided by Microsoft Bing and its licensors © 2025.
Additional data provided by NHD, 2024.

23-15365 BIO
Fig 3 Vegetation Communities and Land Cover

slightly or expanded to reflect existing site conditions accurately. The CDFW CWHR database was also referenced for describing the habitat types within the APE (Mayer and Laudenslayer 1988). Plant species nomenclature and taxonomy used for these descriptions follow the treatments within the second edition of *The Jepson Manual* (Baldwin et al. 2012).

Brief descriptions of the natural vegetation communities and other land cover types present in the APE are provided below. Appendix C provides a complete list of plant species observed during the field reconnaissance surveys.

Annual Grassland

This vegetation community most closely resembles the *Avena* spp. - *Bromus* spp. Herbaceous Semi-Natural Alliance in the MCV Online Edition. Species composition in this community is highly variable and may contain occasional native or ornamental trees and shrubs; however, non-native grasses are dominant, including wild oats (*Avena* spp.) and ripgut brome (*Bromus diandrus*). Some weedy species were also observed in this community, including English plantain (*Plantago lanceolata*), black mustard (*Brassica nigra*), and milk thistle (*Silybum marianum*). This community has historically been used for grazing. The EACCS defines this community as California annual grassland, which corresponds to Annual grassland in the CWHR.

Fremont Cottonwood Riparian

This vegetation community occurs along the banks of Arroyo Seco, at the eastern edge of the APE, and is dominated by Fremont cottonwood (*Populus fremontii*), with some valley oak (*Quercus lobata*), willow (*Salix* sp.), and blue gum (*Eucalyptus globulus*). This vegetation community most closely corresponds to the Fremont cottonwood forest and woodland *Populus fremontii - Fraxinus velutina - Salix gooddingii* Forest & Woodland Alliance in the MCV Online Edition. The EACCS defines this community more broadly as mixed riparian forest and woodland, which corresponds to Valley-foothill riparian in the CWHR.

California Sagebrush

This vegetation community occurs along the west side of Greenville Road, north of Arroyo Seco, and is comprised of a stand of California sagebrush (*Artemisia californica*). This vegetation community most closely corresponds to the California sagebrush - (purple sage) scrub A*rtemisia californica* - (*Salvia leucophylla*) Shrubland Alliance in the MCV Online Edition. The EACCS defines this community more broadly as Northern coastal scrub/Diablan sage scrub, which corresponds to Coastal scrub in the CWHR.

Ruderal

This land cover type consists of areas that have been heavily disturbed or altered such that natural vegetation has largely been removed. These sites do not correspond well with the MCV Online Edition classification system, but is included in the EACCS. Within the APE, ruderal land cover occurs along the roadsides and along the edges of Arroyo Seco where regular vegetation removal occurs during maintenance of the neighboring vineyard. Ruderal land cover includes species such as mustard (*Brassica* sp.), milk thistle (*Silybum marianum*), and fennel (*Foeniculum vulgare*), as well as some tobacco tree (*Nicotiana glauca*).

Landscaped

This land cover type is not naturally occurring and is not described in MCV Online Edition or the EACCS classification systems. Plant species found in this land cover type typically consist of either non-native ornamental species or planted native species that do not exist as part of a natural community. This land cover type occurs at the far south end of the APE.

Vineyard

This land cover type is not naturally occurring and consists of cultivated vineyards, usually arranged in monotypic rows with supplemental irrigation. Vineyards are not classified in the MCV Online Edition classification system but are included in the EACCS.

Developed

This land cover type is not naturally occurring and is not described in the MCV Online Edition, CWHR, or the EACCS classification systems. This land cover type consists of areas that have been modified such that most or all vegetation has been removed or only small areas of landscaped or ruderal vegetation are present. Within the APE, this land cover type includes paved and gravel roads, buildings, parking lots, and driveways.

3.3 General Wildlife

Wildlife species observed within the APE during the field reconnaissance surveys included birds, reptiles, and insect species commonly found in urban or developed areas. Introduced bird species observed included rock pigeon (*Columba livia*), house sparrow (*Passer domesticus*), and European starling (*Sturnus vulgaris*). Native bird species observed included American crow (*Corvus brachyrhynchos*), turkey vulture (*Cathartes aura*), and house finch (*Haemorhous mexicanus*). Western fence lizard (*Sceloporus occidentalis*) was the only reptile species observed. A complete list of wildlife species observed during the field survey is provided in Appendix C.

4 Sensitive Biological Resources

This section discusses special-status species and sensitive biological resources observed on the project site and evaluates the potential for the project site to support additional sensitive biological resources. Assessments for the potential occurrence of special-status species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDB and other sources, species occurrence records from other sites in the vicinity of the survey area, previous reports for the project site, and the results of surveys of the project site. The potential for each special-status species to occur in the APE was evaluated according to the following criteria:

- **Not Expected.** Habitat on and adjacent to the site is clearly unsuitable for the species life history requirements (foraging, breeding, cover, soils elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable on the site if present (e.g., oak trees). Protocol surveys (if conducted) did not detect species.
- **Low Potential.** Few of the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site. Protocol surveys (if conducted) did not detect species.
- **Moderate Potential**. Some of the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- **High Potential.** All the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- **Present.** Species is observed on the site or has been recorded (e.g., CNDDB, other reports) on the site recently (within the last 10 years).

4.1 Special-Status Species

4.1.1 Special-Status Plant Species

Forty-six (46) special-status plant species known to occur in the vicinity of the project site were evaluated for their potential to occur in the APE (Appendix D). No special-status plant species were observed during the field survey; however, it was performed outside of the typical blooming period for most special-status plant species. Special-status plant species typically have specialized habitat requirements, including vegetation community types, soils, and/or elevational ranges. Based on the lack of required habitat types or features in the APE, such as coniferous forest, oak woodlands, chaparral, native grassland communities, rocky outcrops, serpentine or alkaline soils, vernal pools and other species-specific habitat requirements, and level of disturbance for landscape and agricultural activities, all 46 special-status plant species were excluded from further evaluation.

4.1.2 Special-Status Wildlife Species

Forty-six (46) special-status wildlife species known to occur in the region were evaluated for their potential to occur in the APE (Appendix D). Eight special-status wildlife species have a low potential to occur, four have a moderate potential to occur, and four have a high potential to occur in the APE (Table 1). These are discussed further below.

The remaining 30 species were excluded from further analysis based on the lack of required habitat types or features in the APE such as desert, forested, or riverine habitats, or mountainous terrain, or because the project area is outside of the species" known range. No special-status wildlife species were observed during the field survey.

Table 1 Special-status Animals with Potential to Occur in the Project Area

Common Name	Scientific Name	Status
Low Potential to Occur		
California glossy snake	*Arizona elegans occidentalis*	SSC
Crotch"s bumble bee	*Bombus crotchii*	State candidate endangered
Monarch - California overwintering population	*Danaus plexippus plexippus* pop. 1	Federal candidate
Northwestern pond turtle	*Actinemys marmorata*	Federally proposed threatened
San Joaquin coachwhip	*Masticophis flagellum ruddocki*	SSC
Tricolored blackbird	*Agelaius tricolor*	State threatened
Swainson"s hawk	*Buteo swainsoni*	State threatened
American badger	*Taxidea taxus*	SSC
Moderate Potential to Occur		
Western spadefoot	*Spea hammondii*	Federally proposed threatened
Burrowing owl	*Athene cunicularia*	SCE
White-tailed kite	*Elanus leucurus*	FP
Loggerhead shrike	*Lanius ludovicianus*	SSC
High Potential to Occur		
California tiger salamander – central California DPS	*Ambystoma californiense* Pop. 1	Federal and state threatened
California red-legged frog	*Rana draytonii*	Federally threatened
Cooper"s hawk	*Accipiter cooperii*	WL
Ferruginous hawk	*Buteo regalis*	WL

SSC = CDFW Species of Special Concern FP = State Fully Protected WL = State Watch List
SCE = State Candidate Endangered

East Alameda County Conservation Strategy Focal Species

The APE is located within the EACCS Conservation Zone-2 (CZ-2). CZ-2 encompasses largely urbanized areas of the valley floor, including the Cities of Livermore, Pleasanton, and Dublin. Conservation priorities for EACCS focal species in the CZ-2 include waters and wetland protection, California red-legged frog (*Rana draytonii*; federally threatened), burrowing owl (*Athene cunicularia*; state candidate for listing), San Joaquin kit fox (*Vulpes macrotis mutica*; federally endangered and

state threatened), San Joaquin spearscale (*Extriplex joaquinana*; CRPR 1B.2), and Congdon"s tarplant (*Centromadia parryi* ssp. *congdonii*; CRPR 1B.1).

4.1.3 Native Nesting Birds

Migratory birds protected by the MBTA and nesting birds and raptors protected under CFGC Section 3503.5 have the potential to breed and forage throughout the APE. Suitable nesting habitat includes trees, shrubs, grasses, and the ground surface.

4.2 Sensitive Natural Communities and Critical Habitat

Sensitive vegetation communities have limited distributions, high wildlife value, support sensitive species, or are particularly susceptible to disturbance. CDFW ranks sensitive communities as "threatened" or "very threatened." Currently, CDFW publishes the California Natural Community List online (CDFW 2023). Vegetation rarity ranking in that list is based on a rank calculator developed by NatureServe. According to CDFW Vegetation Program, alliances with State ranks of S1 to S3, as well as certain additional associations specifically noted as sensitive in the list, are considered imperiled, and thus, potentially of special concern.

The Fremont cottonwood forest and woodland *Populus fremontii - Fraxinus velutina - Salix gooddingii* Forest & Woodland Alliance within the APE is considered a sensitive vegetation community by CDFW (2023). However, this vegetation community would be avoided under current project plans.

4.3 Jurisdictional Waters and Wetlands

Arroyo Seco originates in the Altamont Hills southeast of the APE, and flows northwest into Arroyo Las Positas, a perennial stream, within urban development. Arryo Seco was dry at the time of the field survey, and a review of arial imagery indicates this feature is ephemeral within the APE, and likely only flows during rain events (Figure 4). West of the bridge at Greenville Road, Arroyo Seco is wide and shallow with several branching streambed channels, and annual ruderal species dominate. Near the Martinelli Center, a side channel and riparian corridor occur below the hill slope. Arroyo Seco is likely to be under the jurisdiction of the RWQCB pursuant to the Porter-Cologne Water Quality Control Act, and CDFW jurisdiction pursuant to California Fish and Game Code Section 1600.

Under the current federal regulations, only "relatively permanent" waters or wetlands, or wetlands with a "continuous surface connection" to a relatively permanent tributary are considered federally jurisdictional. Therefore, this reach of Arroyo Seco is not likely to be under United States Army Corps of Engineers (USACE) jurisdiction.

Figure 4 Potentially Jurisdictional Areas



Imagery provided by Microsoft Bing and its licensors © 2024.
Additional data provided by NHD, 2024.

23-15365 BIO
Fig 4 Jurisdictional Delineation

4.4 Wildlife Movement

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitats that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network. The California Essential Habitat Connectivity project commissioned by the California Department of Transportation and CDFW identifies "Natural Landscape Blocks" which support native biodiversity and the "Essential Connectivity Areas" which link them (Spencer et al. 2010). Natural Landscape Blocks and Essential Connectivity Areas occur in the hills to the east of the APE and south of Tesla Road, connecting open space around Mount Diablo with the coastal ranges to the south.

Arroyo Seco and the associated riparian corridor provide local scale opportunities for wildlife movement; however, the APE itself is bordered to the west by agricultural and urbanized development and the South Bay Aqueduct. Ponds and wetlands in the vicinity of the APE are used by California tiger salamander and California red-legged frog for breeding and dispersal, and Arroyo Seco could provide connectivity to these breeding areas. Agricultural use and the South Bay Aqueduct to the west of the project site may serve as potential barriers to dispersal; however, these land uses do not constitute a complete barrier to dispersal by themselves. Given the level of surrounding agricultural development and location on the edge of the developed valley floor, the APE does not provide a significant regional corridor for wildlife movement.

4.5 Resources Protected by Local Policies and Ordinances

The Alameda County Code of Ordinance Chapter 12.11 provides protection for trees in the County"s right-of-way. County code defines trees as a woody perennial plant with single or multiple trunks which typically develop a mature size of over 7 inches in diameter and 10 or more feet in height. Ornamental trees along Greenville Road include Northern California black walnut (*Juglans hindsii*), valley oak, Canary Island date palm (*Phoenix canariensis*), and Peruvian pepper tree (*Schinus molle*). Pruning or removal of protected trees would require a tree removal permit from the County.

4.6 Habitat Conservation Plans and Natural Community Conservation Plans

The APE is not located within the boundaries of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan. The EACCS identifies the project alignment as adjacent to Open Space Land Type 3 and 4, which are agricultural and public lands that may have some ecological value.

5 Impact Analysis and Mitigation Measures

This section discusses potential impacts to biological resources that may occur from implementation of the proposed project and suggests appropriate avoidance, minimization, and mitigation measures that would reduce those impacts to less-than-significant levels. The criteria used to evaluate potential project-related impacts to biological resources are summarized in Section 1.3.3, *Guidelines for Determining CEQA Significance,* and Section 1.3.4, *Guidelines for Determining NEPA Significance*.

5.1 Special-Status Species

The proposed project would have a significant effect on biological resources if it would:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

5.1.1 Special-status Plants

No federally listed or other special-status plant species were determined to have potential to occur within the APE, and none were observed during the reconnaissance survey. Therefore, no impacts to special-status plant species are anticipated due to project activities. The project would have ***no effect*** on a federally protected plant species.

5.1.2 Special-status Wildlife

Eight special-status wildlife species occur or have a moderate to high potential to occur within the APE based on known ranges, habitat preferences, species occurrence records near the APE, and presence of suitable habitat; western spadefoot, burrowing owl, white-tailed kite, loggerhead shrike, California tiger salamander, California red-legged frog, Cooper's hawk, and ferruginous hawk. Six species have a low potential to occur and therefore are not discussed further. Native nesting birds protected by the MBTA and CFGC may also be present in the APE and immediate vicinity.

Western Spadefoot

Western spadefoot, a federally proposed threatened species and CDFW Species of Special Concern, has a moderate potential to occur in the APE, primarily along Arroyo Seco and in undeveloped areas north of the Martinelli Center; however, dispersal habitat may include upland areas up to 0.38 miles away from and between aquatic features (USFWS 2023). Direct impacts to western spadefoot could occur through mortality or injury during ground disturbing activities for the sewer expansion and modifications to the Martinelli Center. Indirect impacts to western spadefoot may occur during construction in the vicinity of drainages or ponds that contain suitable aquatic habitat through degradation of water quality from potential spills or construction generated erosion if upslope of such features. Given the proximity to known breeding habitat and regional significance, impacts to this species are potentially significant. With implementation of mitigation measures BIO-1(a), 1(b), and 1(c), impacts to western spadefoot would be less than significant and the project is ***not likely to adversely affect*** western spadefoot.

California Tiger Salamander

California tiger salamander, a federal and state threatened species, and EACCS focal species, has a high potential to occur in the APE, primarily along Arroyo Seco and in undeveloped areas north of the Martinelli Center. This species can traverse upland areas up to 3.1 miles away from and between aquatic breeding habitat. There are three documented occurrences within the APE, including one within Arroyo Seco in the APE (occurrences 184, 227, and 898; CDFW 2024a), and suitable upland and aquatic habitat occurs adjacent to the project site within 3.1 miles. The closest known breeding pond is 192 feet west of the north end of the APE on the other side of the aqueduct, and closest potential breeding pond is 302 feet northeast of the north end of the APE, east of Greenville Road (Figure 3). This potential breeding pond and suitable upland habitat are connected to the APE via a culvert under Greenville Road, and additional potential breeding ponds in the immediate vicinity of Arroyo Secco and the APE (Figure 3).

Direct impacts to California tiger salamander could occur through mortality or injury during ground disturbing activities. Indirect impacts to California tiger salamander may occur during construction in the vicinity of drainages or ponds that contain suitable aquatic habitat through degradation of water quality from potential spills or construction generated erosion if upslope of such aquatic features. Direct effects to water quality would be avoided as a condition of the County building or grading permit, through use of spill prevention and erosion control BMPs and compliance with the NPDES permit as required by Alameda County Municipal Code (Section 13.08 Stormwater Management and Discharge). Development of the project would impact upland areas and potentially Arroyo Seco below top of bank if open trenching is used. Impacts to Arroyo Seco would require regulatory permitting and work would likely be restricted to the dry season, when California tiger salamanders are not likely to be present. Impacts to California tiger salamander would require consultation with CDFW and USFWS regarding incidental “take” authorizations. Impacts to California tiger salamander (Central California Distinct Population Segment) without permit authorization would constitute a violation of the federal and State Endangered Species Acts. Direct impacts to individuals during construction would be potentially significant. Implementation of mitigation measures BIO-1(a), 1(b), and 1(c) would to reduce project impacts to a less-than-significant level. However, due to the high potential for this species to occur within the APE, and potential for “take,” the project is ***likely to adversely affect*** California tiger salamander.

California Red-legged Frog

California red-legged frog, a federally threatened species, CDFW Species of Special Concern, and EACCS focal species, has a high potential to occur in the APE, primarily along Arroyo Seco and in undeveloped areas north of the Martinelli Center; however, it traverses upland areas up to one mile away from and between aquatic features. There is a known occurrence within Arroyo Seco in the APE (occurrence 786; CDFW 2024a), and suitable upland and aquatic dispersal habitat and riparian upland refugia is present.

Potential direct impacts to California red-legged frog include harassment or injury of individuals if they are present within the APE during construction. Development of the project would impact upland areas and potentially Arroyo Seco below top of bank if open trenching is used. Impacts to Arroyo Seco would require regulatory permitting and work would likely be restricted to the dry season, when California red-legged frog are less likely to be present. Additionally, direct impacts could occur within riparian and dispersal habitat in Arroyo Seco through uncontrolled spills or leaks. Direct effects to water quality would be avoided as a condition of the County building or grading permit, through use of spill prevention and erosion control BMPs and compliance with the NPDES

permit as required by Alameda County Municipal Code (Section 13.08, Stormwater Management and Discharge). Impacts to California red-legged frog would require consultation with USFWS regarding incidental "take" authorizations. Direct impacts to individuals during construction would be potentially significant. Implementation of mitigation measures BIO-1(a), 1(b), and 1(c) would reduce project impacts to a less-than-significant level. However, due to the high potential for this species to occur within the APE, and potential for "take," the project is ***likely to adversely affect*** California red-legged frog.

Burrowing Owl

Burrowing owl, a state candidate endangered and EACCS focal species, has a moderate potential to occur in the APE. The closest known occurrence is approximately 0.2 miles west of the APE (occurrence 926; CDFW 2024a), and suitable foraging habitat is present. If burrowing owls are present in disturbance areas when proposed project activities occur, the species may be directly impacted through injury or mortality of individuals resulting from collisions with project vehicles or equipment; destruction of occupied burrows and/or active nest sites; and disturbance from increased vehicle traffic, noise at work sites, and human presence that could result in an interruption of normal behaviors or nest abandonment. Direct impacts to individuals during construction would be potentially significant. Implementation of mitigation measures BIO-1(a), and 1(d) would reduce project impacts to a less-than-significant level.

Special-Status Raptors and Migratory Birds

White-tailed kite (fully protected), loggerhead shrike (California species of special concern), Cooper's hawk (watch list), and ferruginous hawk (watch list) have at least a moderate potential to occur in the APE or the project vicinity. White-tailed kite and Cooper's hawk may nest in tall trees along Arroyo Seco, and loggerhead shrike may nest in trees and shrubs the vicinity of the APE. The APE is outside the breeding range of ferruginous hawk; impacts to individuals that may forage in the vicinity of the APE are not expected, as these non-nesting individuals would be able to avoid any sources of disturbance.

Native birds protected by the CFGC and the MBTA could potentially nest in all areas of the APE. Construction activity has the potential to directly impact native birds through the destruction of nests during vegetation clearing and reduced nesting success due to disturbance from project activities; or indirectly through impacts to nesting habitat or degradation of foraging habitat from invasive plants, fugitive dust, erosion, and runoff. Direct and indirect impacts to individuals during construction would be considered potentially significant under CEQA. Implementation of mitigation measures BIO-1(a), and 1(e) would reduce project impacts to a less-than-significant level.

Mitigation Measures

BIO-1(a) Worker Environmental Awareness Program (WEAP)

Prior to initiation of construction activities (including staging and mobilization) all personnel associated with project construction will attend a Worker Environmental Awareness Program (WEAP) training, conducted by a qualified biologist, to aid workers in recognizing special-status biological resources that may occur in the construction area. This program will include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and measures required to reduce impacts to biological resources within the work area.

A fact sheet conveying this information will also be prepared for distribution to all contractors, their employers, and other personnel involved with construction. All employees will sign a form provided by the qualified biologist to document that they have attended the WEAP and understand the information presented to them. The crew foreman will be responsible for ensuring crew members adhere to the guidelines and restrictions designed to avoid impacts to special-status species. If new construction personnel are added to the project, the crew foreman will ensure that the new personnel receive the WEAP training before starting work.

BIO-1(b) Western Spadefoot, California Tiger Salamander, and California Red-legged Frog Pre-construction Surveys

No more than seven days prior to the start of any construction activities including mobilization, demolition, staging, and initial ground disturbance, a qualified biologist will conduct surveys for western spadefoot, California tiger salamander, and California red-legged frog within suitable habitat on the project site as feasible. The biologist will also oversee installation of exclusion fencing where suitable habitat is present to prevent the species from entering active work areas.

If any life stage of western spadefoot, California tiger salamander, or California red-legged frog is detected at any time throughout the duration of the project, project activities will cease, and the United States Fish and Wildlife Service (USFWS) will be notified. If the USFWS determines that adverse effects to the species or habitat cannot be avoided, the project will not commence until further guidance from the USFWS is provided. If California tiger salamander are detected the California Department of Fish and Wildlife (CDFW) will also be notified.

A report of all pre-construction survey efforts will be submitted to Alameda County within 30 days of completion of the survey effort to document compliance. The report will include the dates, times, weather conditions, and personnel involved in the surveys and monitoring.

BIO-1(c) Western Spadefoot, California Tiger Salamander, and California Red-legged Frog Avoidance and Minimization

The following mitigation measures will be implemented to reduce impacts to western spadefoot, California tiger salamander, and California red-legged frog:

- To the greatest extent possible, work activities within 100 feet of Arroyo Seco and undeveloped areas north of the Martinelli Center will be completed between May 1 and October 15 to avoid the breeding season of western spadefoot, California tiger salamander, and California red-legged frog, when activities would be most disruptive to the species.
- To the greatest extent possible, work activities below top of bank of Arroyo Seco will be completed during the dry season, between June 1 and October 15; however, construction can occur outside this window provided no flowing or ponded water associated with Arroyo Seco is present within 50 feet of any work area.
- No work will occur in undeveloped areas during a rain event (over 0.25 inch). If work resumes within 24 hours of a rain event, a qualified biologist will inspect the site again prior to resuming work.
- A qualified biologist with experience in identification of all life stages of western spadefoot, California tiger salamander, and California red-legged frog, will be present during all ground disturbing project activities within undeveloped areas north of the Martinelli Center, along Greenville Road, and within 100 feet of Aroyo Seco, and inspect all holes and trenches each morning, prior to the start of work.

- A qualified biologist will stake and flag an exclusion zone prior to activities. The exclusion zone will be fenced with orange construction zone and erosion control fencing (to be installed by construction crew). The exclusion zone will encompass the maximum practicable distance from the work site and at least 500 feet from the aquatic feature wet or dry, as feasible.
- The construction crew will be trained during the WEAP training to check beneath the staged equipment each morning prior to commencement of daily construction activities.
- If a work site is to be temporarily dewatered by pumping, the intake will be screen with wire mesh not larger than 0.2 inch to prevent any western spadefoot, California tiger salamander, and California red-legged frog not initially detected from entering the pump system.
- No monofilament plastic will be used for erosion control.
- Trenches will be backfilled as soon as possible. Open trenches will be searched each day prior to construction to ensure no wildlife are trapped. Earthen escape ramps will be installed at intervals prescribed by a qualified biologist.
- Pipes, culverts, and similar materials greater than four inches in diameter, will be stored so as to prevent wildlife from using these as temporary refuges, and these materials will be inspected each morning for the presence of animals prior to being moved.
- Grading will be restricted to the minimum area necessary.
- To ensure that diseases are not conveyed between work sites the biologist(s) will adhere to the following fieldwork practices:
    - Remove mud, snails, algae, and other debris from boots, vehicle tires, and all other equipment. Rinse cleaned items with sterilized (e.g., boiled or treated) water before leaving each work site.
    - Boots, nets, traps, and other types of equipment used in the aquatic environment should then be scrubbed with 70 percent ethanol solution and rinsed clean with sterilized water between study sites. Avoid cleaning equipment in the immediate vicinity of a pond, wetland, or riparian area.
    - Used cleaning materials and fluids will be disposed of safely and, if necessary, taken back to the lab for proper disposal.

BIO-1(d) Burrowing Owl Impact Avoidance and Minimization

Prior to project activities, a qualified biologist will conduct a habitat assessment to determine if potential habitat for burrowing owl is present in or near the project area. If potential habitat is present in or within 500 feet of the project area, a qualified biologist will conduct a pre-construction survey of the project area (plus a 500-foot buffer as access allows) for the presence of burrowing owl. The survey will be conducted no more than 14 days prior to ground disturbing activities and will conform to CDFW guidelines for burrowing owl survey protocol outlined in Appendix D of the 2012 CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). A report of all pre-construction survey efforts and results will be submitted to the County within 30 days of completion of the survey. The report will include the dates, times, weather conditions, and personnel involved in the survey. Depending on survey results, the report will also include observations of burrowing owl or potential burrows, the location and habitat description of the observations. If burrowing owl, active burrows, or their sign (i.e., tracks or pellets) are not observed in the project area, no additional measures related to impact avoidance and minimization of the absent species are recommended. If burrowing owl, active burrows, or their sign are observed in the project area, the following measures will be implemented:

- A qualified biological monitor will be present on-site to document burrowing owl observations, burrow statuses, and ensure that construction activities do not negatively affect burrowing owl. The duration and frequency of monitoring will be determined at the discretion of the qualified biologist and a monitoring report detailing monitoring results will be submitted to the County within 30 days of the completion of project activities or breeding season (February 1 to August 31), if applicable.
- If an active nest is identified near a proposed work area work will be conducted outside of the nesting season (September 1 to January 31).
- If an active nest is identified near a proposed work area and work cannot be conducted outside of the nesting season, a no-activity zone will be established by a qualified biologist. The no-activity zone will be large enough to avoid nest abandonment and will at a minimum be a 656-foot (200-meter) radius from the nest.
- If burrowing owls are present at the site during the non-breeding period, a qualified biologist will establish a no-activity zone of at least 328 feet (100 meters).
- If an effective no-activity zone cannot be established in either case, an experienced burrowing owl biologist will develop a site-specific plan (i.e., a plan that considers the type and extent of the proposed activity, the duration and timing of the activity, the sensitivity and habituation of the owls, and the dissimilarity of the proposed activity with background activities) to minimize the potential to affect the reproductive success of the owls.
- If active burrow avoidance is infeasible during the non-breeding season or during the breeding season, where resident owls have not yet begun egg laying or incubation, or where the juveniles are foraging independently and capable of independent survival, a qualified biologist will implement a passive relocation program consistent with Appendix E of the 2012 CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) and in consultation with CDFW.
- A habitat mitigation plan will be developed in coordination with the County and CDFW for loss of active burrowing owl burrow sites if implementation of a passive relocation plan is necessary and/or burrowing owl are documented to nest on site or within 500 feet of the project area. This would be based upon the portion of the project that overlaps with the primary foraging area around the burrow site (approximately 500-foot buffer) to be replaced a minimum 1:1 ratio.

BIO-1(e) Pre-construction Surveys for Nesting Birds and Raptors

If construction is scheduled to commence during the non-breeding season (September 1 to January 31), no pre-construction surveys or additional measures for nesting birds or other raptors would be required. Prior to ground disturbing and vegetation removal activities that are initiated during the breeding season (February 1 to August 31) a qualified wildlife biologist should conduct pre-construction surveys of all potential nesting habitats within the project area. The raptor survey should focus on potential nest sites (e.g., large trees and shrubs) within 500-feet of the site for raptors. Nesting bird surveys should be conducted within 14 days of the start of ground-disturbing or vegetation removal activities. Surveys need not be conducted for the entire project area at one time, and may be conducted in phases consistent with construction activity schedules. The surveying biologist must be qualified to determine the status and stage of nesting by migratory birds and all locally breeding raptor species without causing intrusive disturbance.

If active nests are found, a suitable no-work buffer should be established around active nests. Buffers should be determined by a qualified biologist and be established based on the species and nest location, to allow for known species" behavior and environmental factors (e.g., line of sight to

nest) when establishing avoidance buffers. Standard buffers are typically 200 to 500 feet for common raptors and 30 to 50 feet for most common passerines. No access into buffer areas should be allowed until a qualified biologist has determined that the nestlings have fledged and are no longer reliant on the nest or the nest has become otherwise inactive (e.g., depredation). Encroachment into the buffer may occur at the discretion of a qualified biologist and with the appropriate biological monitoring; however, for State-listed species, CDFW should be consulted for approval of buffer encroachment or reduction.

5.2 Sensitive Natural Communities and Critical Habitat

The proposed project would have a significant effect on biological resources if it would:

b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.

The Fremont cottonwood riparian area within the APE is considered a sensitive vegetation community by CDFW; however, no project elements are proposed within the riparian corridor adjacent to the project site. Direct impacts to this community could occur if construction equipment, debris, or spills inadvertently enter the riparian area. However, direct effects to water quality would be avoided as a condition of the County building or grading permit, through use of spill prevention and erosion control BMPs and compliance with the NPDES permit as required by Alameda County Municipal Code (Section 13.08 Stormwater Management and Discharge). With implementation of these conditions and mitigation measures BIO-1(a) and 1(c), impacts to sensitive natural communities would be less than significant.

5.3 Jurisdictional Waters and Wetlands

The proposed project would have a significant effect on biological resources if it would:

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.

Arroyo Seco is comprised of ruderal vegetation and bare streambed within the APE at the Greenville Road bridge. No riparian habitat is present adjacent to the bridge.

The sewer expansion would involve attaching a pipeline to the bridge or installing the pipeline beneath Arroyo Seco. Installation of the pipeline beneath Arroyo Seco may be accomplished through open trenching or jack-and-bore drilling. Direct effects to water quality would be avoided as a condition of the County building or grading permit, through use of spill prevention and erosion control BMPs and compliance with the NPDES permit as required by Alameda County Municipal Code (Section 13.08, Stormwater Management and Discharge). The project would also require a permit for development within a watercourse setback (20 feet from top of bank) under the County Public Works Agency Watercourse Protection Ordinance (Chapter 13-12), which is enacted to safeguard and preserve watercourses, control erosion and sedimentation, restrict discharge of polluted materials and enhance beneficial uses of watercourses. Additionally, if open trench or jack-and-bore construction methods are used, regulatory permitting conditions would require Arroyo Seco to be restored to its original condition following installation of the pipeline. Therefore, the project would not result in permanent impacts or substantial adverse effects to jurisdictional areas,

but would require authorization from RWQCB and CDFW in the form of a Water Quality Certification and Streambed Alteration Agreement. With implementation of the NPDES stormwater requirements, restoration of temporary impacts to Arroyo Seco, and mitigation measures BIO-1(a) and BIO-2(a), impacts would be reduced to less than significant.

Mitigation Measures

BIO-2(a) Arroyo Seco Restoration

Temporary Impacts to Arroyo Seco will be mitigated at a minimum ratio of 1:1 (acres of habitat restored to acres impacted). Upon final project design, a County-approved biologist will determine the final impacts to waters and the subsequent amount of acreage needed for restoration for the project. Restoration will occur within the APE, and the site will be fully restored to pre-project conditions.

5.4 Wildlife Movement

The proposed project would have a significant effect on biological resources if it would:

d) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.

The APE provides opportunities for local movement, but does not represent a significant corridor for regional wildlife movement, the project would not result in new barriers for movement along Arroyo Seco, and large areas of open space occur to the east along the Diablo Range. Therefore, the project is not likely to interfere substantially with the movement of wildlife species, and impacts to wildlife movement would be less than significant.

5.5 Resources Protected by Local Policies and Ordinances

The proposed project would have a significant effect on biological resources if it would:

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

Pruning or removal of trees in the County"s right-of way, over 7 inches in diameter and 10 or more feet in height, would require a tree removal permit from the County; however, no protected trees are proposed for removal under current project plans.

The East County Area Plan includes goals and policies to preserve a variety of plant communities and wildlife habitat, including Policy 125: to encourage preservation of areas known to support special-status species, and Policy 126: to encourage no net loss of riparian and seasonal wetlands. Impacts to special-status species and Arroyo Seco due to development of the project would be potentially significant; however, with implementation of mitigation measures BIO-1(a) through 1(d) and BIO-2(a), impacts to protected resources would be less than significant.

5.6 Habitat Conservation Plans

The proposed project would have a significant effect on biological resources if it would:

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.

The EACCS is not an adopted habitat conservation plan or natural community conservation plan, but is intended to provide guidance and recommendations to address species impacts for the purpose of project permitting under the federal and State Endangered Species Acts. Consistent with the EACCS, the project would not directly convert parcels adjacent to the APE to a different land use and would serve development on adjacent parcels consistent with the EACCS. Additionally, Mitigation Measures BIO-1(a), 1(b), 1(c), and 1(d) incorporate species-specific Avoidance and Minimization Measures identified in the EACCS. Therefore, the proposed project would not conflict with any HCP, NCCP, or NCCP.

6 Limitations, Assumptions, and Use Reliance

This Biological Resources Assessment has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. Reconnaissance biological surveys for certain taxa may have been conducted as part of this assessment but were not performed during a particular blooming period, nesting period, or particular portion of the season when positive identification would be expected if present, and therefore, cannot be considered definitive. The biological surveys are limited also by the environmental conditions present at the time of the surveys. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the site. In particular, mobile wildlife species could occupy the site on a transient basis, or re-establish populations in the future. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, jurisdictional areas, review of CNDDB RareFind5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDB, may vary with regard to accuracy and completeness. In particular, the CNDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

7 References

Baldwin, B.G. (Ed.), D.H. Goldman (Ed.), D. J. Keil (Ed.), R. Patterson (Ed.), T. J. Rosatti (Ed.), D. H. Wilken (Ed.). 2012. The Jepson Manual: Vascular Plants of California, Second Edition, Thoroughly Revised and Expanded. University of California Press. Berkeley, California.

California Department of Fish and Wildlife (CDFW). 2023. California Sensitive Natural Communities List. Thursday, June 1, 2023.

_____. 2024a. California Natural Diversity Database, Rarefind V. Accessed November 2024.

_____. 2024b. Biogeographic Information and Observation System (BIOS). www.wildlife.ca.gov/data/BIOS (accessed November 2024).

California Native Plant Society. 2024a. Inventory of Rare and Endangered Plants. online edition, v9.5.1. www.rareplants.cnps.org (accessed November 2024).

_____. 2024b. A Manual of California Vegetation, Online Edition. http://www.cnps.org/cnps/vegetation/ (accessed November 2024).

Google Earth. 2024. Google Earth Pro, V 7.3.6.9796. Microsoft

United States Department of Agricultural, Natural Resources Conservation Service (USDA, NRCS). 2024a. Web Soil Survey. Soil Survey Area: Alameda Area, California. Soil Survey Data: Version 18, September 9, 202024. https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm (accessed November 2024).

_____. 2024b. Lists of Hydric Soils. National Cooperative Soil Survey, U.S. Department of Agriculture. https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/.

United States Fish and Wildlife Service (USFWS). 2023. Species Status Assessment Report for Western Spadefoot (*Spea hammondii*) Version 1.1. May 2023. U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, Sacramento, California.

_____. 2024a. Information for Planning and Consultation online project planning tool. https://ipac.ecosphere.fws.gov/ (accessed November 2024).

_____. 2024b. Critical Habitat Portal. https://ecos.fws.gov/ecp/report/table/critical-habitat.html (accessed November 2024).

_____. 2024c. National Wetlands Inventory. https://www.fws.gov/program/national-wetlands-inventory (accessed November 2024).

United States Geologic Survey (USGS). 2024. National Hydrography Dataset (NHD). https://www.usgs.gov/core-science-systems/ngp/national-hydrography (accessed November 2024).

Western Regional Climate Center (WRCC). 2016. Western U.S. Climate Historical Summaries, Weather Station: Livermore, California (044997). Climate of California. https://wrcc.dri.edu/ (accessed December 2024).

The Xerces Society, Wildlife Preservation Canada, York University, University of Ottawa, The Montreal Insectarium, The London Natural History Museum, BeeSpotter. 2024. Data accessed from Bumble Bee Watch, a collaborative website to track and conserve North America"s bumble bees. http://www.bumblebeewatch.org/app/#/bees/lists (accessed January 2025).

Zeiner, D., W.F. Laudenslayer, Jr., and K.E. Mayer. 1988. California"s Wildlife. California Statewide Wildlife Habitat Relationship System, Volumes I, II, & III. California Department of Fish and Wildlife. May 1988.

8 List of Preparers

Rincon Consultants, Inc.

Primary Author

- Samantha Kehr, Senior Biologist

Technical Review

- Lisa Achter, Senior Biologist
- Susan Dewar, Principal

Graphics

- Kaylee Herbold, GIS Analyst

Field Reconnaissance Survey

- Samantha Kehr, Senior Biologist

Appendix A

Regulatory Setting

Regulatory Setting

The following is a summary of the regulatory context under which biological resources are managed at the federal, state, and local levels. A number of federal and state statutes provide a regulatory structure that guides the protection of biological resources. Agencies with the responsibility for protection of biological resources within the project site include the following:

- U.S. Army Corps of Engineers (wetlands and other waters of the United States)
- U.S. Fish and Wildlife Service (federally listed species and migratory birds)
- National Marine Fisheries Service (marine wildlife and anadromous fishes)
- San Francisco Bay Regional Water Quality Control Board (waters of the State)
- California Department Fish and Wildlife (riparian areas, streambeds, and lakes; state-listed species; nesting birds, marine resources)
- Alameda County

United States Army Corps of Engineers

The United States Army Corps of Engineers (USACE) is responsible for administering several federal programs related to ensuring the quality and navigability of the nation”s waters.

Clean Water Act Section 404

Congress enacted the Clean Water Act (CWA) “to restore and maintain the chemical, physical, and biological integrity of the Nation”s waters.” Section 404 of the CWA authorizes the Secretary of the Army, acting through the USACE, to issue permits regulating the discharge of dredged or fill materials into the "navigable waters at specified disposal sites."

Section 502 of the CWA further defines "navigable waters" as “waters of the United States, including the territorial seas.” “Waters of the United States” are broadly defined at 33 CFR Part 328.3 to include navigable waters, perennial and intermittent streams, lakes, rivers, ponds, as well as wetlands, marshes, and wet meadows. In recent years, the USACE and United States Environmental Protection Agency (USEPA) have undertaken several efforts to modernize their regulations defining “waters of the United States” (e.g., the 2015 Clean Water Rule and 2020 Navigable Waters Protection Rule), but these efforts have been frustrated by legal challenges which have invalidated the updated regulations. Thus, the agencies” longstanding definition of “waters of the United States,” which dates from 1986, remains in effect albeit with supplemental guidance interpreting applicable court decisions as described below.

Waters of the U.S.

In summary, USACE and USEPA regulations define “waters of the United States” as follows:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;

3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
   i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
   ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
   iii. Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States;
5. Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;
6. The territorial sea;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in items 1-6 above.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area"s status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the USEPA.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA are not waters of the United States.

The lateral limits of USACE jurisdiction in non-tidal waters is defined by the "ordinary high-water mark" (OHWM) unless adjacent wetlands are present. The OHWM is a line on the shore or edge of a channel established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed upon the bank, shelving, changes in the character of soil, destruction of vegetation, or the presence of debris (33 CFR 328.3(e)). As such, waters are recognized in the field by the presence of a defined watercourse with appropriate physical and topographic features. If wetlands occur within, or adjacent to, waters of the United States, the lateral limits of USACE jurisdiction extend beyond the OHWM to the outer edge of the wetlands (33 CFR 328.4 (c)). The upstream limit of jurisdiction in the absence of adjacent wetlands is the point beyond which the OHWM is no longer perceptible (33 CFR 328.4; see also 51 FR 41217).

Wetlands

The USACE defines wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3). The USACE"s delineation procedures identify wetlands in the field based on indicators of three wetland parameters: hydrophytic vegetation, hydric soils, and wetland hydrology. The following is a discussion of each of these parameters.

Hydrophytic Vegetation

Hydrophytic vegetation dominates areas where frequency and duration of inundation or soil saturation exerts a controlling influence on the plant species present. Plant species are assigned wetland indicator status according to the probability of their occurring in wetlands. More than fifty

percent of the dominant plant species must have a wetland indicator status to meet the hydrophytic vegetation criterion. The USACE published the National Wetland Plant List (USACE 2018), which separates vascular plants into the following four basic categories based on plant species frequency of occurrence in wetlands:

- **Obligate Wetland (OBL).** Almost always occur in wetlands
- **Facultative Wetland (FACW).** Usually occur in wetlands, but occasionally found in non-wetlands
- **Facultative (FAC).** Occur in wetlands or non-wetlands
- **Facultative Upland (FACU).** Usually occur in non-wetlands, but may occur in wetlands
- **Obligate Upland (UPL).** Almost never occur in wetlands

The USACE considers OBL, FACW and FAC species to be indicators of wetlands. An area is considered to have hydrophytic vegetation when greater than 50 percent of the dominant species in each vegetative stratum (tree, shrub, and herb) fall within these categories. Any species not appearing on the United States Fish and Wildlife Service"s list is assumed to be an upland species, almost never occurring in wetlands. In addition, an area needs to contain at least 5% vegetative cover to be considered as a vegetated wetland.

Hydric Soils

Hydric soils are saturated or inundated for a sufficient duration during the growing season to develop anaerobic or reducing conditions that favor the growth and regeneration of hydrophytic vegetation. Field indicators of wetland soils include observations of ponding, inundation, saturation, dark (low chroma) soil colors, bright mottles (concentrations of oxidized minerals such as iron), gleying (indicates reducing conditions by a blue-grey color), or accumulation of organic material. Additional supporting information includes documentation of soil as hydric or reference to wet conditions in the local soils survey, both of which must be verified in the field.

Wetland Hydrology

Wetland hydrology is inundation or soil saturation with a frequency and duration long enough to cause the development of hydric soils and plant communities dominated by hydrophytic vegetation. If direct observation of wetland hydrology is not possible (as in seasonal wetlands), or records of wetland hydrology are not available (such as stream gauges), assessment of wetland hydrology is frequently supported by field indicators, such as water marks, drift lines, sediment deposits, or drainage patterns in wetlands.

Limitations on Jurisdiction based on Sackett v. USEPA Supreme Court

On May 25, 2023, the Supreme Court issued its decision on the petition from the Sacketts, a family in Idaho that was subject to a compliance order from the USEPA for backfilling their lot near Priest Lake, which the USEPA claimed contained federally regulated wetlands. The wetlands in question were adjacent to a ditch that fed a creek that ultimately drained into Priest Lake, a navigable water body. The USEPA asserted that the Sacketts had violated the law by filling the wetlands on their property without a permit. The Court"s decision addressed controversy over whether, and under what conditions, the CWA reaches navigable waters" tributaries or adjacent wetlands. The Supreme Court"s decision in Sackett provides definitive guidance to the agencies in determining the limits of their Clean Water Act authority. Prioritizing a need for clarity and regulatory certainty, the Court set forth an interpretation of Clean Water Act jurisdiction that can be applied without the need for

lengthy case-by-case evaluations. This interpretation will have the effect of reducing the Clean Water Act"s geographic reach.

The Court decided:

- "Adjacent wetlands" are WOTUS only if there is a continuous surface connection between the wetland and a navigable or relatively permanent water body, such that it is difficult to determine the boundary between the wetland and the water body. The opinion notes that "temporary interruptions to surface connection may sometimes occur because of phenomena like low tides or dry spells".
- The Significant Nexus Standard, introduced by the Court in prior decisions, is not mentioned in the Clean Water Act and should not be used. Additionally, the standard includes ecological factors whose use in determining jurisdiction is not supported by the statute.
- Although jurisdiction over tributaries was not addressed by the Court, current agency guidance relies upon the Significant Nexus Standard to establish jurisdiction over tributaries that flow infrequently. In disallowing the use of that standard the decision suggests that non-relatively permanent tributaries will be non-jurisdictional going forward, stating, "…the [Clean Water Act"s] use of "waters" encompasses only those relatively permanent, standing or continuously flowing bodies of water forming geographical features that are described in ordinary parlance as streams, oceans, rivers, and lakes."

Rivers and Harbors Act Section 10

Section 10 of the Rivers and Harbors Act of 1899 requires authorization from the USACE for the construction of any structure in or over any navigable water of the United States. Structures or work outside the limits defined for navigable waters of the United States require a Section 10 permit if the structure or work affects the course, location, or condition of the water body. The law applies to any dredging or disposal of dredged materials, excavation, filling, re-channelization, or any other modification of a navigable water of the United States, and applies to all structures and work. It further includes, without limitation, any wharf, dolphin, weir, boom breakwater, jetty, groin, bank protection (e.g., riprap, revetment, bulkhead), mooring structures such as pilings, aerial or subaqueous power transmission lines, intake or outfall pipes, permanently moored floating vessel, tunnel, artificial canal, boat ramp, aids to navigation, and any other permanent, or semi-permanent obstacle or obstruction. It is important to note that Section 10 applies only to navigable waters, and thus does not apply to work in non-navigable wetlands or tributaries. In some cases, Section 10 authorization is issued by the USACE concurrently with CWA Section 404 authorization, such as when certain Nationwide Permits are used.

Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) have jurisdiction over "waters of the State," which are defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code sec. 13050(e)). These agencies also have responsibilities for administering portions of the CWA.

Clean Water Act Section 401

Section 401 of the CWA requires an applicant requesting a federal license or permit for an activity that may result in any discharge into navigable waters (such as a Section 404 Permit) to provide state certification that the proposed activity will not violate state and federal water quality standards. In California, CWA Section 401 Water Quality Certification (Section 401 Certification) is issued by the RWQCBs and by the SWRCB for multi-region projects. The process begins when an applicant submits an application to the RWQCB and informs the USACE (or the applicable agency from which a license or permit was requested) that an application has been submitted. The USACE will then determine a "reasonable period of time" for the RWQCB to act on the application; this is typically 60 days for routine projects and longer for complex projects but may not exceed one year. When the period has elapsed, if the RWQCB has not either issued or denied the application for Section 401 Certification, the USACE may determine that Certification has been waived and issue the requested permit. If a Section 401 Certification is issued it may include binding conditions, imposed either through the Certification itself or through the requested federal license or permit.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code section 13000 et seq.), the policy of the State is as follows:

- The quality of all the waters of the State shall be protected
- All activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason
- The State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation

The Porter-Cologne Act established nine RWQCBs (based on watershed boundaries) and the SWRCB, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The SWRCB provides program guidance and oversight, allocates funds, and reviews RWQCB decisions. In addition, the SWRCB allocates rights to the use of surface water. The RWQCBs have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The SWRCB and RWQCBs have numerous nonpoint source related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

Section 13260 of the Porter-Cologne Act requires any person discharging or proposing to discharge waste that could affect the quality of waters of the State to file a Report of Waste Discharge with the appropriate RWQCB. The RWQCB may then authorize the discharge, subject to conditions, by issuing Waste Discharge Requirements (WDRs). While this requirement was historically applied primarily to outfalls and similar point source discharges, the SWRCB"s *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*, effective May 2020, make it clear that the agency will apply the Porter-Cologne Act"s requirements to discharges of dredge and fill material as well. The *Procedures* state that they are to be used in issuing CWA Section 401 Certifications and WDRs, and largely mirror the existing review requirements for CWA

Section 404 Permits and Section 401 Certifications, incorporating most elements of the USEPA"s *Section 404(b)(1) Guidelines*. Following issuance of the *Procedures*, the SWRCB produced a consolidated application form for dredge/fill discharges that can be used to obtain a CWA Section 401 Water Quality Certification, WDRs, or both.

Non-Wetland Waters of the State

The SWRCB and RWQCBs have not established regulations for field determinations of waters of the state except for wetlands currently. In many cases the RWQCBs interpret the limits of waters of the State to be bounded by the OHWM unless isolated conditions or ephemeral waters are present. However, in the absence of statewide guidance each RWQCB may interpret jurisdictional boundaries within their region and the SWRCB has encouraged applicants to confirm jurisdictional limits with their RWQCB before submitting applications. As determined by the RWQCB, waters of the State may include riparian areas or other locations outside the OHWM, leading to a larger jurisdictional area over a given water body compared to the USACE.

Wetland Waters of the State

Procedures for defining wetland waters of the State pursuant to the SWRCB"s *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* went into effect May 28, 2020. The SWRCB defines an area as wetland if, under normal circumstances:

(i) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both;

(ii) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and

(iii) the area"s vegetation is dominated by hydrophytes or the area lacks vegetation.

The SWRCB"s *Implementation Guidance for the Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State* (2020), states that waters of the U.S. and waters of the State should be delineated using the standard USACE delineation procedures, taking into consideration that the methods shall be modified only to allow for the fact that a lack of vegetation does not preclude an area from meeting the definition of a wetland.

United States Fish and Wildlife Service

The United States Fish and Wildlife Service (USFWS) implements several laws protecting the Nation's fish and wildlife resources, including the Endangered Species Act (ESA; 16 United States Code [USC] Sections 153 et seq.), the Migratory Bird Treaty Act (MBTA; 16 USC Sections 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668).

Endangered Species Act

The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the ESA. Generally, the USFWS implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadromous species. projects that would result in "take" of any threatened or endangered wildlife species, or a threatened or endangered plant species if occurring on federal land, are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat

Conservation Plan) of the ESA, depending on the involvement by the federal government in funding, authorizing, or carrying out the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. “Take” under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of the ESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

Migratory Bird Treaty Act

The MBTA of 1918 implements four international conservation treaties that the U.S. entered into with Canada in 1916, Mexico in 1936, Japan in 1972, and Russia in 1976. It is intended to ensure the sustainability of populations of all protected migratory bird species. The law has been amended with the signing of each treaty, as well as when any of the treaties were amended, such as with Mexico in 1976 and Canada in 1995. The MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the USFWS.

The list of migratory bird species protected by the law, in regulations at 50 CFR Part 10.13, is primarily based on bird families and species included in the four international treaties. A migratory bird species is included on the list if it meets one or more of the following criteria:

1. It occurs in the United States or U.S. territories as the result of natural biological or ecological processes and is currently, or was previously listed as, a species or part of a family protected by one of the four international treaties or their amendments.
2. Revised taxonomy results in it being newly split from a species that was previously on the list, and the new species occurs in the United States or U.S. territories as the result of natural biological or ecological processes.
3. New evidence exists for its natural occurrence in the United States or U.S. territories resulting from natural distributional changes and the species occurs in a protected family.

In 2004, the Migratory Bird Treaty Reform Act limited the scope of the MBTA by stating the MBTA applies only to migratory bird species that are native to the United States or U.S. territories, and that a native migratory bird species is one that is present as a result of natural biological or ecological processes. The MBTA requires the USFWS to publish a list of all nonnative, human-introduced bird species to which the MBTA does not apply, and an updated list was published in 2020. The 2020 update identifies species belonging to biological families referred to in treaties the MBTA implements but are not protected because their presence in the United States or U.S. territories is solely the result of intentional or unintentional human-assisted introductions.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits anyone, without a permit issued by the USFWS, from "taking" bald or golden eagles, including their parts (including feathers), nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

"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, 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."

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle”s return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) derives its authority from the Fish and Game Code of California and administers several State laws protecting fish and wildlife resources and the habitats upon which they depend.

California Endangered Species Act

The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 et. seq.) prohibits take of state listed threatened or endangered. Take under CESA is defined as “Hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill” (Fish and Game Code sec. 86). This definition does not prohibit indirect harm by way of habitat modification, except where such harm is the proximate cause of death of a listed species. Where incidental take would occur during construction or other lawful activities, CESA allows the CDFW to issue an Incidental Take Permit upon finding, among other requirements, that impacts to the species have been minimized and fully mitigated. Unlike the federal ESA, CESA”s protections extend to candidate species during the period (typically one year) while the California Fish and Game Commission decides whether the species warrants CESA listing.

Native Plant Protection Act

The CDFW also has authority to administer the Native Plant Protection Act (NPPA) (Fish and Game Code Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare, and prohibits the take of listed plant species. Effective in 2015, CDFW promulgated regulations (14 CCR 786.9) under the authority of the NPPA, establishing that the CESA”s permitting procedures would be applied to plants listed under the NPPA as "Rare." With this change, there is little practical difference for the regulated public between plants listed under CESA and those listed under the NPPA.

Fully Protected Species Laws

The CDFW enforces Sections 3511, 4700, 5050, and 5515 of the Fish and Game Code, which prohibit take of species designated as Fully Protected. CDFW is not allowed to issue an Incidental Take Permit for Fully Protected species; therefore, impacts to these species must be avoided. The exception is situations where a Natural Community Conservation Plan (NCCP) is in place that authorizes take of the fully protected species.

Avian Protection Laws

California Fish and Game Code sections 3503, 3503.5, and 3513 describe unlawful take, possession, or destruction of native birds, nests, and eggs. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. Section 3513 makes it a state-level offense to take any bird in violation of the federal Migratory Bird Treaty Act.

Protection of Lakes and Streambeds

California Fish and Game Code section 1602 states that it is unlawful for any person to "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake" without first notifying the California Department of Fish and Wildlife (CDFW) of that activity. Thereafter, if CDFW determines and informs the entity that the activity will not substantially adversely affect any existing fish or wildlife resources, the entity may commence the activity. If, however, CDFG determines that the activity may substantially adversely affect an existing fish or wildlife resource, the entity may be required to obtain from CDFW a Streambed Alteration Agreement (SAA), which will include reasonable measures necessary to protect the affected resource(s), before the entity may conduct the activity described in the notification. Upon receiving a complete Notification of Lake/Streambed Alteration, CDFW has 60 days to present the entity with a Draft SAA. Upon review of the Draft SAA by the applicant, any problematic terms are negotiated with CDFW and a final SAA is executed.

The CDFW has not defined the term “stream” for the purposes of implementing its regulatory program under Section 1602, and the agency has not promulgated regulations directing how jurisdictional streambeds may be identified, or how their limits should be delineated. However, four relevant sources of information offer insight as to the appropriate limits of CDFW jurisdiction as discussed below.

- **The plain language of Section 1602 of CFGC** establishes the following general concepts:
  - References “river,” “stream,” and “lake”
  - References “natural flow”
  - References “bed,” “bank,” and “channel”
- **Applicable court decisions**, in particular *Rutherford v. State of California* (188 Cal App. 3d 1276 (1987), which interpreted Section 1602”s use of “stream” to be as defined in common law. The Court indicated that a “stream” is commonly understood to:
  - Have a source and a terminus
  - Have banks and a channel
  - Convey flow at least periodically, but need not flow continuously and may at times appear outwardly dry
  - Represent the depression between the banks worn by the regular and usual flow of the water
  - Include the area between the opposing banks measured from the foot of the banks from the top of the water at its ordinary stage, including intervening sand bars
  - Include the land that is covered by the water in its ordinary low stage
  - Include lands below the OHWM

- **CDFW regulations** defining "stream" for other purposes, including sport fishing (14 CCR 1.72) and streambed alterations associated with cannabis production (14 CCR 722(c)(21)), which indicate that a stream:
  - Flows at least periodically or intermittently
  - Flows through a bed or channel having banks
  - Supports fish or aquatic life
  - Can be dry for a period of time
  - Includes watercourses where surface or subsurface flow supports or has supported riparian vegetation
- **Guidance documents**, *including A Field Guide to Lake and Streambed Alteration Agreements* (CDFG 1994) and *Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants* (Brady and Vyverberg 2013), which suggest the following:
  - A stream may flow perennially or episodically
  - A stream is defined by the course in which water currently flows, or has flowed during the historic hydrologic course regime (approximately the last 200 years)
  - Width of a stream course can reasonably be identified by physical or biological indicators
  - A stream may have one or more channels (single thread vs. compound form)
  - Features such as braided channels, low-flow channels, active channels, banks associated with secondary channels, floodplains, islands, and stream-associated vegetation, are interconnected parts of the watercourse
  - Canals, aqueducts, irrigation ditches, and other means of water conveyance can be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife
  - Biologic components of a stream may include aquatic and riparian vegetation, all aquatic wildlife including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system
  - The lateral extent of a stream can be measured in different ways depending on the particular situation and the type of fish or wildlife resource at risk

The tenets listed above, among others, are applied to establish the boundaries of streambeds in various environments. Importance of each factor may be weighted based on site-specific considerations and the applicability of the indicators to the streambed at hand.

Local Jurisdiction

East Alameda County Conservation Strategy

The EACCS was developed by federal, state, and local agencies to provide a framework to protect, enhance, and restore natural resources, such as special-status species and sensitive habitats (including wetlands and riparian habitats) in eastern Alameda County. The EACCS was designed to streamline the environmental permitting process for impacts due to development and infrastructure projects. Participants in the development of the EACCS include:

- Alameda County
- Alameda County Congestion Management Agency
- Alameda County Waste Management Authority
- Alameda County Resource Conservation District
- CDFW
- City of Dublin
- City of Livermore
- City of Pleasanton
- East Bay Regional Parks District (EBRPD)
- NRCS
- San Francisco Bay Regional Water Quality Control Board (SFRWQCB)
- Zone 7 Water Agency
- USFWS

The EACCS is intended to be a tool to inform decision-making during the project level environmental review and permitting process. The EACCS includes baseline information on existing conditions and biological resources within the EACCS study area, and includes focal species, a conservation strategy by Conservation Zone (CZ), and avoidance and mitigation measures.

The EACCS identifies 18 CZs to identify conservation actions where impacts may affect ecological function. The EACCS also identifies mitigation standards and avoidance minimization measures and mitigation ratios to offset impacts. Applicable avoidance and minimization measure, and mitigation ratios include:

General Avoidance and Minimization Measures to Reduce Effects on Focal Species

GEN-01 Employees and contractors performing construction activities will receive environmental sensitivity training. Training will include review of environmental laws and Avoidance and Minimization Measures (AMMs) that must be followed by all personnel to reduce or avoid effects on covered species during construction activities.

GEN-02 Environmental tailboard trainings will take place on an as-needed basis in the field. The environmental tailboard trainings will include a brief review of the biology of the covered species and guidelines that must be followed by all personnel to reduce or avoid negative effects to these species during construction activities. Directors, Managers, Superintendents, and the crew foremen and forewomen will be responsible for ensuring that crewmembers comply with the guidelines.

GEN-03 Contracts with contractors, construction management firms, and subcontractors will obligate all contractors to comply with these requirements, AMMs.

GEN-04 The following will not be allowed at or near work sites for covered activities: trash dumping, firearms, open fires (such as barbecues) not required by the activity, hunting, and pets (except for safety in remote locations).

GEN-05 Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas to the extent practicable.

GEN-06 Off-road vehicle travel will be minimized.

GEN-07 Vehicles will not exceed a speed limit of 15 mph on unpaved roads within natural land-cover types, or during off-road travel.

GEN-08 Vehicles or equipment will not be refueled within 100 feet of a wetland, stream, or other waterway unless a bermed and lined refueling area is constructed.

GEN-09 Vehicles shall be washed only at approved areas. No washing of vehicles shall occur at job sites.

GEN-10 To discourage the introduction and establishment of invasive plant species, seed mixtures/straw used within natural vegetation will be either rice straw or weed-free straw.

GEN-11 Pipes, culverts and similar materials greater than four inches in diameter, will be stored so as to prevent covered wildlife species from using these as temporary refuges, and these materials will be inspected each morning for the presence of animals prior to being moved.

GEN-12 Erosion control measures will be implemented to reduce sedimentation in wetland habitat occupied by covered animal and plant species when activities are the source of potential erosion problems. Plastic mono-filament netting (erosion control matting) or similar material containing netting shall not be used at the project. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.

GEN-13 Stockpiling of material will occur such that direct effects to covered species are avoided. Stockpiling of material in riparian areas will occur outside of the top of bank, and preferably outside of the outer riparian dripline and will not exceed 30 days.

GEN-14 Grading will be restricted to the minimum area necessary.

GEN-15 Prior to ground disturbing activities in sensitive habitats, project construction boundaries and access areas will be flagged and temporarily fenced during construction to reduce the potential for vehicles and equipment to stray into adjacent habitats.

GEN-16 Significant earth moving-activities will not be conducted in riparian areas within 24 hours of predicted storms or after major storms (defined as 1-inch of rain or more).

GEN-17 Trenches will be backfilled as soon as possible. Open trenches will be searched each day prior to construction to ensure no covered species are trapped. Earthen escape ramps will be installed at intervals prescribed by a qualified biologist.

Species-specific avoidance and minimization measures are determined based on the species and habitats to be affected, including, but not limited to:

Species AMM	Species	Habitat	Avoidance and Minimization Measure
INV-1	Vernal pool fairy shrimp, longhorn fairy shrimp	Vernal pools, clay flats, alkaline pools/rock outcrops/sandstone pools	▪ A qualified biological monitor will be present if work is conducted outside of designated work corridors or off of existing access roads. ▪ If vernal pools, clay flats, alkaline pools, ephemeral stock tanks, or sandstone pools, or roadside ditches are present, a qualified biologist will stake and flag an exclusion zone prior to construction activities. The exclusion zone will be fenced with orange construction zone and erosion control fencing (to be installed by construction crew). The exclusion zone will encompass

Species AMM	Species	Habitat	Avoidance and Minimization Measure
			the maximum practicable distance from the worksite and at least 250 feet from the aquatic feature wet or dry. ▪ Work will be avoided after the first significant rain until June 1, or until pools remain dry for 72 hours. ▪ No herbicide will be applied within 100 feet of exclusion zones, except when applied to cut stumps or frilled stems or injected into stems. No broadcast applications will be applied. ▪ Avoid modifying or changing the hydrology of the habitat.
MPH-1 Amphibians	California tiger salamander, California red-legged frog, Foothill yellow-legged frog	Streams, wetlands, ponds, vernal pools	▪ If aquatic habitat is present, a qualified biologist will stake and flag an exclusion zone prior to activities. The exclusion zone will be fenced with orange construction zone and erosion control fencing (to be installed by construction crew). The exclusion zone will encompass the maximum practicable distance from the work site and at least 500 feet from the aquatic feature wet or dry.
MPH-2 Amphibians	California tiger salamander, California red-legged frog, Foothill yellow-legged frog	Riparian habitat and grasslands within 2-miles of aquatic habitat.	▪ A qualified biologist will conduct preconstruction surveys prior to activities define a time for the surveys (before ground breaking). If individuals are found, work will not begin until they are moved out of the construction zone to a USFWS/CDFW approved relocation site. ▪ A Service-approved biologist should be present for initial ground disturbing activities. ▪ If the work site is within the typical dispersal distance (contact USFWS/CDFW for latest research on this distance for species of interest) of potential breeding habitat, ▪ barrier fencing will be constructed around the worksite to prevent amphibians from entering the work area. Barrier fencing will be removed within 72 hours of completion of work. ▪ No monofilament plastic will be used for erosion control. ▪ Construction personnel will inspect open trenches in the morning and evening for trapped amphibians. ▪ A qualified biologist possessing a valid FESA Section 10(a)(1)(A) permit or USFWS-approved under an active biological opinion, will be contracted to trap and to move amphibians to nearby suitable habitat if amphibians are found inside fenced area. ▪ Work will be avoided within suitable habitat from October 15 (or the first measurable fall rain of 1” or greater, to May 1.
BIRD-1	Golden eagle	Cliffs and large trees surrounded by open grassland.	▪ If an active nest is identified near a proposed work area work will be conducted outside of the nesting season (February 1 to September 1). ▪ If an active nest is identified near a proposed work area and work cannot be conducted outside of the nesting season, a no-activity zone will be established by a qualified biologist. The no-activity zone will be large

Species AMM	Species	Habitat	Avoidance and Minimization Measure
			enough to avoid nest abandonment and will at a minimum be 250-feet radius from the nest. ▪ If an effective no-activity zone cannot be established in either case, an experienced golden eagle biologist will develop a site-specific plan (i.e., a plan that considers the type and extent of the proposed activity, the duration and timing of the activity, the sensitivity and habituation of the eagles, and the dissimilarity of the proposed activity with background activities) to minimize the potential to affect the reproductive success of the eagles.
BIRD-2	Burrowing owl	Grasslands or ruderal areas with burrows	▪ If an active nest is identified near a proposed work area work will be conducted outside of the nesting season (March 15 to September 1). ▪ If an active nest is identified near a proposed work area and work cannot be conducted outside of the nesting season, a no-activity zone will be established by a qualified biologist. The no-activity zone will be large enough to avoid nest abandonment and will at a minimum be 250-feet radius from the nest. ▪ If burrowing owls are present at the site during the non-breeding period, a qualified biologist will establish a no-activity zone of at least 150 feet. ▪ If an effective no-activity zone cannot be established in either case, an experienced burrowing owl biologist will develop a site-specific plan (i.e., a plan that considers the type and extent of the proposed activity, the duration and timing of the activity, the sensitivity and habituation of the owls, and the dissimilarity of the proposed activity with background activities) to minimize the potential to affect the reproductive success of the owls.
BIRD-3	Tricolored blackbird	Wetlands, ponds with emergent vegetation	▪ If an active nest colony is identified near a proposed work area work will be conducted outside the nesting season (March 15 to September).
MAMM-1	San Joaquin kit fox, (American badger)	Grassland, generally with ground squirrel burrows	▪ If potential dens are present, their disturbance and destruction will be avoided. ▪ If potential dens are located within the proposed work area and cannot be avoided during construction, a qualified biologist will determine if the dens are occupied or were recently occupied using methodology coordinated with the USFWS and CDFW. If unoccupied, the qualified biologist will collapse these dens by hand in accordance with USFWS procedures (U.S. Fish and Wildlife Service 1999). ▪ Exclusion zones will be implemented following USFWS procedures (USFWS 1999) or the latest USFWS procedures available at the time. The radius of these zones will follow current standards or will be as follows: Potential Den—50 feet; Known Den—100 feet; Natal or Pupping Den—to be determined on a case-by-case basis in coordination with USFWS and CDFW.

Species AMM	Species	Habitat	Avoidance and Minimization Measure
			▪ Pipes will be capped and trenches will contain exit ramps to avoid direct mortality while construction areas is active.

In addition to these avoidance and minimization measures, the EACCS includes habitat acreage mitigation ratios for impacts to special-status species and sensitive habitats, which recommends replacement of impacted habitats at the following ratios:

- 9:1 to 11:1 for impacts to vernal pool fairy shrimp and longhorn fairy shrimp;
- 2.5:1 to 3.5:1 for impacts to California red-legged frog and California tiger salamander (4:1); and
- And 5:1 for impacts to San Joaquin spearscale, Big tarplant, Congdon"s tarplant, Palmate-bracted bird"s-beak, Livermore Valley tarplant, and Recurved larkspur.

Alameda County General Plan, East County Area Plan

The Alameda County East County Area Plan provides goals and policies to inform decision-makers, the general public, public agencies and those doing business in the County of the County"s position on land use-related issues and to provide guidance for day-to-day decision-making. Policies under East County Area Plan"s goal "*To preserve a variety of plant communities and wildlife habitat"* include:

- **Policy 121:** The County shall secure open space lands, through acquisition of easements or fee title, specifically for the preservation and protection of indigenous vegetation and wildlife.
- **Policy 122:** The County shall encourage that wetland mitigation be consolidated in areas that are relatively large and adjacent to or otherwise connected to open space. To the extent possible, these. areas should be included in, adjacent to, or linked through open space corridors with lands designated as "Resource Management" that are managed specifically for the preservation and enhancement of biological resources.
- **Policy 123:** Where site-specific impacts on biological resources resulting from a proposed land use outside the Urban Growth Boundary are identified, the County shall encourage that mitigation is complementary to the goals and objectives of the ECAP. To that end, the County shall recommend that mitigation efforts occur in areas designated as "Resource Management" or on lands adjacent to or otherwise contiguous with these lands in order to establish a continuous open space system in East County and to provide for long term protection of biological resources.
- **Policy 124:** The County shall encourage the maintenance of biological diversity in East County by including a variety of plant communities and animal habitats in areas designated for open space.
- **Policy 125:** The County shall encourage preservation of areas known to support special-status species.
- **Policy 126:** The County shall encourage no net loss of riparian and seasonal wetlands.
- **Policy 127:** The County shall encourage the preservation of East County"s oak woodland plant communities.
- **Policy 128:** The County shall ensure that, where quarries will be reclaimed as open space, reclamation plans are designed to restore biological value to sites through appropriate revegetation, contouring of lakes to simulate natural bodies of water, and protection or in-kind replacement of significant trees.

- **Policy 129:** The County shall protect existing riparian woodland habitat present along the Arroyo Mocho, Arroyo Del Valle, Arroyo Las Positas, Arroyo de la Laguna; and Alamo, Tassajara, and Alameda Creeks. Exceptions to these requirements shall apply for those portions of the Arroyo del Valle to be excavated for water transfer Lakes A and B under the Specific Plan for the Livermore Amador Valley Quarry Area Reclamation, which shall instead be subject to riparian habitat restoration as specified by Policies 128 and 164; and for any approved quarry operations in Regionally Significant Construction Aggregate Resource Sector C (Arroyo Mocho) or any other streambeds, which shall also be subject to habitat restoration under Policies 128 and 164, and according to applicable State Public Resources Code requirements, to the extent that proposed reclamation specifies riparian habitat as the end use.
- **Policy 130:** The County shall preserve an open space corridor connecting the Bird"s Beak Preserve with lands designated "Resource Management." This open space corridor shall vary in width between 50 and 150 feet.
- **Policy 131**: The County shall require that roadways be designed to minimize impacts to wildlife corridor and regional trails. Where appropriate, grade-separated crossings and/or other features shall be used to maintain the viability of the affected corridor.
- **Policy 132:** The County shall designate a zone of approximately 200 yards around the perimeter of the defined Bird"s Beak Preserve in North Livermore as a Special Management Area. Within this zone, all proposed land uses and project designs shall be evaluated regarding their potential to effect the viability of the Springtown valley sink scrub habitat, and mitigation shall be incorporated into the approval of detailed development plans within this 200 yard zone to avoid the impact. Mitigation may take the form of clustering development to avoid sensitive areas, management practices, land swap with the FCC Monitoring Station, or other appropriate measures.
- **Policy 133:** The County shall require that the impacts of wind turbine operations on bird populations are minimized.

Implementation Programs:

- **Program 55:** The County shall develop management guidelines for lands designated "Resource Management" for the purpose of maintaining and/or enhancing existing plant communities and wildlife habitats. The County shall identify organizations that may be suitable to manage the open space.
- **Program 56:** The County shall develop specific biological survey protocols for special-status plants and animals to be used in evaluating proposed activities within the Urban Growth Boundary, in consultation with federal and state resource agencies.
- **Program 57:** The County shall establish mitigation measures for biological resources affected by activities and development within the Urban Growth Boundary. To this end, the County shall consult with federal and state resource agencies to establish mitigation measures for specific special-status taxa identified within the Urban Growth Boundary (e.g., mitigation fees, relocation, recreation of habitat within open space).
- **Program 58:** The County shall work with federal, state, and local agencies to establish feasible mitigation for avian collisions with wind turbines. The County shall take a lead role in coordinating wind farm operators and other agencies to develop feasible mitigations.

Alameda County Code of Ordinances

Alameda County Code of Ordinance Chapter 12.11 *Regulation of Trees in County Right-of-Way* provides protection for trees in the County's right-of way. Conty code defines trees as a woody perennial plant with a single or multiple trunks which typically develop a mature size of over seven inches in diameter and ten or more feet in height. A permit is required prior to planting, maintaining, or removing of any tree in the right-of-way.

Chapter 13.12 *Watercourse Protection* requires a permit issued by the director of public works for development within a Watercourse Setback. The minimum setback requirement is 20 feet horizontally, measured from the top of the bank or if this slope is relatively steep, the daylight point where a line projected upward from the toe of bank or shore at a slope of two (2) horizontal units to one (1) vertical unit intersects the ground surface. In the event that the top of bank as determined in the foregoing manner falls a significant distance beyond the portion of the bank or shore lying below the high water mark, the top of bank point shall be determined by the director.

This page intentionally left blank.

Appendix B

Site Photographs



Photograph 1. Bare ground and annual grasslands north of the Martinelli Center within the APE, with the South Bay Aquaduct to the left, facing north.



Photograph 2. The north end of the Martinelli Center within the APE, facing east.



Photograph 3. The vineyard at the north end of the APE, facing west.



Photograph 4. Greenville Road and the entrance to the Martinelli Center within the APE, facing south.



Photograph 5. Developed areas of the Martinelli Center within the APE, facing south.



Photograph 6. Annual grassland and fremont cottonwood riparian vegetation communities along Arroyo Seco, south of the Martinelli Center within the APE, facing east.



Photograph 7. Intersection of Greenville Road and Tesla Road within the APE, facing south.



Photograph 8. Greenville Road at Arroyo Seco within the APE, facing north.



Photograph 9. Arroyo Seco east of Greenville Road within the APE, facing east.



Photograph 10. Arroyo Seco west of Greenville Road within the APE, facing west.



Photograph 11. The bridge over Arroyo Seco within the APE, facing northwest

Appendix C

Floral and Faunal Compendium

Plant Species Observed Within the Area of Potential Effects on November 6, 2024

Scientific Name	Common Name	Status	Native or Introduced
Trees			
Eucalyptus globulus	Blue gum	Cal-IPC rating: Limited	Introduced
Juglans hindsii	Northern California black walnut		Native
Phoenix canariensis	Canary island date palm	Cal-IPC rating: Limited	Introduced
Platanus ×hispanica	London plane tree		Introduced
Populus fremontii	Fremont cottonwood		Native
Quercus lobata	Valley oak		Native
Schinus molle	Peruvian pepper tree	Cal-IPC rating: Limited	Introduced
Shrubs			
Baccharis pilularis	Coyote brush		Native
Artemisia californica	California sagebrush		Native
Herbs			
Brassica nigra	Black mustard	Cal-IPC rating: Moderate	Introduced
Nicotiana glauca	Tobacco tree	Cal-IPC rating: Moderate	Introduced
Plantago lanceolata	English plantain	Cal-IPC rating: Limited	Introduced
Raphanus raphanistrum	Wild radish	Cal-IPC rating: Limited	Introduced
Grasses			
Avena spp.	Wild oats	Cal-IPC rating: Moderate	Introduced
Bromus diandrus	Ripgut brome	Cal-IPC rating: Moderate	Introduced

Cal-IPC = California Invasive Plant Council

Sources: Calflora 2024; Cal-IPC 2024

Wildlife Species Observed Within the Area of Potential Effects on November 6, 2024

Scientific Name	Common Name	Status	Native or Introduced
Reptiles			
Sceloporus occidentalis	Western fence lizard	Common	Native
Birds			
Columba livia	Rock pigeon	Invasive	Introduced
Corvus brachyrhynchos	American crow	Common	Native
Buteo jamaicensis	Red-tailed hawk	Common	Native
Haemorhous mexicanus	House finch	Common	Native
Passer domesticus	House sparrow	Invasive	Introduced
Sayornis nigricans	Black phoebe	Common	Native
Sturnus vulgaris	European starling	Invasive	Introduced

This page intentionally left blank.

Appendix D

Special-Status Species Evaluation Tables

Special-status Plant Species in the Regional Vicinity of the Project Site

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Allium sharsmithiae Sharsmith"s onion	None/None G2/S2 1B.3	Perennial bulbiferous herb. Chaparral, cismontane woodland. Rocky, serpentinite. Elevations: 1,310-3,935 feet. (400-1,200m.) Blooms Mar-May.	Not Expected	There are no known occurrences within five miles, chaparral habitats with rocky serpentine soils are not present, and the APE is outside this species elevation range.
Amsinckia grandiflora large-flowered fiddleneck	FE/SE G1/S1 1B.1	Annual herb. Cismontane woodland, valley and foothill grassland. Annual grassland in various soils. Elevations: 885-1,805ft. (270-550m.) Blooms (Mar) Apr-May.	Not Expected	There are no known occurrences within five miles, woodland habitats are not present, and the APE is outside this species elevation range.
Arctostaphylos auriculata Mt. Diablo manzanita	None/None G2/S2 1B.3	Perennial evergreen shrub. Chaparral, cismontane woodland. In canyons and on slopes, on sandstone. Elevations: 445-2,135ft. (135-650m.) Blooms Jan-Mar.	Not Expected	There are no known occurrences within five miles and chaparral habitats with sandstone slopes are not present.
Arctostaphylos manzanita ssp. *laevigata* Contra Costa manzanita	None/None G5T2/S2 1B.2	Perennial evergreen shrub. Chaparral. Rocky slopes. Elevations: 1,410-3,610ft. (430-1,100m.) Blooms Jan-Mar (Apr).	Not Expected	There are no known occurrences within five miles, chaparral habitats with rocky slopes are not present, and the APE is outside this species elevation range.
Astragalus tener var. *tener* alkali milk-vetch	None/None G2T1/S1 1B.2	Annual herb. Playas, valley and foothill grassland, vernal pools. Alkaline. Elevations: 5-195ft. (1-60m.) Blooms Mar-Jun.	Not Expected	There is one known occurrence within five miles, however, wetlands with alkaline soils are not present, this occurrence was last observed in 1958, and is possibly extirpated (occurrence 8, CDFW 2024a).
Atriplex cordulata var. *cordulata* heartscale	None/None G3T2/S2 1B.2	Annual herb. Chenopod scrub, meadows and seeps, valley and foothill grassland. Alkaline (sometimes). Elevations: 0-1,835ft. (0-560m.) Blooms Apr-Oct.	Not Expected	There are four known occurrences within five miles, however alkaline wetland habitats are not present.

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Atriplex depressa brittlescale	None/None G2/S2 1B.2	Annual herb. Chenopod scrub, meadows and seeps, playas, valley and foothill grassland, vernal pools. Alkaline, clay. Elevations: 5-1,050ft. (1-320m.) Blooms Apr-Oct.	Not Expected	There are six known occurrences within five miles, however alkaline wetland habitats are not present.
Atriplex minuscula lesser saltscale	None/None G2/S2 1B.1	Annual herb. Chenopod scrub, playas, valley and foothill grassland. Alkaline, sandy. Elevations: 50-655ft. (15-200m.) Blooms May-Oct.	Not Expected	There are eight known occurrences within five miles, however alkaline habitats are not present.
Balsamorhiza macrolepis big-scale balsamroot	None/None G2/S2 1B.2	Perennial herb. Chaparral, cismontane woodland, valley and foothill grassland. Serpentinite (sometimes). Elevations: 150-5,100ft. (45-1,555m.) Blooms Mar-Jun.	Not Expected	There is one known occurrence within five miles, however this occurrence was last observed in 1993, and is extirpated due to development (occurrence 13, CDFW 2024a)
Blepharizonia plumosa big tarplant	None/None G1G2/S1S2 1B.1	Annual herb. Valley and foothill grassland. Clay (usually). Elevations: 100-1,655ft. (30-505m.) Blooms Jul-Oct.	Not Expected	There are two known occurrences within five miles, however annual grasslands in the APE are heavily disturbed by agricultural use.
Calochortus pulchellus Mt. Diablo fairy-lantern	None/None G2/S2 1B.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. On wooded and brushy slopes. Elevations: 100-2,755ft. (30-840m.) Blooms Apr-Jun.	Not Expected	There are no known occurrences within five miles and chaparral and woodland habitats are not present.
Caulanthus lemmonii Lemmon"s jewelflower	None/None G3/S3 1B.2	Annual herb. Pinyon and juniper woodland, valley and foothill grassland. Elevations: 260-5,185ft. (80-1,580m.) Blooms Feb-May.	Not Expected	There are no known occurrences within five miles and pinyon and juniper woodland habitats are not present.
Centromadia parryi ssp. *congdonii* Congdon"s tarplant	None/None G3T2/S2 1B.1	Annual herb. Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay. Elevations: 0-755ft. (0-230m.) Blooms May-Oct (Nov).	Not Expected	There are two known occurrences within five miles, however alkaline habitats are not present and no tarplant species were observed in the APE.

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Chlorogalum pomeridianum var. *minus* dwarf soaproot	None/None G5T3/S3 1B.2	Perennial bulbiferous herb. Chaparral. Serpentine. Elevations: 1,000-3,280ft. (305-1,000m.) Blooms May-Aug.	Not Expected	There are no known occurrences within five miles, chaparral habitats with serpentine soils are not present, and the APE is outside this species elevation range.
Chloropyron molle ssp. *hispidum* hispid salty bird"s-beak	None/None G2T1/S1 1B.1	Annual herb (hemiparasitic). Meadows and seeps, playas, valley and foothill grassland. Alkaline. Elevations: 5-510ft. (1-155m.) Blooms Jun-Sep.	Not Expected	There is one known occurrence within five miles however alkaline wetland habitats are not present.
Chloropyron palmatum palmate-bracted bird"s-beak	FE/SE G1/S1 1B.1	Annual herb (hemiparasitic). Chenopod scrub, valley and foothill grassland. Alkaline. Elevations: 15-510ft. (5-155m.) Blooms May-Oct.	Not Expected	There is one known occurrence within five miles however alkaline wetland habitats are not present.
Cirsium fontinale var. *campylon* Mt. Hamilton thistle	None/None G2T2/S2 1B.2	Perennial herb. Chaparral, cismontane woodland, valley and foothill grassland. Seeps, serpentinite. Elevations: 330-2,920ft. (100-890m.) Blooms (Feb) Apr-Oct.	Not Expected	There are no known occurrences within five miles, and chaparral and woodland habitats with serpentine soils are not present.
Deinandra bacigalupii Livermore tarplant	None/SE G1/S1 1B.1	Annual herb. Meadows and seeps. Alkaline meadows. Elevations: 490-605ft. (150-185m.) Blooms Jun-Oct.	Not Expected	There are four known occurrences within five miles, however Alkaline meadows are not present.
Delphinium californicum ssp. *interius* Hospital Canyon larkspur	None/None G3T3/S3 1B.2	Perennial herb. Chaparral, cismontane woodland, coastal scrub. In wet, boggy meadows, openings in chaparral and in canyons. Elevations: 640-3,595ft. (195-1,095m.) Blooms Apr-Jun.	Not Expected	There is one known occurrence within five miles, however wet, boggy meadows are not present, this occurrence is from 1928, and the exact location is unknown (occurrence 10, CDFW 2024a).
Delphinium recurvatum recurved larkspur	None/None G2?/S2? 1B.2	Perennial herb. Chenopod scrub, cismontane woodland, valley and foothill grassland. Alkaline. Elevations: 10-2,590ft. (3-790m.) Blooms Mar-Jun.	Not Expected	There are no known occurrences within five miles, and alkaline wetland and grassland habitats are not present.

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Eryngium jepsonii Jepson"s coyote-thistle	None/None G2/S2 1B.2	Perennial herb. Valley and foothill grassland, vernal pools. Clay. Elevations: 10-985ft. (3-300m.) Blooms Apr-Aug.	Not Expected	There are no known occurrences within five miles, and wetland and grassland habitats are not present.
Eryngium spinosepalum spiny-sepaled button-celery	None/None G2/S2 1B.2	Annual/perennial herb. Valley and foothill grassland, vernal pools. Some sites on clay soil of granitic origin; vernal pools, within grassland. Elevations: 260-3,200ft. (80-975m.) Blooms Apr-Jun.	Not Expected	There are no known occurrences within five miles, and wetland and native grassland habitats are not present.
Eschscholzia rhombipetala diamond-petaled California poppy	None/None G1/S1 1B.1	Annual herb. Valley and foothill grassland. Alkaline, clay slopes and flats. Elevations: 0-3,200ft. (0-975m.) Blooms Mar-Apr.	Not Expected	There are no known occurrences within five miles, and native grassland habitats with alkaline soils are not present.
Extriplex joaquinana San Joaquin spearscale	None/None G2/S2 1B.2	Annual herb. Chenopod scrub, meadows and seeps, playas, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with *Distichlis spicata*, *Frankenia*, etc. Elevations: 5-2,740ft. (1-835m.) Blooms Apr-Oct.	Not Expected	There are 11 known occurrences within five miles, however alkaline wetland habitats are not present.
Fritillaria falcata talus fritillary	None/None G2/S2 1B.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, lower montane coniferous forest. Mostly on serpentine talus, but occasionally found on granitics. Elevations: 985-5,005ft. (300-1,525m.) Blooms Mar-May.	Not Expected	There are no known occurrences within five miles, chaparral and woodland habitats with rocky serpentine soils are not present, and the APE is outside this species elevation range.
Helianthella castanea Diablo helianthella	None/None G2/S2 1B.2	Perennial herb. Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Azonal soils, Partial shade (often), rocky (usually). Elevations: 195-4,265ft. (60-1,300m.) Blooms Mar-Jun.	Not Expected	There are no known occurrences within five miles, and chaparral and woodland habitats with rocky soils are not present.

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Hesperolinon breweri Brewer"s western flax	None/None G2/S2 1B.2	Annual herb. Chaparral, cismontane woodland, valley and foothill grassland. Often in rocky serpentine soil in serpentine chaparral and serpentine grassland. Elevations: 100-3,100ft. (30-945m.) Blooms May-Jul.	Not Expected	There are no known occurrences within five miles, and chaparral and woodland habitats with rocky serpentine soils are not present.
Hibiscus lasiocarpos var. *occidentalis* woolly rose-mallow	None/None G5T3/S3 1B.2	Perennial rhizomatous herb (emergent). Marshes and swamps. Moist, freshwater-soaked river-banks and low peat islands in sloughs; can also occur on riprap and levees. In California, known from the delta watershed. Elevations: 0-395ft. (0-120m.) Blooms Jun-Sep.	Not Expected	There are no known occurrences within five miles, and marsh, swamp, and river-bank habitats are not present.
Hoita strobilina Loma Prieta hoita	None/None G2?/S2? 1B.1	Perennial herb. Chaparral, cismontane woodland, riparian woodland. Serpentine; mesic sites. Elevations: 100-2820ft. (30-860m.) Blooms May-Jul (Aug-Oct).	Not Expected	There are no known occurrences within five miles, and chaparral and woodland habitats with rocky serpentine soils are not present.
Legenere limosa legenere	None/None G2/S2 1B.1	Annual herb. Vernal pools. In beds of vernal pools. 1-. Elevations: 5-2885ft. (1-880m.) Blooms Apr-Jun.	Not Expected	There are no known occurrences within five miles, and vernal pool habitats are not present.
Leptosyne hamiltonii Mt. Hamilton coreopsis	None/None G2/S2 1B.2	Annual herb. Cismontane woodland. On steep shale talus with open southwestern exposure. Elevations: 1,805-4,265ft. (550-1,300m.) Blooms Mar-May.	Not Expected	There are no known occurrences within five miles, woodland habitats with rocky soils are not present, and the APE is outside this species elevation range.
Lilaeopsis masonii Mason"s lilaeopsis	None/SR G2/S2 1B.1	Perennial rhizomatous herb. Marshes and swamps, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or riverbank erosion. In brackish or freshwater. Elevations: 0-35ft. (0-10m.) Blooms Apr-Nov.	Not Expected	There are no known occurrences within five miles, tidal marsh and river-bank habitats are not present, and the APE is outside this species elevation range.

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Limosella australis Delta mudwort	None/None G4G5/S2 2B.1	Perennial stoloniferous herb. Marshes and swamps, riparian scrub. Usually on mud banks of the Delta in marshy or scrubby riparian associations; often with *Lilaeopsis masonii*. Elevations: 0-10ft. (0-3m.) Blooms May-Aug.	Not Expected	There are no known occurrences within five miles, delta marsh, swamp, and riparian habitats are not present, and the APE is outside this species elevation range.
Madia radiata showy golden madia	None/None G3/S3 1B.1	Annual herb. Cismontane woodland, valley and foothill grassland. Mostly on adobe clay in grassland or among shrubs. Elevations: 80-3,985ft. (25-1,215m.) Blooms Mar-May.	Not Expected	There are no known occurrences within five miles, woodland habitats with adobe clay are not present.
Monolopia gracilens woodland woollythreads	None/None G3/S3 1B.2	Annual herb. Broadleafed upland forest, chaparral, cismontane woodland, north coast coniferous forest, valley and foothill grassland. Grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns, but may have only weak affinity to serpentine. Elevations: 330-3,935ft. (100-1,200m.) Blooms (Feb) Mar-Jul.	Not Expected	There are no known occurrences within five miles, and chaparral and woodland habitats with rocky serpentine soils are not present.
Navarretia nigelliformis ssp. *radians* shining navarretia	None/None G4T2/S2 1B.2	Annual herb. Cismontane woodland, valley and foothill grassland, vernal pools. Apparently in grassland, and not necessarily in vernal pools. Elevations: 215-3,280ft. (65-1,000m.) Blooms (Mar) Apr-Jul.	Not Expected	There are no known occurrences within five miles, and native annual grasslands are not present.
Navarretia prostrata prostrate vernal pool navarretia	None/None G2/S2 1B.2	Annual herb. Coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools. Alkaline soils in grassland, or in vernal pools. Mesic, alkaline sites. Elevations: 10-3,970ft. (3-1,210m.) Blooms Apr-Jul.	Not Expected	There are no known occurrences within five miles, and wetland habitats with alkaline soils are not present.

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Plagiobothrys glaber hairless popcornflower	None/None GX/SX 1A	Annual herb. Marshes and swamps, meadows and seeps. Coastal salt marshes and alkaline meadows. Elevations: 50-590ft. (15-180m.) Blooms Mar-May.	Not Expected	There is one known occurrence within five miles, however this occurrence is from 1942, the exact location is unknown, and is extirpated (occurrence 5, CDFW 2024a)
Puccinellia simplex California alkali grass	None/None G2/S2 1B.2	Annual herb. Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools. Alkaline, vernally mesic. Sinks, flats, and lake margins. Elevations: 5-3,050ft. (2-930m.) Blooms Mar-May.	Not Expected	There are three known occurrences within five miles, however alkaline wetland habitats are not present.
Ravenella exigua chaparral harebell	None/None G2/S2 1B.2	Chaparral. Rocky sites, usually on serpentine in chaparral. 275-1250m. Blooms May-Jun.	Not Expected	There are no known occurrences within five miles, and chaparral habitats with rocky serpentine soils are not present.
Senecio aphanactis chaparral ragwort	None/None G3/S2 2B.2	Annual herb. Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. Elevations: 50-2,625ft. (15-800m.) Blooms Jan-Apr (May).	Not Expected	There is one known occurrence within five miles, however this occurrence is approximately 4.9 miles from the APE and dry alkaline flats are not present (occurrence 17, CDFW 2024a)
Spergularia macrotheca var. *longistyla* long-styled sand-spurrey	None/None G5T2/S2 1B.2	Perennial herb. Marshes and swamps, meadows and seeps. Alkaline. Elevations: 0-835ft. (0-255m.) Blooms Feb-May.	Not Expected	There are four known occurrences within five miles, however alkaline wetland habitats are not present.
Streptanthus albidus ssp. *peramoenus* most beautiful jewelflower	None/None G2T2/S2 1B.2	Annual herb. Chaparral, cismontane woodland, valley and foothill grassland. Serpentine outcrops, on ridges and slopes. Elevations: 310-3,280ft. (95-1,000m.) Blooms (Mar) Apr-Sep (Oct).	Not Expected	There are no known occurrences within five miles, and chaparral and woodland habitats with serpentine outcrops are not present.

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Trifolium hydrophilum saline clover	None/None G2/S2 1B.2	Annual herb. Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. Elevations: 0-985ft. (0-300m.) Blooms Apr-Jun.	Not Expected	There is one known occurrence within five miles, however alkaline wetland habitats are not present.
Tropidocarpum capparideum caper-fruited tropidocarpum	None/None G1/S1 1B.1	Annual herb. Valley and foothill grassland. Alkaline clay. Elevations: 5-1,495ft. (1-455m.) Blooms Mar-Apr.	Not Expected	There is one known occurrence within five miles, however this occurrence is from 1897 and the exact location is unknown (occurrence 11, CDFW 2024a)
Viburnum ellipticum oval-leaved viburnum	None/None G4G5/S3? 2B.3	Perennial deciduous shrub. Chaparral, cismontane woodland, lower montane coniferous forest. Elevations: 705-4,595ft. (215-1,400m.) Blooms May-Jun.	Not Expected	There are no known occurrences within five miles, and chaparral, woodland, and coniferous forest habitats are not present.

Regional Vicinity refers to within a 9-quad search radius of site.

Status (Federal/State)

FE = Federal Endangered
FT = Federal Threatened
FPE = Federal Proposed Endangered
FPT = Federal Proposed Threatened
FD = Federal Delisted
FC = Federal Candidate
SE = State Endangered
ST = State Threatened
SCE = State Candidate Endangered
SCT = State Candidate Threatened
SR = State Rare
SD = State Delisted
SSC = CDFW Species of Special Concern
FP = CDFW Fully Protected
WL = CDFW Watch List

CRPR (CNPS California Rare Plant Rank)

1A = Presumed extirpated in California, and rare or extinct elsewhere
1B = Rare, Threatened, or Endangered in California and elsewhere
2A = Presumed extirpated in California, but common elsewhere
2B= Rare, Threatened, or Endangered in California, but more common elsewhere
3 = Need more information (Review List)
4 = Limited Distribution (Watch List)

CRPR Threat Code Extension

.1 = Seriously endangered in California (>80% of occurrences threatened/high degree and immediacy of threat)
.2 = Moderately threatened in California (20-80% of occurrences threatened/moderate degree and immediacy of threat)
.3 = Not very endangered in California (<20% of occurrences threatened/low degree and immediacy of threat)

Other Statuses

G1 or S1 Critically Imperiled Globally or Subnationally (state)
G2 or S2 Imperiled Globally or Subnationally (state)
G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)
G4/5 or S4/5 Apparently secure, common and abundant
GH or SH Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery

Additional notations may be provided as follows

T – Intraspecific Taxon (subspecies, varieties, and other designations below the level of species)
Q – Questionable taxonomy that may reduce conservation priority
? – Inexact numeric rank

Special-Status Wildlife Species in the Regional Vicinity of the Project Site

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
Invertebrates				
Bombus crotchii Crotch bumble bee	None/SCE G2/S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*.	Low Potential	There are no known occurrences within five miles, and the closest current sightings in Bumble Bee Watch are reported from Santa Clara County, south of Milpitas (Xerces Society, et al. 2024). However, flowering plants are present.
Bombus occidentalis western bumble bee	None/SCE G3/S1	Once common and widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease.	Not Expected	There are two known occurrences within five miles, however these occurrences are from the 1950"s (occurrence 232 and 231 CDFW 2024a). Additionally, no current sightings have been reported west of the Sierra Navada range in Bumble Bee Watch (Xerces Society, et al. 2024).
Branchinecta conservatio conservancy fairy shrimp	FE/None G2/S2	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	Not Expected	There are three known occurrences within five miles, however they are all north of I-580 and vernal pools are not present.
Branchinecta longiantenna longhorn fairy shrimp	FE/None G2/S2	Endemic to the eastern margin of the Central Coast mountains in seasonally astatic grassland vernal pools. Inhabit small, clear-water depressions in sandstone and clear-to-turbid clay/grass-bottomed pools in shallow swales.	Not Expected	There are six known occurrences within five miles, including a suppressed location encompassing the APE from 2018 (occurrence 24, CDFW 2024a). However vernal pools are not present.
Branchinecta lynchi vernal pool fairy shrimp	FT/None G3/S3	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Not Expected	There are three known occurrences within five miles, however all are north of I-580 and vernal pools are not present.

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
Danaus plexippus plexippus pop. 1 monarch - California overwintering population	FC/None G4T1T2Q/S2	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Low Potential	There are no known occurrences within five miles, and suitable wind shielded tree groves are not present. Milkweed plants were not observed, however there is low potential for milkweed to occur in the grassland habitats.
Desmocerus californicus dimorphus valley elderberry longhorn beetle	FT/None G3T3/S3	Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus mexicana*). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	Not Expected	There are no known occurrences within five miles, no elderberry shrubs were observed, and the APE is outside this species known range.
Fish				
Acipenser medirostris pop. 1 green sturgeon - southern DPS	FT/None G2T1/S1	Spawns in the Sacramento, Feather and Yuba Rivers. Presence in upper Stanislaus and San Joaquin Rivers may indicate spawning. Non-spawning adults occupy marine/estuarine waters. Delta Estuary is important for rearing juveniles. Spawning occurs primarily in cool (11-15 C) sections of mainstem rivers in deep pools (8-9 meters) with substrate containing small to medium sized sand, gravel, cobble, or boulder.	Not Expected	There are no known occurrences within five miles, and river habitats are not present. Intermittent streams such as Arroyo Seco do not support this species.
Hypomesus transpacificus Delta smelt	FT/SE G1/S1	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities > 10 ppt. Most often at salinities < 2ppt.	Not Expected	There are no known occurrences within five miles, and river delta habitats are not present. Intermittent streams such as Arroyo Seco do not support this species.
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	FT/None G5T2Q/S2	Populations in the Sacramento and San Joaquin rivers and their tributaries.	Not Expected	There are no known occurrences within five miles, and suitable river and stream habitats are not present. Intermittent streams such as Arroyo Seco do not support this species.

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
Oncorhynchus mykiss irideus pop. 8 steelhead - central California coast DPS	FT/None G5T3Q/S3	DPS includes all naturally spawned populations of steelhead (and their progeny) in streams from the Russian River to Aptos Creek, Santa Cruz County, California (inclusive). Also includes the drainages of San Francisco and San Pablo Bays.	Not Expected	There are no known occurrences within five miles, and suitable river and stream habitats are not present. Intermittent streams such as Arroyo Seco do not support this species.
Spirinchus thaleichthys longfin smelt	FC/ST G5/S1	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater.	Not Expected	There are no known occurrences within five miles, and estuarine habitats are not present. Intermittent streams such as Arroyo Seco do not support this species.
Thaleichthys pacificus eulachon	FT/None G5/S1	Found in Klamath River, Mad River, Redwood Creek, and in small numbers in Smith River and Humboldt Bay tributaries. Spawn in lower reaches of coastal rivers with moderate water velocities and bottom of pea-sized gravel, sand, and woody debris.	Not Expected	There are no known occurrences within five miles, and estuarine habitats are not present. Intermittent streams such as Arroyo Seco do not support this species.
Amphibians				
Ambystoma californiense pop. 1 California tiger salamander – central California DPS	FT/ST G2G3T3/S3 WL	Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland habitats. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	High Potential	There are 49 occurrences within five miles, including three within the APE, one broadly mapped within Arroyo Seco and along Tesla Road in the APE (occurrence 184, 227, and 898 CDFW 2024a), and annual grasslands with the potential for small mammal burrows are present. Additionally, potential breeding ponds occur within dispersal distance (3.1 miles) of the APE.
Rana boylii pop. 4 foothill yellow-legged frog - central coast DPS	FT/SE G3T2/S2	San Francisco Peninsula and Diablo Range south of San Francisco Bay Estuary, and south through the Santa Cruz and Gabilan Mountains east of the Salinas River in the southern inner Coast	Not Expected	There are three known occurrences within five miles, however river and stream habitats with riffles and rocky cobble substrates are not present, and these occurrences are from higher

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
		Ranges. Partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying and at least 15 weeks to attain metamorphosis.		elevations within the Diablo Range to the south east of the APE.
Rana draytonii California red-legged frog	FT/None G2G3/S2S3 SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	High Potential	There are 32 known occurrences within five miles, including one within Arroyo Seco in the APE (occurrence 786 CDFW 2024a), and cottonwood riparian habitat in the APE is suitable upland refugia.
Spea hammondii western spadefoot	FPT/None G2G3/S3S4 SSC	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Moderate Potential	There are two known occurrences within five miles, including one approximately 0.2 miles northwest of the APE (occurrence 339, CDFW 2024a), which has connectivity to the site via Arroyo Seco.
Reptiles				
Anniella pulchra Northern California legless lizard	None/None G3/S2S3 SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	Not Expected	There are no known occurrences within five miles, and sandy loose loamy soils with sparse vegetation are not present.
Arizona elegans occidentalis California glossy snake	None/None G5T2/S2 SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	Low Potential	Suitable grassland habitat is present, however, there are no known occurrences within five miles and the site is largely developed.
Actinemys marmorata northwestern pond turtle	FPT/None G2/SNR SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km	Low Potential	There are four known occurrences within five miles, including one within Arroyo Seco approximately 467 feet from the APE (occurrence 1243, CDFW 2024a), however Arryo Seco does not contain ponds or

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
		from water for egg-laying. Occurs in northern California, south along the Sierra Nevada Mountains and the Coast Range down to Monterey and Kern Counties.		marshes, and is only suitable dispersal habitat.
Masticophis flagellum ruddocki San Joaquin coachwhip	None/None G5T2T3/S3 SSC	Open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in the San Joaquin Valley. Needs mammal burrows for refuge and oviposition sites.	Low Potential	There is one known occurrence within five miles, from within the APE along Greenville Road (occurrence 28, CDFW 2024a). However open, dry habitats with native grasslands and saltbush scrub are not present.
Masticophis lateralis euryxanthus Alameda whipsnake	FT/ST G4T2/S2	Typically found in chaparral and scrub habitats but will also use adjacent grassland, oak savanna and woodland habitats. Mostly south-facing slopes and ravines, with rock outcrops, deep crevices or abundant rodent burrows, where shrubs form a vegetative mosaic with oak trees and grasses.	Not Expected	There are three known occurrences within five miles, however suitable chaparral and scrub habitats are not present, and the occurrences are located at higher elevations in the Altamont Hills to the east, and Diablo Range to the south, the closest of which is approximately 4.3 miles from the APE.
Phrynosoma blainvillii coast horned lizard	None/None G4/S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Not Expected	There is one known occurrence within five miles, however suitable chaparral and scrub habitats with sandy washes are not present.
Birds				
Accipiter cooperii Cooper's hawk	None/None G5/S4 WL	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	High Potential	There is one known occurrence within five miles, from the far southern end of the APE, where nesting pair was observed in 2009 (occurrence 124, CDFW 2024a). Additionally, there are numerous sightings within five miles in eBird (eBird 2024).

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
Accipiter striatus sharp-shinned hawk	None/None G5/S4 WL	Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers riparian areas. North-facing slopes with plucking perches are critical requirements. Nests usually within 275 ft of water.	Not Expected	There are no known occurrences within five miles, and suitable forest and woodland habitats are not present.
Agelaius tricolor tricolored blackbird	None/ST G1G2/S2 SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and pasture or grain fields for foraging with insect prey within a few kilometers of the colony.	Low Potential	There are five known occurrences within five miles, including one from the APE (occurrence 906, CDFW 2024a). However, this occurrence is from an unspecified area along Arroyo Seco where cattails and mustard provided potential nesting habitat, and suitable open water and cattail marshes are not present.
Ammodramus savannarum grasshopper sparrow	None/None G5/S3 SSC	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	Not Expected	There are no known occurrences within five miles, and native grasslands are not present.
Aquila chrysaetos golden eagle	None/None G5/S3 FP WL	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Not Expected	There is one known occurrence within five miles, however suitable nest trees and foraging habitat within and adjacent to the APE are limited due to the level of disturbance from human activity.
Asio flammeus short-eared owl	None/None G5/S2 SSC	Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	Not Expected	There are no known occurrences within five miles, and swamps, tule patches, and tall grass are not present.

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
Athene cunicularia burrowing owl	None/SCE G4/S2 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Moderate Potential	There are 17 known occurrences within five miles, including one from approximately 0.2 miles west of the APE (occurrence 926, CDFW 2024a). However, the APE is largely developed, and disturbed by agricultural use.
Buteo regalis ferruginous hawk	None/None G4/S3S4 WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	High Potential	There are three known occurrences within five miles, and there are numerous sightings in the project vicinity in eBird (eBird 2024).
Buteo swainsoni Swainson"s hawk	None/ST G5/S4	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Low Potential	There is one known occurrence within five miles and suitable nest trees and foraging habitat are present, and there are numerous sightings in the project vicinity in eBird (eBird 2024). However, the APE is largely developed, and disturbed by agricultural use.
Circus hudsonius northern harrier	None/None G5/S3 SSC	Coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	Not Expected	There are no known occurrences within five miles, and grasslands in the APE are likely too disturbed by agricultural use to provide suitable nesting habitat.
Elanus leucurus white-tailed kite	None/None G5/S3S4 FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Moderate Potential	There are two known occurrences within five miles, and suitable nest trees and foraging habitat are present. Additionally, there are numerous sightings in the project vicinity in eBird (eBird 2024).

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
Eremophila alpestris actia California horned lark	None/None G5T4Q/S4 WL	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	Not Expected	There is one known occurrence within five miles and grassland habitats are present, however native short-grass prairie, "bald" hills, and mountain meadows are not.
Falco mexicanus prairie falcon	None/None G5/S4 WL	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	Not Expected	There are no known occurrences within five miles, and suitable cliffs are not present.
Falco peregrinus anatum American peregrine falcon	FD/SD G4T4/S3S4	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Not Expected	There are three known occurrences within five miles, however these occurrences are from higher elevations in the Diablo Range. Additionally, the APE contains foraging habitat, but suitable cliffs and tall buildings are not present.
Gymnogyps californianus California condor	FE/SE, G1/S2 FP	Require vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.	Not Expected	There are no known occurrences within five miles, and suitable cliffs are not present.
Haliaeetus leucocephalus bald eagle	FD/SE G5/S3 FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	Not Expected	There are no known occurrences within five miles, and the APE is likely too disturbed by agricultural use and human activity to provide suitable nesting habitat.
Lanius ludovicianus loggerhead shrike	None/None G4/S4 SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Moderate Potential	There are two known occurrences within five miles, and suitable grassland foraging habitats are present.

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
Melospiza melodia pop. 1 song sparrow ("Modesto" population)	None/None G5T3?Q/S3? SSC	Central lower basin of Great Valley, from Colusa County south to Stanislaus County and east of Suisun Marshes. Breeds chiefly below 200 feet elevation. Freshwater marshes, riparian thickets, sparsely vegetated irrigation canals, and Valley Oak restoration sites. Cover consists of willow and nettle thickets, growths of tules and cattails, and riparian oak forests with sufficient understory of blackberry.	Not Expected	There are no known occurrences within five miles, Suitable habitat for this species is not present within or adjacent to the APE and the APE is outside this species known range.
Mammals				
Antrozous pallidus pallid bat	None/None G4/S3 SSC	Found in a variety of habitats including deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in crevices of rock outcrops, caves, mine tunnels, buildings, bridges, and hollows of live and dead trees which must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Not Expected	There are two known occurrences within five miles, however caves, mines, and abandoned cave like buildings are not present.
Corynorhinus townsendii Townsend's big-eared bat	None/None G4/S2 SSC	Occurs throughout California in a wide variety of habitats. Most common in mesic sites, typically coniferous or deciduous forests. Roosts in the open, hanging from walls; ceilings in caves, lava tubes, bridges, and buildings. This species is extremely sensitive to human disturbance.	Not Expected	There are no known occurrences within five miles, and coniferous or deciduous forests are not present.
Neotoma fuscipes annectens San Francisco dusky-footed woodrat	None/None G5T2T3/S2S3 SSC	Typically found in forest habitats with moderate to dense understory. Can occur in chaparral, riparian woodlands, and coniferous forests, particularly redwood. Builds middens out of grasses, leaves, and woody debris. This subspecies is found only in	Not Expected	There are no known occurrences within five miles, chaparral, oak woodlands, and coniferous forests are not present, and the APE is outside this species known range.

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
		the San Francisco Bay region.		
Taxidea taxus American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Low Potential	There are three known occurrences within five miles, including one approximately 0.2 mile northwest of the APE from 2016 (occurrence 527, CDFW 2024a), however suitable open grassland habitats with large burrows are not present, and the APE is largely developed, and disturbed by agricultural use.
Vulpes macrotis mutica San Joaquin kit fox	FE/ST G4T2/S3	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	Not Expected	There is one occurrence within five miles (approximately 2.6 miles), however this occurrence is from the 1980"s (occurrence 43, CDFW 2024a). Additionally, suitable open desert and grassland habitats with ground squirrel burrows are not present, and the APE is largely developed, and disturbed by agricultural use.

ft. = feet; km = kilometer

Regional Vicinity refers to within a nine-quad search radius of site (in this case, a seven-quad search was conducted).

Status (Federal/State)

FE = Federal Endangered
FT = Federal Threatened
FPT = Federal Proposed Threatened
FD = Federal Delisted
FC = Federal Candidate
SE = State Endangered
ST = State Threatened
SCE = State Candidate Endangered
SD = State Delisted
SSC = CDFW Species of Special Concern
FP = CDFW Fully Protected
WL = CDFW Watch List

Other Statuses

G1 or S1 Critically Imperiled Globally or Subnationally (state)
G2 or S2 Imperiled Globally or Subnationally (state)
G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)
G4/5 or S4/5 Apparently secure, common and abundant

Additional notations may be provided as follows

T – Intraspecific Taxon (subspecies, varieties, and other designations below the level of species)
Q – Questionable taxonomy that may reduce conservation priority

Appendix C

Cultural Resources Assessment

Rincon Consultants, Inc.
66 Franklin Street, Suite 300
Oakland, California 94607
510-834-4455

May 6, 2025
Project No: 23-15365

Jaimie Orfanos, Assistant Director
Alameda County
Community Development Agency
Economic and Civic Development Department
224 West Winton Avenue, Room 110
Hayward, California 94544

Subject: Cultural Resources Memorandum for the Greenville Road Sewer Extension Project, Unincorporated Alameda County, California

Dear Ms. Orfanos:

The County of Alameda (County) retained Rincon Consultants, Inc. (Rincon) to prepare a cultural resources assessment in support of the Greenville Road Sewer Extension Project (project) located in unincorporated Alameda County, California. This memorandum documents the results of the assessment and tasks performed by Rincon, including a California Historical Resources Information System (CHRIS) records search; a Native American Heritage Commission (NAHC) Sacred Lands File search (SLF); archival and background research, including a desktop geoarchaeological review; field surveys; and evaluation of three built-environment resources for listing in the California Register of Historical Resources (CRHR), including two transmission line segments and the Arroyo Seco Bridge (Bridge No. 33C0240). All work was completed in accordance with California Environmental Quality Act (CEQA) and applicable local regulations, including Alameda County's Historic Preservation Ordinance. The County is the lead agency under CEQA.

Project Location

The project site is located in unincorporated Alameda County, within Sections 13, 18, 19, and 24 of Township 3 South, Range 2 and 3 East on the *Altamont* 7.5-minute topographic quadrangle (Attachment 1:Figure 1). More specifically, the project site includes a segment of the Greenville Road right-of-way between Tesla Road and the Martinelli Center, as well as the 8.59-acre parcel containing the Martinelli Center at 3585 Greenville Road; Assessor's Parcel Number (APN) 99A-1602-13-1). The project site also includes an approximately 3-acre portion of the parcel to the north of the Martinelli Center APN 99A-1602-5-3. Both parcels are owned by the Alameda County Surplus Property Authority. Access to the project site is provided locally by Greenville Road and Tesla Road, and regionally by Interstate 580 (Attachment 1:Figure 2). The South Bay Aqueduct, which orients in a north-south direction, is located outside of the project site, to the immediate west of the Martinelli Center property. Arroyo Seco, which orients in an east-west direction, flows beneath Greenville Road south of the Martinelli Center.

Project Description

The project includes two components: the extension of a sewer line along Greenville Road between Tesla Road and the Martinelli Center and modifications to and/or re-use of the Martinelli Center (Attachment 1, Figure 3).

Sewer Expansion

The proposed project would entail the extension of sewer services approximately 0.4 miles from the intersection of Greenville Road and Tesla Road north along Greenville Road to the Martinelli Center. The project would be located primarily within paved right-of-way (ROW), with no ground disturbance proposed in adjacent agricultural or natural areas. The alignment crosses one bridge over Arroyo Seco, an east-west intermittent stream. Based on the proposed depth of the pipeline connection at Greenville Road and Tesla Road (15 to 18 feet below ground surface) the project may either involve attaching the pipeline to the bridge or installing the pipeline beneath the intermittent stream. The project also includes a sewer lateral connection from Greenville Road to the existing Martinelli Center buildings. This lateral connection is anticipated to be placed within existing disturbed and/or paved areas within the Martinelli Center parcel. A lift station would be constructed at the Martinelli Center to pump wastewater from the building to Greenville Road, which is needed due to the topography of the site in relation to the road.

Martinelli Center

Project plans have not been finalized; therefore, for the purposes of providing a conservative analysis, this assessment evaluates development that may be indirectly facilitated by the sewer line expansion work as part of the project, specifically modifications to the Martinelli Center. While the County is considering several options for future uses at the Martinelli Center, the analysis described herein is based on the most intensive use that could be feasible for the property. Changes to the Martinelli Center could include uses and physical modifications such as:

- Conversion of the existing office space (Up to 7,300 square feet) into a wine country visitor hub, including activities such as wine tastings and wine trolley tours leaving from the Martinelli Center.
- An upgrade and expansion to the existing kitchen facilities, including the installation of grease traps and equipment modernization;
- Construction of additional on-site parking (up to 130 added spaces).

These modifications would occur on the existing 8.56-acre parcel where the Martinelli Center is located, with the exception of the expanded parking area, which may be constructed within an approximately 3-acre portion of APN 99A-1602-5-3 located immediately north of the Martinelli Center parcel.

Construction

Construction of the pipeline within Greenville Road is expected to begin in Spring 2027 It is anticipated that the pipeline would be constructed at a rate of approximately 150 linear feet per day, within a 20-foot wide work area. Once completed, improvements to the Martinelli Center would commence, including the sewer lateral connection, removal of the septic system, kitchen upgrade improvements, and office to visitor center conversion. A total of 760 cubic yards of excavation would be necessary, some of which would be used as backfill along with 920 cubic yards of imported fill. The maximum depth of excavation is anticipated to be 18 feet for the Greenville Road pipeline, and 6 feet for the Martinelli Center modifications.

Construction staging for the Greenville Road pipeline would occur within the identified project boundary and County right-of-way. Based on the proposed depth of the pipeline connection at Greenville Road and Tesla Road, the project may either involve attaching the pipeline to the bridge or installing the pipeline beneath the intermittent stream).

Regulatory Setting

State

California Environmental Quality Act

California Public Resources Code (PRC) Section 21084.1 requires lead agencies to determine if a project could have a significant impact on historical or unique archaeological resources. As defined in PRC Section 21084.1, a historical resource is a resource listed in, or determined eligible for listing in, the CRHR, a resource included in a local register of historical resources or identified in a historical resources survey pursuant to PRC Section 5024.1(g), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant. PRC Section 21084.1 also states resources meeting the above criteria are presumed to be historically or cultural significant unless the preponderance of evidence demonstrates otherwise. Resources listed in the NRHP are automatically listed in the CRHR, as are California Historical Landmarks 770 and above; both are therefore historical resources under CEQA. Historical resources may include eligible built environment resources and archaeological resources of the precontact or historic periods.

CEQA Guidelines Section 15064.5(c) provides further guidance on the consideration of archaeological resources. If an archaeological resource does not qualify as a historical resource, it may meet the definition of a "unique archaeological resource" as identified in PRC Section 21083.2. PRC Section 21083.2(g) defines a unique archaeological resource as an 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) it contains information needed to answer important scientific research questions and that 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, or 3) is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological resource does not qualify as a historical or unique archaeological resource, the impacts of a project on those resources will be less than significant and need not be considered further (CEQA Guidelines Section 15064.5[c][4]). CEQA Guidelines Section 15064.5 also provides guidance for addressing the potential presence of human remains, including those discovered during the implementation of a project.

According to CEQA, an impact that results in a substantial adverse change in the significance of a historical resource is considered a significant impact on the environment. A substantial adverse change could result from physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired (CEQA Guidelines Section 15064.5 [b][1]). Material impairment is defined as demolition or alteration in an adverse manner [of] those characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR or a local register (CEQA Guidelines Section 15064.5[b][2][A]).

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a][b]).

The requirements for mitigation measures under CEQA are outlined in CEQA Guidelines Section 15126.4(a)(1). In addition to being fully enforceable, mitigation measures must be completed within a defined time period and be roughly proportional to the impacts of the project. Generally, a project which is found to comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (Standards) is considered to be mitigated below a level of significance (CEQA Guidelines Section 15126.4 [b][1]). For historical resources of an archaeological nature, lead agencies should also seek to avoid damaging effects where feasible. Preservation in place is the preferred manner to mitigate impacts to archaeological sites; however, data recovery through excavation may be the only option in certain instances (CEQA Guidelines Section 15126.4[b][3]).

California Register of Historical Resources

The CRHR was established in 1992 and codified by PRC Sections 5024.1 and Title 14 Section 4852. The CRHR 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 5024.1[a]). The criteria for eligibility for the CRHR are consistent with the NRHP criteria but have been modified for state use in order to include a range of historical resources that better reflect the history of California (PRC 5024.1[b]). Unlike the NRHP however, the CRHR does not have a defined age threshold for eligibility; rather, a resource may be eligible for the CRHR if it can be demonstrated sufficient time has passed to understand its historical or architectural significance (California Office of Historic Preservation [OHP] 2011). Furthermore, resources may still be eligible for listing in the CRHR even if they do not retain sufficient integrity for NRHP eligibility (OHP 2011). Generally, the OHP recommends resources over 45 years of age be recorded and evaluated for historical resources eligibility (OHP 1995: 2).

A property is eligible for listing in the CRHR if it meets one of more of the following criteria:

Criterion 1: Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

Criterion 2: Is associated with the lives of persons important to our past.

Criterion 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.

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

California Health and Safety Code

Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains 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 Coroner of the county in which the remains are discovered has determined if the remains are subject to the Coroner's authority. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification.

California Public Resources Code Section 5097.98

Section 5097.98 of the PRC states that the NAHC, upon notification of the discovery of Native American human remains pursuant to Health and Safety Code Section 7050.5, shall immediately notify those persons (i.e., the Most Likely Descendant [MLD]) that it believes to be descended from the deceased. With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

Local

Alameda County Historic Preservation Ordinance

The project site is located in unincorporated Alameda County. Alameda County's Historic Preservation Ordinance defines the criteria for listing in the Alameda County Register of Historic Resources (Alameda County Register) as a County Landmark, Structure of Merit, or historic district (Alameda County 2024).

Section 17.62.060 establishes the criteria and requirements for placement on, or deletion from, the Alameda County Register as landmarks, historic preservation districts, contributing resources or structures of merit as follows:

A. A nominated resource shall be added to the Alameda County Register as a landmark if the Boards of Supervisors finds, after holding the hearings required by this chapter, that all of the requirements set forth below are satisfied
    1. The nominated resource meets one or more of the following criteria:
        a. It is associated with events that have made a significant contribution to the broad patterns of the history of the County, the region, the state, or the nation;
        b. It is associated with the live of persons significant in the County's past;
        c. It embodies the distinctive characteristics of a type, period, or method of construction;
        d. It represents the work of an important creative individual or master
        e. It possesses high artistic values; or
        f. It has yielded, or may be likely to yield, information important in the prehistory or history of the County, the region, the state, or the nation.
    2. The nominated resource has integrity of location, design, setting, materials, workmanship, feeling and association. Integrity shall be judged with reference to the particular criterion or criteria specified in subparagraph 1.
    3. The nominated resource has significance historically or architecturally and its designation as a landmark is reasonable, appropriate and necessary to promote, protect, and further the goals and purposes of this chapter.
    4. The nominated resource has been evaluated by a qualified historical resources consultant who meets one or more of the Secretary of the Interior's professional qualifications standards or who are certified by the Register of Professional Archaeologists and the evaluator has submitted documents that provide evidence of the resources historical or architectural significance (Alameda County 2024).

B. A geographic area nominated as a historic preservation district shall be added to the Alameda County Register as a historic preservation district if the Board of Supervisors finds, after holding the hearings required by this chapter, that all of the requirements set forth below are satisfied:
   1. The area is a geographically definable area;
   2. The area possesses either:
      a. A significant concentration or continuity of buildings unified by: a) past events; or b) aesthetically by plan or physical development; or
      b. The area is associated with an event, person, or period significant or important to county history.
   3. The designation of the geographic area as a historic preservation district is reasonable, appropriate and necessary to protect, promote and further the goals and purposes of this chapter and is not inconsistent with other goals and policies of the county.
   4. A historic preservation district shall have integrity of location, design, setting, materials, workmanship, feeling and association.
   5. The collective historic value of the buildings and structures in a historic preservation district taken together is greater than the historic value of each individual building or structure.
   6. The application is accompanied by a form bearing the signatures of at least fifty-one (51) percent of all property owners within the area of the proposed district.7.
   7. The board finds that the addition of the district to the register does not in any manner interfere, eliminate or otherwise obviate the identification, qualification, designation and preservation requirements of the creation of historic preservation districts pursuant to Chapter 17.20 of this title.

C. A nominated resource shall be added to the Alameda County Register as a structure of merit if the Board of Supervisors finds, after holding the hearing(s) required by this chapter, that it satisfies one or more of the following criteria:
   1. It represents in its location an established and familiar visual feature of the neighborhood, community or county; or
   2. It materially benefits the historic, architectural or aesthetic character of the neighborhood or area; or
   3. It is an example of a type of building that once was common but is now rare in its neighborhood, community or area; or
   4. It is connected with a business or use which was once common but is now rare; or
   5. It contributes to an understanding of the contextual significance of a neighborhood, community or area.

D. A nominated resource shall be added to the Alameda County Register as a contributing resource if the Board of Supervisors finds, after holding the hearing(s) required by this chapter, that it satisfies one or more of the following criteria:
   1. The nominated resource is within a historic district;
   2. The nominated resource either embodies the significant features and characteristics of the historic district or adds to the historical associations, historical architectural qualities or archaeological values identified for the historic district;
   3. The nominated resource was present during the period of historical significance of the historic district and relates to the documented historical significance of the historic district;

4. The nominated resource either possesses historic integrity or is capable of yielding important information about the period of historical significance of the historic district;
5. The nominated resource has important historic or architectural worth, and its designation as a contributing resource is reasonable, appropriate and necessary to protect, promote and further the goals and purposes of this chapter. (Alameda County Code of Ordinances: Ord. No. 2012-5, § 6, 1-10-12)

Methods

This section presents the methods for each task completed during the preparation of this assessment.

Background Research

California Historical Resources Information System Records Search

On December 4, 2024, Rincon received the California Historical Resources Information System (CHRIS) records search results from the Northwest Information Center (Attachment 2). The Northwest Information Center (NWIC) is the official state repository for cultural resources records and reports for the county in which the proposed project falls. The purpose of the records search was to identify previously recorded cultural resources, as well as previously conducted cultural resources studies within the project site and a 0.5-mile radius surrounding it. Rincon also reviewed the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Historical Landmarks list, and the Built Environment Resources Directory, as well as its predecessor the California State Historic Property Data File. Additionally, Rincon reviewed the Archaeological Determination of Eligibility list. Results of the records search can be found in Attachment 2.

Sacred Lands File Search

Rincon contacted the Native American Heritage Commission (NAHC) on October 31, 2024, to request a search of the Sacred Lands File (SLF), and a contact list of Native Americans culturally affiliated with the project site vicinity (Attachment 3).

Additional Sources Consulted

Additional sources were consulted between November and December 2024 to identify known or potential cultural resources in the project site, inform the archaeological sensitivity analysis and develop an understanding of the project site and its context and include the following:

- Alameda County Assessor's Office data accessed via ParcelQuest.com
- Historical aerial photographs accessed via Nationwide Environmental Title Research, LLC (NETR) online
- Historical aerial photographs accessed via University of California, Santa Barbara Library FrameFinder (UCSB)
- USGS Historical Topographic Map Explorer
- Geologic Map of the Altamont Quadrangle, Alameda County, California: Dibblee Geological Foundation, Dibblee Foundation Map DF-197, scale 1:24,000.
- Natural Resources Conversation Service Web Soil Survey

- Historical newspaper clippings obtained from Newspapers.com and the California Digital Newspaper Collection

Field Survey

On December 18, 2024, Rincon Archaeologist Anita Song conducted pedestrian surveys of the project site including a segment of the Greenville Road right-of-way between Tesla Road and the Martinelli Center, as well as the 8.59-acre parcel containing the Martinelli Center (3585 Greenville Road APN-99A-1602-13-1). On February 12, 2025, Rincon Archaeologist Michaela Langer conducted a pedestrian surveys of the approximately 3-acre portion of the parcel to the north (APN 99A-1602-5-3). The project site was surveyed using transect intervals spaced 10 to 15 meters and oriented generally from north to south and east to west. Exposed ground surfaces were examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock), ecofacts (marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historical debris (e.g., metal, glass, ceramics). Ground disturbances such as burrows and drainages were also visually inspected. Survey accuracy was maintained using a handheld Global Positioning Satellite unit and a georeferenced map of the project site. Site characteristics and survey conditions were documented using field records and a digital camera.

Built Environment Resources

Under the direction of Rincon Architectural Historian Josh Bevan, Rincon Archaeologist Anita Song conducted a built environment survey of the Arroyo Seco bridge (Bridge No. 33C0240) on December 18, 2024, located within the project site. The bridge was visually inspected to assess its overall condition and integrity, and to identify and document any potential character-defining features. The bridge was photographed and recorded by Ms. Song, and later inspected by Mr. Bevan, for notable architectural elements and alterations.

On February 12, 2025, Mr. Bevan conducted an additional built environment survey of the project site to record two transmission towers and related transmission line segments that were determined to be located within the project site. The transmission towers were visually inspected. Site characteristics and conditions were documented using notes and digital photographs. Copies of the survey notes and digital photographs are maintained digitally by Rincon.

Evaluations

Pursuant to OHP Guidelines (California OHP 1995: 2), properties over 45 years of age including the Arroyo Seco bridge (Bridge No. 33C0240) and the two transmission line segments within the project site were evaluated for listing in the CRHR and the Alameda County Register and recorded on California Department of Parks (DPR) 523 series forms (Attachment 4).

Findings

This section presents the findings of each task completed during the preparation of this assessment.

Known Cultural Resources Studies

The CHRIS records search and background research identified four cultural resources studies that have been previously conducted within 0.5-mile of the project site between 1990 and 2007 (Attachment 2). Of these studies, one overlapped a portion of the project site (S-017993) and one

occurred adjacent to the project site (S-029590). The one study that occurred within the project site is discussed in further detailed below.

Table 1 Previous Cultural Resources Studies Within 0.5-mile of the Project Site

Report Number	Author	Year	Study	Relationship to Project Site
S-012285	Busby, C., D.M. Garventa, S.A. Guedon, J.C. Bard, M. E. Tannam, S.A. Jarvis, and L.A. Pujol	1990	A Cultural Resources Overview and Historic Preservation Regulatory Analysis of Sandia National Laboratories Livermore Facility, Alameda County, California	Outside
S-012285a	Busby, C., D.M. Garaventa, R.M. Harmon, S.A. Guedon, J.C. Bard, M. E. Tannam, S.A. Jarvis, A.M. Banet, M.R. Fong,I C.F. Praetzel, L.A. Pujol, and S.J. Rossa	1990	A Cultural Resources Assessment of Sandia National Laboratories Livermore Facility, Alameda County, California	Outside
S-017993	Hattoff, B., B. Voss, S. Waechter, S. Wee, and V. Benté	1995	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project	**Within**
S-024986	Basin Research Associates, Inc.	2000	Cultural Resources Assessment, PG&E Proposed Tri-Valley 2002 Electric Power Capacity Increase Program	Outside
S-029590	Brown, K., A. Marlow, T. Young, J. Allan, and W. Self	2004	Cultural Resource Assessment of the South Bay Aqueduct Improvement and Enlargement Project, Alameda County, California	Adjacent,
S-029590a	Brown, K., A. Marlow, T. Young, J. Allan, and W. Self	2006	Final Cultural Resource Assessment of the South Bay Aqueduct Improvement and Enlargement Project, Alameda County, California	Adjacent,
S-029590b	Killingsworth, S. and G.R. Barry	2006	Geologic Report South Bay Aqueduct Enlargement Dyer Dam and Reservoir; Project Geology Report D-180	Adjacent,
S-029590c	Donaldson, M.W.	2007	Proposed Dyer Dam and Reservoir Geoarchaeological Report, File No. COE 60508A; Regulatory Branch (200400765) Section 106 Consultation (Rnd.03) on the Proposed South Bay Aqueduct Improvement, Alameda County, California	Adjacent,

Northwest Information Center (NWIC) 2024

Study S-017993

Brian Hattoff, Barb Voss, Sharon Waechter, Stephen Wee, and Vance Bente of Woodward-Clyde Consultants prepared the Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project, in July 1995. The study included an extensive cultural resources inventory, archival research and a linear field survey of the proposed pipeline route of a proposed natural gas pipeline route stretching from Bakersfield, California, to Ripon, California, with additional branches to Sacramento and the San Francisco Bay Area (Hatoff et al. 1995). The field survey included the entirety of the current project site, however, as this cultural study was conducted over 20 years ago the survey may not comply with the current industry standards. No cultural resources were identified within the project site as a result of this study.

Known Cultural Resources

The CHRIS records search and background research identified no cultural resources within a 0.5-mile radius of the project site. No resources are recorded in or adjacent to the project site.

Sacred Lands File Search

On November 5, 2024, the NAHC responded to Rincon's SLF request, stating that the results of the SLF search were negative meaning no sacred lands have been reported in the vicinity of the project site. The NAHC correspondence is presented in Attachment 3.

Historical Map and Aerial Imagery Review

Historical maps reviewed include the 1876 Historical Atlas of Alameda map No.8 (Thompson & West 1876), the 1907, 1942 *Tesla*, CA 15-minute topographic quadrangles, the 1953 Altamont CA 7.5-minute quadrangle, and the 1914 and 1929 topographic quadrangles (NETR Online 2025). Historical aerial photographs of the project site were available for the following years: 1971, 1974,1979, 1981, 1982, 1987, 1993, 2002, 2005, 2009, 2010, 2012, 2014, 2016, 2018, and 2022 (NETR Online 2025) and the University of California, Santa Barbara (UCSB), Library Geospatial Collection, FrameFinder 1942 and 1965 (UCSB 2024).

The 1876 map depicts the project site north of the Rancho Las Positas, a road is depicted along the alignment of present-day Tesla Road, and another road along the alignment of present-day East Avenue (Thompson & West 1876, Attachment 1: Figure 4). Arroyo Seco is labeled "Muddy Creek" and does not appear to have been bridged by this year. A property is depicted along present-day Greenville Road located north of Arroyo Seco, in the general vicinity of the existing Martinelli Center. A second property is depicted on the east side of the road on the south side of Arroyo Seco. The 1907 topographic map depicts the project site as undeveloped vacant land, Arroyo Seco (formerly Muddy Creek) is shown crossing beneath a bridge along an unnamed road (present-day Greenville Road) at the location of the existing Arroyo Seco Bridge (USGS 1907). The 1914, and 1929 topographic maps depict the same conditions with the project site shown as vacant undeveloped land (NETR Online 2025). One property was located at the northwest corner of present-day Tesla and Greenville roads, while several properties were depicted to the east of Greenville Road along Tesla Road.

A 1940 aerial photograph depicts similar conditions at the project site, and Greenville Road appeared as a paved road (UCSB 1940, Attachment 1: Figure 5). A 1942 topographic map depicts two transmission lines with parallel alignments trending from northeast to southwest and crossing Greenville Road to the north of Arroyo Seco (USGS 1942). These transmission lines aligned existing lines that partially enter the northwestern area of the project site. By 1965, the South Bay Aqueduct was constructed and trended north-south through land located to the immediate west of the project site and the existing Arroyo Seco Bridge is depicted on Greenville Road (UCSB 1965, Attachment 1: Figure 6). That same year the project site was again captured as undeveloped land, with similar agricultural uses in the vicinity, and the surrounding area was subsequently converted to industrial agriculture (UCSB 1965). From 1971 to 1993, the site and its surroundings remained largely unchanged (NETR 2025).

By 2002 the project site within APN 99A-1602-13-1 was graded and the County's field office building constructed. The entire parcel was further developed between 2002 and 2005 with the construction of Martinelli Center buildings, a parking lot, and grape vineyards planted within the Martinelli Center parcel and adjacent parcel (APN 99A-1602-5-3) to the north. Aerial photographs from 2009 to 2022 capture the site in its current condition, surrounded by various agricultural fields (NETR 2025).

Geologic and Soil Map Review

Geologic mapping indicates two geologic units are mapped at surface in the project site including: Holocene-age (11,650 years ago to present) alluvial pebble gravel, sand, and clay (map unit Qa) and Pleistocene-age (2.58 million to 11,700 years ago) Livermore gravel and sand (map unit QTlg) mapped primarily in the Martinelli Center parcel (Dibblee and Minch 2006). The Pleistocene-age sediments mapped in the project site within the Martinelli Center and a portion of Greenville Road south of Arroyo Seco were deposited in an era that largely pre-dates human occupation of the region and are generally not conducive to the natural burial and preservation of archaeological deposits. The Holocene-age alluvium is mapped south of the Martinelli Center within the majority of Greenville Road. Holocene age alluvium was deposited during deposited during a period that entirely encompasses human occupation of the region and is conducive to the natural burial and preservation of archaeological deposits.

The Natural Resources Conservation Service Web Soil Survey (United States Department of Agriculture [USDA] 2025) mapped three soil series within the project site, Positas gravelly loam, Azule clay loam and Zamora silt loam. Positas soils are derived from alluvial material from mixed rock sources and are found on stream terraces and terrace side slopes. A typical soil profile of the Positas series includes an Ap Horizon (topsoil disturbed by agricultural activities) extending from the ground surface to a depth of 8 inches, an undisturbed A Horizon (topsoil) of gravelly loam that extends from 8 to 11 inches, followed by underlying subsoil and clay parent material extending to a depth of 64 inches (USDA 2014). The Positas soils are mapped within the northern half of the Martinelli Center, the Arroyo Seco Bridge, and the majority of Greenville Road. Azule clay loam formed in material weathered from alluvium and soft shale and fine grained sandstone and found on hills and have a typical profile consisting of a shallow A Horizon (0to 6 inches) underlain by clay, sand clay and grading to a Cr horizon of consolidated gravelly fine shale or sandstone to a depth of 40 inches (USDA 1997). Azule soils are mapped within the southern half of the Martinelli Center. Zamora soil formed in material weathered from mixed rock on alluvial fans, stream terraces and flood plains (USDA 2018). A typical soil profile of the Zamora series includes an Ap Horizon (0-10 inches) underlain by silty clay loam and gravelly loam (10-60 inches). Zamora soils are mapped within a small portion of Greenville Road south of the Arroyo Seco Bridge. None of the soils mapped within the project site contains buried topsoil (Ab horizon), which would elevate the potential for the presence of subsurface archaeological deposits.

Archaeological Sensitivity Summary

The geoarchaeological review indicates that soils within the project site have been heavily impacted by modern development upon the surface and in the near surface sediments. The Martinelli Cener parcel has been subject to grading for the construction of the County's field office the associated parking lot, and the construction of the Martinelli Center. The eastern portion of the Martinelli parcel and the parcel adjacent to the north are planted with grape vineyard. The project site along Greenville road has also been subjected to disturbance with the road construction, utility installations and periodic maintenance. The CHRIS records search, SLF search and pedestrian survey identified no prehistoric or historical archeological sites within or adjacent to the project site and no cultural resources were identified within the 0.5- mile search radius of the project site. Given the age of the geologic units and the presence of disturbed topsoil as suggested by the geologic and soils maps, the subsurface conditions within portions of the project site may contain archaeological materials that have been displaced through agricultural activities (Ap Horizon between 0 and 8 inches below ground surface and an undisturbed A Horizon that extends from 8 to 11 inches). Additionally, the presence of a year round water source intersecting the project site (Arroyo Seco) slightly increases the likelihood of buried Native American archaeological deposits or features. However, the entire project site has been extensively disturbed by the construction and maintenance of Greenville Road, the Arroyo Seco

Bridge, the Martinelli Center, and associated vineyards. As such, the geoarchaeological sensitivity of the project site is considered low.

Survey Results

Built Environment Resources

The following section summarizes the results of all background research and fieldwork as they pertain to built environment resources that may qualify as historical resources. The field work and background research resulted in the identification of three historic-age resources within the project site: Arroyo Seco Bridge (Bridge No. 33C0240), as well as two 230kV transmission lines segments with a single associated steel lattice tower (Table 2, Attachment 1: Photograph 1 through Photograph 3). These resources were recorded and evaluated for historical resources eligibility on DPR series 523 forms, which are included in Attachment 4 and summarized below.

Table 2 Built Environment Resources

Resource Name	APN	Description
Arroyo Seco Bridge (Bridge No. 33C0240)	N/A	Concrete bridge built in 1962
PG&E Tesla-Newark #1 230kV Transmission Line	99A-1602-013-01, 099A-1602-005-03	Transmission line segment with one tower, built ca. 1971-1973 (segment)
PG&E Tesla-Newark #2 230kV Transmission Line	99A-1602-013-01, 099A-1602-005-03	Transmission line segment with one tower, built ca. 1922-1940

Arroyo Seco Bridge (Bridge No. 33C0240)

Physical Description

The Arroyo Seco Bridge (Bridge No. 33C0240) spans Arroyo Seco, a typically dry creek bed, along Greenville Road in unincorporated Alameda County, to the immediate east-southeast of the City of Livermore. The bridge was constructed in 1962 and is a continuous-span, reinforced-concrete deck beam bridge. The bridge is approximately 200-feet long from north to south and approximately 80-feet wide. The bridge's deck is made of concrete and appears to be continuous with its structure, which features two concrete abutments on each end of the bridge. Metal guardrails are located on each side of the bridge and are bolted to steel beam posts that are mounted to the sides of the bridge span. Beneath the bridge, several poured-in-place concrete columns extend from the underside of the bridge to the creek bed. These columns appear to be of more recent origin than the bridge's main concrete structure. The bridge appears to be in fair condition. Damage to the east guardrail was observed during survey.

Developmental History

The Arroyo Seco Bridge is oriented north-south along Greenville Road, which generally runs along a land section line in the immediate vicinity of the bridge. By the mid-1870s, a road along the alignment of present-day Greenville Road does not appear to have been in place. Rather, access to this area of eastern Alameda County included a road along the alignment of present-day Tesla Road, and another road along the alignment of present-day East Avenue (Thompson & West 1876, Attachment 1: Figure 4). The vicinity of the project site consisted of several properties ranging in size from around 160 acres (a quarter-section) to over 900 acres (Thompson & West 1876). Arroyo Seco was labeled "Muddy Creek" on an 1876 atlas map and the creek does not appear to have been bridged by this

year (Thompson & West 1876). By 1907, Arroyo Seco was bridged by a since replaced structure (USGS 1907). The bridge that was present by 1907 was part of a dirt road aligned with present-day Greenville Road (UCSB 1940, Attachment 1: Figure 5). The existing Arroyo Seco Bridge was constructed in 1962 according to Caltrans documentation and has retained its original length, width, and construction characteristics, excepting below-deck concrete columns that appear to post-date 1962 construction, since 1962 (Caltrans 2021, UCSB 1965).

Historical Resource Evaluation

The Arroyo Seco Bridge is recommended ineligible for listing in the CRHR and for listing in the Alameda County Register as an Alameda County Landmark or Structure of Merit, due to a lack of historical and architectural significance. Please refer to the attached DPR Forms for additional description, historical context, and full historical evaluation of the Arroyo Seco Bridge, provided in Attachment 5.

Tesla-Newark No.1 230kV Transmission Line

Physical Description

An approximately 540-foot segment of Pacific Gas & Electric Company's (PG&E) Tesla-Newark No.1 230kV transmission line (hereafter, Tesla-Newark No.1) trends northeast-southwest through the northern area of the project site. The Tesla-Newark No. 1 begins at PG&E's Tesla Substation in western San Joaquin County, and trends southwestward through Alameda County to PG&E's Newark Substation on the east side of San Francisco Bay; one of the conductors carried by this line, Tesla-Ravenswood, continues from Newark to PG&E's Ravenswood Substation near Menlo Park, on the opposite side of San Francisco Bay. The entire line appears to be approximately 27 miles in length between Tesla and Newark, and roughly 9 additional miles in length between Newark and Ravenswood. The subject segment The subject segments consists of a single steel lattice suspension tower, carrying two circuits, with twelve conductors. The tower has a typical tapered form, sits on cylindrical concrete footings, and has angled insulators that appear to be ceramic or polymer plastic.

Development History

The Tesla-Newark No.1 appears to have been developed between 1971 and 1974 as a reconductored transmission line along a similar alignment to a preexisting 220kV transmission line that was present by 1940 and had extended between Tracy and Newark. Review of historical aerial photography indicates the existing tower associated with this transmission line within the project site, as well as several nearby towers, were constructed ca. 1971 to 1974, rather than ca. 1940. The tower's construction, and reconductoring of the line to 230kV likely occurred as a means of supporting continued step-down transmission from PG&E's Tesla Substation (UCSB 1940, NETR 2025). Thus, the subject segment of Tesla-Newark No.1 is representative of alteration to a preexisting line.

Historical Resource Evaluation

The subject Tesla-Newark No.1 segment and its associated steel lattice tower are recommended ineligible for listing in the CRHR and for listing in the Alameda County Register as an Alameda County Landmark or Structure of Merit, due to a lack of historical and architectural significance. Please refer to the attached DPR Forms for additional description, historical context, and full historical evaluation of each transmission line segment, provided in Attachment 5.

Tesla-Newark No.2 230kV Transmission Line

Physical Description

An approximately 490-foot segment of Pacific Gas & Electric Company's (PG&E) Tesla-Newark No.2 230kV transmission line (hereafter, Tesla-Newark No.2) trends northeast-southwest through the northern area of the project site, to the south and parallel to the Tesla-Newark No. 1. The Tesla-Newark No. 2 begins at PG&E's Tesla Substation in western San Joaquin County, and trends southwestward through Alameda County to PG&E's Newark Substation on the east side of San Francisco Bay. The entire line appears to be approximately 27 miles in length between Tesla and Newark. The subject segments consists of a double-circuit line with six conductors, with one steel lattice suspension tower carrying the subject segment (Photograph 2). The tower has a typical tapered form, sits on tapered concrete footings, and has vertically oriented insulators that appear to be ceramic or polymer plastic.

Development

The Tesla-Newark No.2 appears to have been developed between ca. 1920 and 1940 as a tower that supported a 220kV transmission line developed by PG&E ca. 1920 to 1940. The line ran between the vicinity of Tracy and Newark, where PG&E had developed a substation in 1920, rather than between the existing Tesla Substation and Newark (PG&E 2020). Research of historical PG&E publications found that the tower associated with the subject segment of the Tesla-Newark No.2 is of similar design to steel lattice towers that PG&E used in ca. 1920s, and retains its original location (PG&E 1922a, 1922b). Circa 1971-1974, the Tesla-Newark No.2 appears to have been reconductored to 230kV, likely in association with continued step-down transmission from the Tesla Substation in San Joaquin County (PG&E 2020). Overall, the subject segment of the Tesla-Newark No.2 features a ca. 1920-1940 steel lattice tower that carries a reconductored transmission line. Although the subject segment features a similar alignment as it did ca. 1940, the line's earlier end point near Tracy has been altered.

Historical Resource Evaluation

The subject Tesla-Newark No.2 segment and its associated steel lattice tower are recommended ineligible for listing in the CRHR and for listing in the Alameda County Register as an Alameda County Landmark or Structure of Merit, due to a lack of historical and architectural significance. Please refer to the attached DPR Forms for additional description, historical context, and full historical evaluation of each transmission line segment, provided in Attachment 5

Archaeological Resources

The following section summarizes the results of all background research and fieldwork as they pertain to archaeological resources that may qualify as historical resources and/or unique archaeological resources.

December 18, 2024 Field Survey

This field survey covered the segment of the Greenville Road right-of-way between Tesla Road and the Martinelli Center Martinelli Center parcel (APN-99A-1602-13-1). Ground visibility was poor throughout the project site with approximately 20 percent exposure. Ground exposure along Greenville Road was limited to the shoulders of the paved surface where soils consisted of a dark brown medium-grained sandy silt (Attachment 1: Photograph 1 and Photograph 2). Soils underneath the bridge as part of the Arroyo Seco consisted of a light yellow-brown, fine-grained sandy silt. The project area along Greenville Road has been previously disturbed from road installation and maintenance, underground utility

installation, and agricultural activities. Vegetation in this portion of the project site consists of riparian weeds, seasonal grasses, non-native trees, and vineyards.

The project site within the Martinelli Center has been previously disturbed from the construction of the main event center building and the agricultural field building, an associated parking lot, landscaped walking paths and lawns, transmission towers, and adjacent vineyards (Attachment 1: Photograph 3 and Photograph 4). Soils within the Martinelli Center and adjacent vineyards consisted of a dark brown fine-grained silty loam. Soils northwest of the agricultural field building consisted of a light brown medium-grained sandy loam. Imported gravel and sand comprised the pathway circling the Martinelli Center. Vegetation included star thistle, ornamental trees and shrubs, seasonal grasses and weeds, and the existing vineyard rows. No archaeological resources were identified during the field survey.

February 12, 2025 Field Survey

This field survey covered the approximately 3-acre portion of the parcel to the north (APN 99A-1602-5-3). Ground visibility was poor to fair throughout the project area with approximately 10 to 40 percent exposure. Soils consisted of a dark brown gravelly silty loam on a slope of 20 to 40 percent (Attachment 1: Photograph 5 and Photograph 6). Modern refuse and concrete and metal debris were observed. The project area has been previously disturbed due modern agricultural activities, grading, underground utility installation, and construction and maintenance of the adjacent Greenville Road. Vegetation in this portion of the project site consists of vineyards, seasonal grasses, and non-native trees. No archaeological resources were identified during the field survey.

Conclusions and Recommendations

The impact analysis included here is organized based on the cultural resources questions included in CEQA Guidelines Appendix G: Environmental Checklist Form:

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?
b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?
c. Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Question A broadly refers to historical resources. To more clearly differentiate between archaeological and built environment resources, we have chosen to limit analysis under Question A to built environment resources. Archaeological resources, including those that may be considered historical resources pursuant to Section 15064.5 and those that may be considered unique archaeological resources pursuant to Section 21083.2, are considered under Question B.

Historical Built Environment Resources

The field survey and background research identified three built environment resources in the project site: the Arroyo Seco Bridge (Bridge No. 33C0240), a segment of the Tesla-Newark No.1 transmission line, and a segment of the Tesla-Newark No. 2 transmission line. As detailed above, the Arroyo Seco Bridge was previously recommended ineligible for the NRHP in 2021 by Caltrans. The bridge is recommended ineligible for listing in the CRHR and the Alameda County Register due to a lack of historical and architectural significance. As such, the property does not qualify as a historical resource pursuant to CEQA. Additionally, the segments of the Tesla-Newark No.1 and Tesla-Newark No. 2 transmission lines within the project site are recommended ineligible for listing in the CRHR and

Alameda County Register due to a lack of historical and architectural significance. As such, none of the evaluated resources qualify as a historical resource pursuant to CEQA. There are no known historical resources within the project site. Therefore, the proposed project would not result in a substantial adverse change to the significance of a historical resource and result in ***no impact to historical resources*** pursuant to CEQA.

Historical and Unique Archaeological Resources

No prehistoric or historic-period archaeological resources were identified within the project site as a result of the CHRIS records search, NAHC SLF search, or pedestrian survey. While cultural sensitivity may be slightly increased due to the proximity of one main fresh water source (Arroyo Seco), which would have been a vital resource for prehistoric and historic people. The absence of substantial prehistoric or historic-period archaeological resources within the immediate vicinity, along with the existing level of disturbance in the project site, suggest there is a low potential for encountering intact subsurface archaeological resources that may qualify as historical resources or unique archaeological resources pursuant to CEQA. However, unanticipated discoveries during construction remain a possibility. Rincon recommends implementation of standard conditions for unanticipated discoveries during construction, outlined below. With adherence to this measure, Rincon recommends a finding of **less-than-significant impact with mitigation for archaeological resources** under CEQA.

Unanticipated Discovery of Cultural Resources

In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the resource. If the resource is determined by the qualified archaeologist to be prehistoric, then a Native American representative shall also be contacted to participate in the evaluation of the resource. If the qualified archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for CRHR eligibility shall be completed. If the resource proves to be eligible for the CRHR and significant impacts to the resource cannot be avoided via project redesign, a qualified archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, per the requirements of CCR Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, the qualified archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. The County shall review and approve the treatment plan and archaeological testing as appropriate, and the resulting documentation shall be submitted to the regional repository of the California Historical Resources Information System, per CCR Guidelines Section 15126.4(b)(3)(C).

Human Remains

No human remains are known to be present within the project site. However, the discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be of Native American origin, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD has 48 hours from being granted site access to

make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance. With adherence to existing regulations, Rincon recommends a finding of ***less than significant impact to human remains*** under CEQA.

Should you have any questions concerning this study, please do not hesitate to contact the undersigned at kabdo@rinconconsultants.com.

Sincerely,
Rincon Consultants, Inc.



Josh Bevan, AICP, MSHP
Architectural Historian



Kholood Abdo, MA, RPA
Senior Archaeologist – Project Manager



Catherine Johnson, PhD, RPA
Archaeologist



Shannon Carmack
Cultural Resources Principal

Attachments

Attachment 1 Figures and Site Photographs
Attachment 2 California Historical Resources Information System Records Search Results
Attachment 3 Native American Heritage Commission Sacred Lands File Search Results
Attachment 4 California Department of Parks and Recreation (DPR) Series 523 Forms

References

Alameda County

2024 Alameda County Code of Ordinances. Title 17 Zoning. Chapter 17.62 Historic Preservation Ordinance. Electronic resource. https://library.municode.com/ca/alameda_county/codes/code_of_ordinances?nodeId=TIT17ZO_CH17.62HIPROR_17.62.040CURESU (accessed November 2024.

Basin Research Associates, Inc.

2000 Cultural Resources Assessment, PG&E Proposed Tri-Valley 2002 Electric Power Capacity Increase Project. Report S-024986 on file at the Northwest Information Center, Sonoma State University, Rohnert Park, California.

Brown, Kyle, Adam Marlow, Thomas Young, James Alan, and William Self

2004 Cultural Resources Assessment of the South Bay Aqueduct Improvement and Enlargement Project, Alameda County, California. William Self Associates, Inc. Report S-029590 on file at the Northwest Information Center, Sonoma State University, Rohnert Park, California.

2006 Final Cultural Resources Assessment of the South Bay Aqueduct Improvement and Enlargement Project, Alameda County, California. William Self Associates, Inc. Report S-029590a on file at the Northwest Information Center, Sonoma State University, Rohnert Park, California.

Busby, Colin I., Donna M. Garaventa, Stuart A. Guedon, James C. Bard, Melody E. Tannam, Sondra A. Jarvis, and Lisa A. Pujol

1990 A Cultural Resources Overview and Historic Preservation Regulatory Analysis of Sandia National Laboratories Livermore Facility, Alameda County, California. Basin Research Associates, Inc. Report S-012885 on file at the Northwest Information Center, Sonoma State University, Rohnert Park, California.

Busby, Colin I., Donna M. Garaventa, Robert M. Harmon, Stuart A. Guedon, James C. Bard, Melody E. Tannam, Sondra A. Jarvis, Angela M. Banet, Michael R. Fong, Conrad F. Praetzel, Lisa A. Pujol, and Steven J. Rossa

1990 A Cultural Resources Assessment of Sandia National Laboratories Livermore Facility, Alameda County, California. Basin Research Associates, Inc. Report S-012885a on file at the Northwest Information Center, Sonoma State University, Rohnert Park, California.

California Office of Historic Preservation

1995 *Instructions for Recording Historical Resources*. Department of Parks and Recreation, Sacramento, California.

2011 "California Register and National Register: A Comparison (for purposes of determining eligibility for the California Register)," *California Office of Historic Preservation Technical Assistance Series #6*. Department of Parks and Recreation, Sacramento, California

Dibblee, T.W. and J.A. Minch

2006 Geologic Map of the Altamont Quadrangle, Alameda County, California: Dibblee Geological Foundation, Dibblee Foundation Map DF-197, scale 1:24,000.

Donaldson, Milford W.

2007 Proposed Dyer Dam and Reservoir Geoarchaeological Report, File No. COE 60508A; Regulatory Branch (200400765) Section 106 Consultation (Rnd.03) on the Proposed South Bay Aqueduct Improvement, Alameda County, California, Report S-029590c on file at the Northwest Information Center, Sonoma State University, Rohnert Park, California.

Hatoff, Brian, Barb Voss, Sharon Waechter, and Vance Benté

1995 Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project. Woodward-Clyde Consultants. Report S-017993 on file at the Northwest Information Center, Sonoma State University, Rohnert Park, California.

Killingsworth, Steve

2006 Geologic Report South Bay Aqueduct Enlargement Dyer Dam and Reservoir; Project Geology Report D-180. State of California, The Resources Agency, Department of Water Resources, Division of Engineering. Report S-029590b on file at the Northwest Information Center, Sonoma State University, Rohnert Park, California.

NETR HistoricAerials.com (NETR Online)

2025 Historical aerials of bridge location and vicinity for years 1971, 1974, 2002, 2005, 2009, 2022. https://www.historicaerials.com/viewer (accessed February 2025).

Pacific Gas & Electric Company (PG&E)

1922a Map of PG&E's facilities in *Pacific Service Magazine* June 1922 Vol 14 No.1. https://archive.org/details/pacificservicema1423paci/page/98/mode/2up (accessed February 2025).

1922b Advertisement featuring steel lattice tower in *Pacific Service Magazine*, October 1922, Vol. 14, No 5. https://archive.org/details/pacificservicema1423paci/page/n211/mode/2up (accessed February 2025).

2020 *Pacific Gas & Electric Company Historic-Era Electrical Infrastructure Management Plan (HEIMP)*. April 2020. Prepared by Polly Seddon Allen, Matt Walker, and Iris Eschen – Cardno with contributions from Stephanie Cimino, Leslie Sakowicz, Kathleen Forrest – PG&E, and Susan Lassell and David Lemon – ICF.

Thompson & West

1878 Map No. 8 in *Historical Atlas of Alameda County*. Oakland, CA: Thompson & West. David Rumsey Map Collection, online. https://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~21372~620074:Alameda-Co--8-?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No&qvq=q:thompson%20and%20west%20alameda%20county;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No;lc:RUMSEY~8~1&mi=26&trs=115 (accessed December 2024).

University of California, Santa Barbara

1940 FrameFinder historical aerial photograph online database. Fairchild Aerial Surveys. Flight but-1940, Frame 340-57. https://mil.library.ucsb.edu/ap_indexes/FrameFinder/ (Accessed November 2024).

1965 FrameFinder historical aerial photograph online database. Cartwright Aerial Surveys. Flight cas-65-130, Frame 18-24. https://mil.library.ucsb.edu/ap_indexes/FrameFinder/ (Accessed November 2024).

United States Department of Agriculture

2025 Natural Resources Conservation Service Web Soil Survey. Accessed February 2025.https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

1997 Azule Series. Electronic resource. Accessed February 2025. https://soilseries.sc.egov.usda.gov/OSD_Docs/A/AZULE.html.

2014 Positas Series. Electronic resource. Accessed February 2025. https://soilseries.sc.egov.usda.gov/OSD_Docs/P/POSITAS.html.

2018 Zamora Series. Electronic resource. Accessed February 2025 https://soilseries.sc.egov.usda.gov/OSD_Docs/Z/ZAMORA.html .

United States Geological Survey

1907 *Tesla, California*, 1:62,500 Topographic Map. Accessed February 2025. https://ngmdb.usgs.gov/topoview/viewer/#15/37.6747/-121.6978.

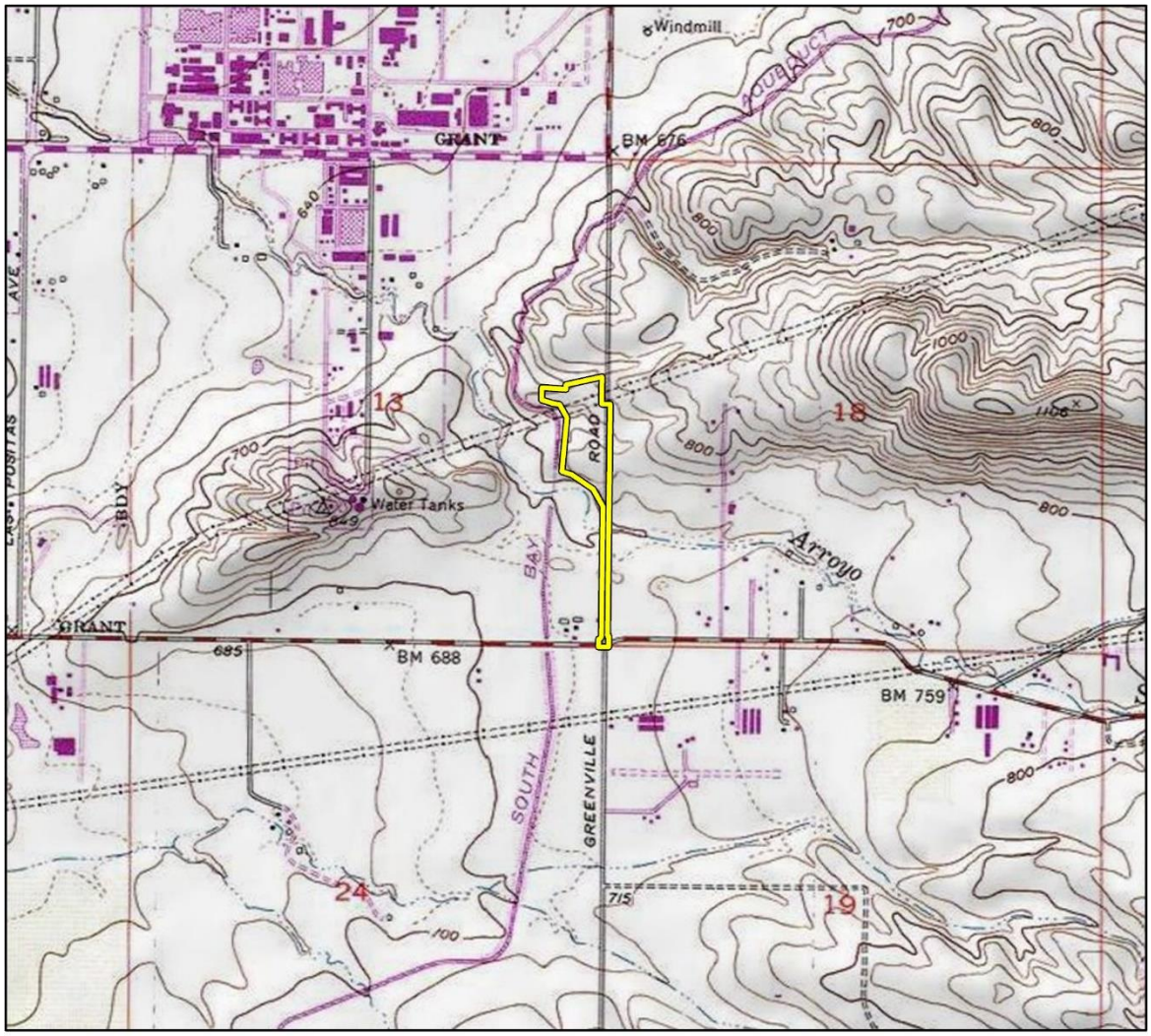
1942 *Tesla, California*, 1:62,500 Topographic Map. Accessed February 2025. https://ngmdb.usgs.gov/topoview/viewer/#14/37.6655/-121.7077.

1953 *Altamont, California*, 1: 24000 Topographic Map. Accessed February 2025. https://ngmdb.usgs.gov/topoview/viewer/#14/37.6598/-121.7154.

Attachment 1

Figures and Site Photographs

Figure 1 Regional Location Map



Basemap provided by National Geographic Society, Esri and their licensors © 2025. Altamont Quadrangle. T03S R02E S13,24; T03S R03E S18,19. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

Project Location

0 1,000 2,000 Feet

N

23-15365 CR
Fig X Project Location Topo

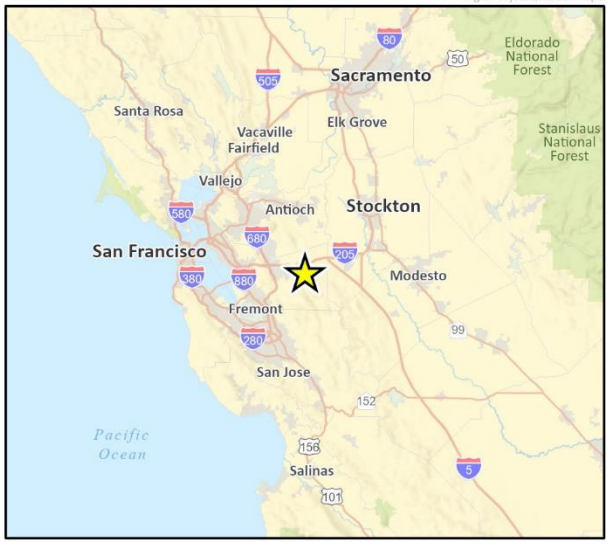


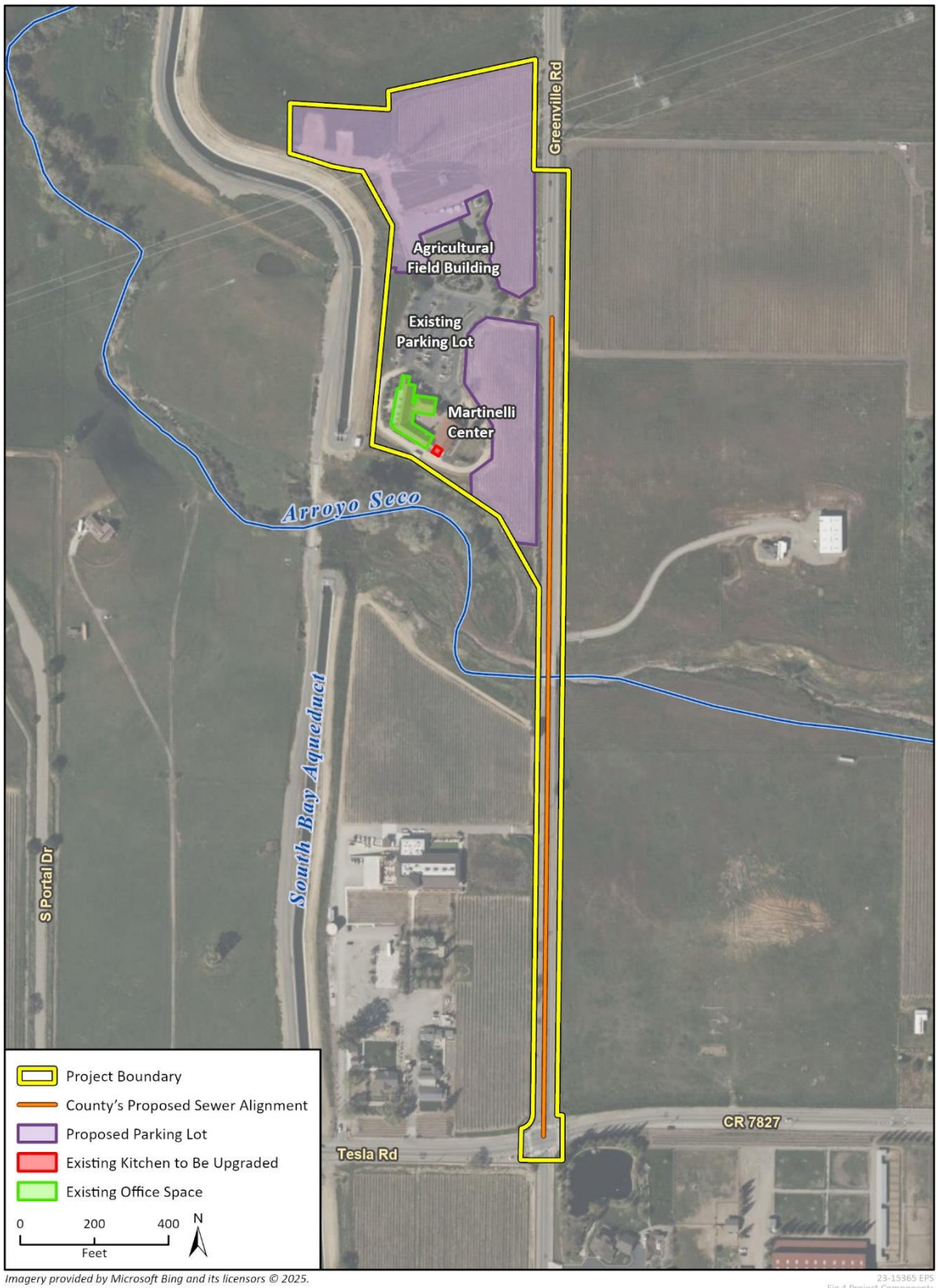
Figure 2 Project Location Map



Imagery provided by Microsoft Bing and its licensors © 2025.
Additional data provided by NHD, 2024.

23-15365 CR
Fig X Project Location

Figure 3 Project Components Map



Imagery provided by Microsoft Bing and its licensors © 2025.
Additional data provided by NHD, 2024.

23-15365 EPS
Fig 4 Project Components

Figure 4 Atlas Map Depicting Vicinity of Project Site, 1876. A yellow outline approximates the project site's location (Thompson & West 1876, Annotated by Rincon)

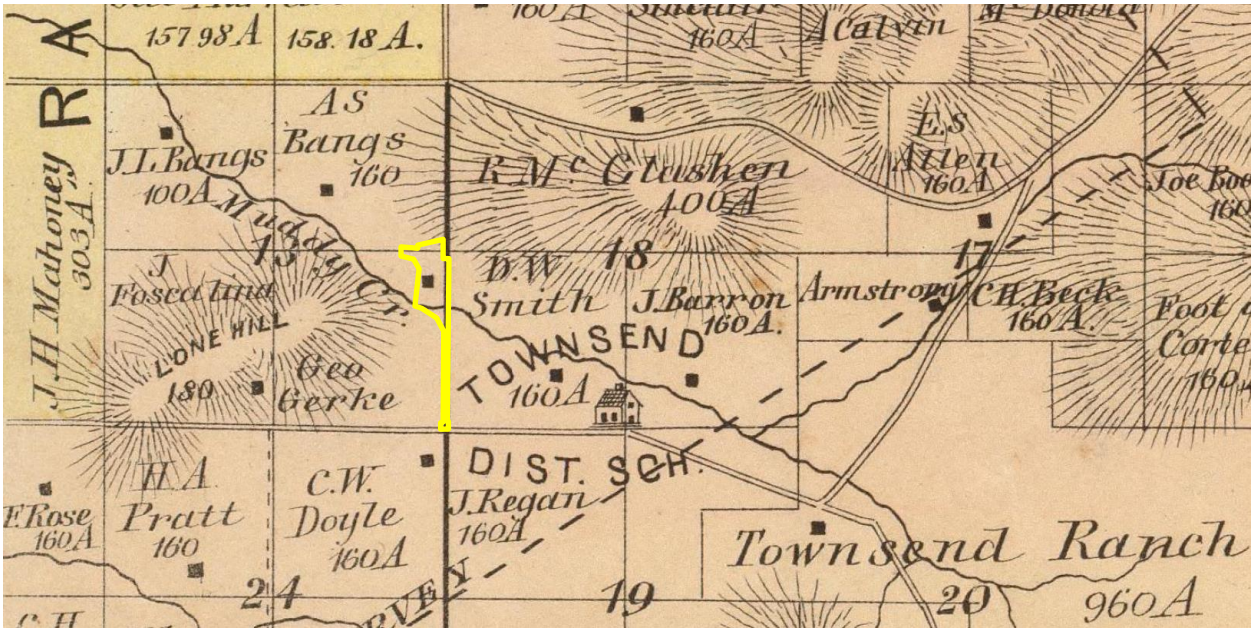
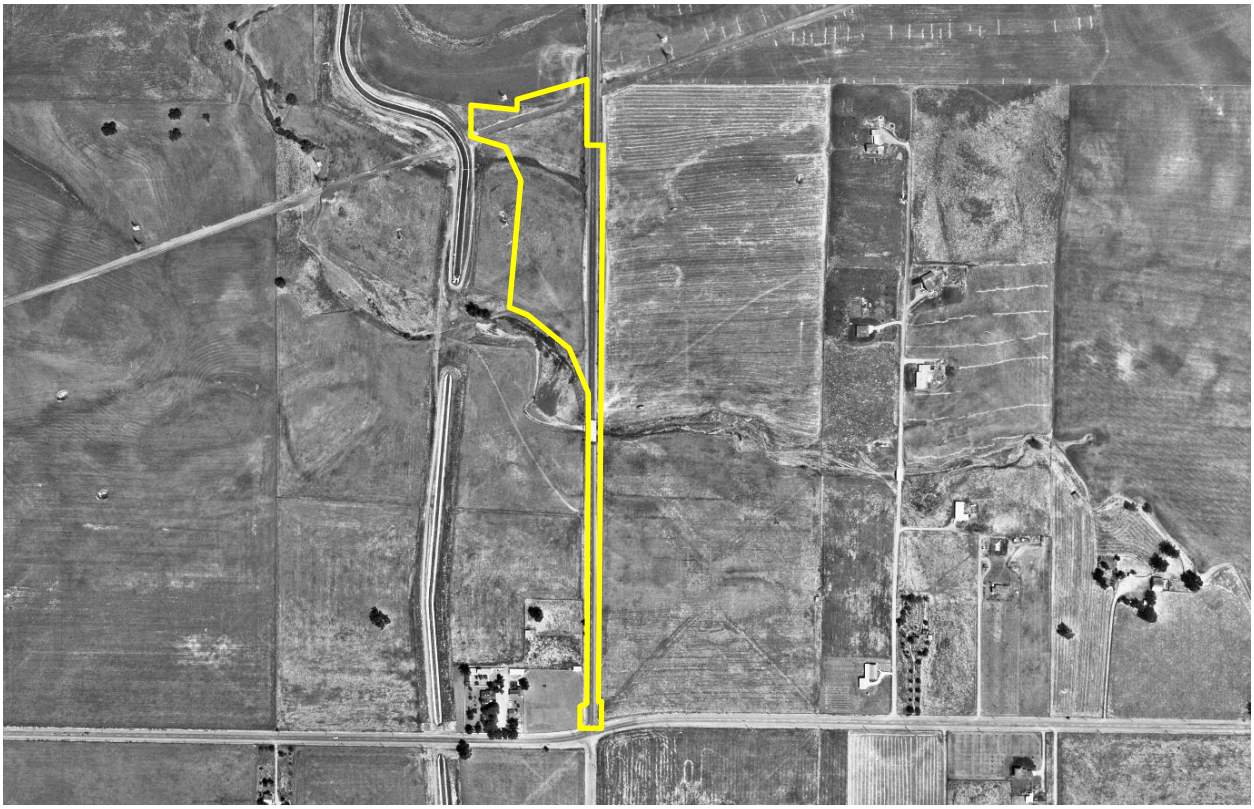


Figure 5 Aerial Photograph Depicting Vicinity of Project Site, 1940. A yellow outline approximates the project site's location (UCSB 1940, Annotated by Rincon)



Figure 6 Aerial Photograph Depicting Vicinity of Project Site, 1965. A yellow outline approximates the project site's location (UCSB 1965, Annotated by Rincon)





Photograph 1. Greenville Road, Facing South, Arroyo Seco Bridge at Center.



Photograph 2. Greenville Road, Facing North, Arroyo Seco Bridge at Center and Martinelli Center at Background-Left.



Photograph 3. Overview Project Site and Transmission Line Segments at Martinelli Center, Facing Southwest.



Photograph 4. Martinelli Center Vineyards, Facing South.



Photograph 5. Northern Vineyards, Facing South.



Photograph 6. Ground Surface Soils within the Northern Vineyards.

Attachment 2

California Historical Resources Information System Records Search Results

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-012285	Submitter - Document Number 84-9691; Voided - S-12288	1990	Colin I. Busby, Donna M. Garaventa, Stuart A. Guedon, James C. Bard, Melody E. Tannam, Sondra A. Jarvis, and Lisa A. Pujol	A Cultural Resources Overview and Historic Preservation Regulatory Analysis of Sandia National Laboratories Livermore Facility, Alameda County, California	Basin Research Associates, Inc.	
S-012285a		1990	Colin I. Busby, Donna M. Garaventa, Robert M. Harmon, Stuart A. Guedon, James C. Bard, Melody E. Tannam, Sondra A. Jarvis, Angela M. Banet, Michael R. Fong, Conrad F. Praetzel, Lisa A. Pujol, and Steven J. Rossa	A Cultural Resources Assessment of Sandia National Labratories Livermore Facility, Alameda County, California	Basin Research Associates, Inc.	
S-017993		1995	Brian Hatoff, Barb Voss, Sharon Waechter, Stephen Wee, and Vance Bente	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project	Woodward-Clyde Consultants	01-000231, 01-001775, 01-001776, 01-001783, 01-002190, 01-010620, 01-010629, 01-011603, 07-000091, 07-000402, 07-000438, 07-000487, 07-000488, 07-000489, 07-000490, 07-000499, 07-000500, 07-000501, 07-000502, 07-000504, 07-000806, 07-000813, 07-002402, 07-002695, 35-000334, 38-000007, 41-000009, 41-000165, 41-000169, 41-000172, 41-000310, 41-000311, 41-000410, 41-000411, 41-000412, 41-000413, 41-000414, 41-000415, 41-000416, 41-000417, 41-000418, 41-000419, 41-000420, 41-000421, 41-000422, 41-000423, 41-000424, 41-000425, 41-000456, 41-000632, 41-000808, 43-000623, 43-000649, 43-000650, 43-000903, 43-000928, 48-000179, 48-000180, 48-000207, 48-000208, 48-000549, 48-000955
S-017993a		1995		Proposed Mojave Northward Expansion Project: Appendix A - Native American Consultation	Woodward-Clyde Consultants	
S-017993b		1995		Proposed Mojave Northward Expansion Project: Appendix B - Looping Segments - Class 1	Woodward-Clyde Consultants	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-017993c		1995		Proposed Mojave Northward Expansion Project: Appendix C -Monitoring and Emergency Discovery Plan	Woodward-Clyde Consultants	
S-017993d		1995		Proposed Mojave Northward Expansion Project: Appendix D - General Construction Information	Woodward-Clyde Consultants	
S-017993e		1995		Proposed Mojave Northward Expansion Project: Appendix E - Archaeological Site Records	Woodward-Clyde Consultants	
S-017993f		1995		Proposed Mojave Northward Expansion Project: Appendix F - Historic Features Evaluation Forms	Woodward-Clyde Consultants	
S-017993g		1995		Proposed Mojave Northward Expansion Project: Appendix G - Railroad Crossing Evaluation Forms	Woodward-Clyde Consultants	
S-017993h		1995		Proposed Mojave Northward Expansion Project: Appendix H - Crossing Diagrams and Plan View Maps	Woodward Clyde Consultants	
S-017993I		1995		Proposed Mojave Northward Expansion Project: Appendix I - Railroad Depot NRHP Nomination Forms and Related Records	Woodward-Clyde Consultants	
S-017993j		1995		Proposed Mojave Northward Expansion Project: Appendix J - Looping Segment and Compressor Station Site Records	Woodward-Clyde Consultants	
S-017993k		1995		Proposed Mojave Northward Expansion Project: Appendix K - Historic Site Records / Isolate Forms	Woodward-Clyde Consultants	
S-017993l		1995		Proposed Mojave Northward Expansion Project: Appendix L - Photodocumentation	Woodward-Clyde Consultants	
S-017993m		1995		Proposed Mojave Northward Expansion Project: Appendix M - Curricula Vitae of Key Preparers	Woodward-Clyde Consultants	
S-024986		2000		Cultural Resources Assessment, PG&E Proposed Tri-Valley 2002 Electric Power Capacity Increase Project	Basin Research Associates, Inc.	01-000193, 07-000271, 07-000273
S-029590	OHP PRN - COE 60508A	2004	Kyle Brown, Adam Marlow, Thomas Young, James Allan, and Wiilam Self	Cultural Resource Assessment of the South Bay Aqueduct Improvement and Enlargement Project, Alameda County, California.	William Self Associates, Inc.	01-000159, 01-000174, 01-001770, 01-001772, 01-002128, 01-002131, 01-010629, 01-010702, 01-010703, 01-010704

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-029590a		2006	Kyle Brown, Adam Marlow, Thomas Young, James Allan, and William Self	Final Cultural Resource Assessment of the South Bay Aqueduct Improvement and Enlargement Project, Alameda County, California.	William Self Associates, Inc.	
S-029590b		2006	Steve Killingsworth and G. Robert Barry	Geologic Report South Bay Aqueduct Enlargement Dyer Dam and Reservoir; Project Geology Report D-180	State of California, The Resources Agency, Department of Water Resources, Division of Engineering	
S-029590c		2007	Milford W. Donaldson	Proposed Dyer Dam and Reservoir Geoarchaeological Report, File No. COE 60508A; Regulatory Branch (200400765) Section 106 Consultation (Rnd.03) on the Propossed South Bay Aqeduct Improvement, Alameda County, California	Office of Historic Preservation	

Attachment 3

Native American Heritage Commission Sacred Lands File Search Results

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Reginald Pagaling
Chumash

VICE-CHAIRPERSON
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

SECRETARY
Sara Dutschke
Miwok

PARLIAMENTARIAN
Wayne Nelson
Luiseño

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Stanley Rodriguez
Kumeyaay

COMMISSIONER
Laurena Bolden
Serrano

COMMISSIONER
Reid Milanovich
Cahuilla

COMMISSIONER
Bennae Calac
Pauma-Yuima Band of Luiseño Indians

ACTING EXECUTIVE SECRETARY
STEVEN QUINN

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov

November 5, 2024

Catherine Johnson
Rincon Consultants, Inc.

Via Email to: cjohnson@rinconconsultants.com

Re: 23-15365 Greenville Road Sewer Extension Project, Alameda County

To Whom It May Concern:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Mathew.Lin@nahc.ca.gov

Sincerely,

Mathew Lin

Mathew Lin
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Alameda County
11/5/2024

County	Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
Alameda	Amah Mutsun Tribal Band	N	Valentin Lopez, Chairperson	P.O. Box 5272 Galt, CA, 95632	(916) 743-5833		vjltestingcenter@aol.com	Costanoan Northern Valley Yokut	Alameda,Calaveras,Contra Costa,Fresno,Madera,Mariposa,Merced,Monterey,San Benito,San Francisco,San	7/20/2023
	Amah Mutsun Tribal Band	N	Ed Ketchum, Vice-Chairperson		(530) 578-3864		aerieways@aol.com	Costanoan Northern Valley Yokut	Alameda,Calaveras,Contra Costa,Fresno,Madera,Mariposa,Merced,Monte	7/20/2023
	Amah Mutsun Tribal Band of Mission San Juan Bautista	N	Christopher Zimmer, Senior Cultural Monitor & Consultant, Councilman	PO Box 214211, 2929 Fulton Ave Unit 19 Sacramento, CA, 95821	(650) 520-8418		cdzimmer93@gmail.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	10/8/2024
	Amah Mutsun Tribal Band of Mission San Juan Bautista	N	Garry Zimmer, Senior Cultural Monitor & Consultant	PO Box 214211, 2929 Fulton Ave Unit 19 Sacramento, CA, 95821	(408) 771-8901		garryzimmer@gmail.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	10/8/2024
	Amah Mutsun Tribal Band of Mission San Juan Bautista	N	Shelby Brown, Senior Cultural Monitor & Consultant, Councilwoman	2451 Tyrolean Way Sacramento, CA, 95821	(916) 276-8380		shelbyzimmer1997@gmail.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	10/8/2024
	Amah Mutsun Tribal Band of Mission San Juan Bautista	N	Michelle Zimmer, Senior Cultural Monitor & Consultant	PO Box 214211, 2929 Fulton Ave Unit 19 Sacramento, CA, 95821	(916) 730-9468		michellezimmer1966@gmail.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	10/8/2024
	Amah MutsunTribal Band of Mission San Juan Bautista	N	Irenne Zwierlein, Chairperson	3030 Soda Bay Road Lakeport, CA, 95453	(916) 730-9468		amahmutsuntribalcommunications@gmail.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	10/8/2024
	Confederated Villages of Lisjan Nation	N	Deja Gould, Language Program Manager	10926 Edes Ave Oakland, CA, 94603	(510) 575-8408		cvltribe@gmail.com	Bay Miwok Ohlone Delta Yokut	Alameda,Contra Costa,Sacramento,San Joaquin,Santa Clara,Solano,Stanislaus	3/22/2023
	Confederated Villages of Lisjan Nation	N	Corrina Gould, Chairperson	10926 Edes Avenue Oakland, CA, 94603	(510) 575-8408		cvltribe@gmail.com	Bay Miwok Ohlone Delta Yokut	Alameda,Contra Costa,Sacramento,San Joaquin,Santa Clara,Solano,Stanislaus	3/22/2023
	Confederated Villages of Lisjan Nation	N	Cheyenne Gould, Tribal Cultural Resource Manager	10926 Edes Ave Oakland, CA, 94603	(510) 575-8408		cvltribe@gmail.com	Bay Miwok Ohlone Delta Yokut	Alameda,Contra Costa,Sacramento,San Joaquin,Santa Clara,Solano,Stanislaus	3/22/2023
	Costanoan Rumsen Carmel Tribe	N	Henry Muñoz, Cultural Resource Officer	108 South Acacia Rialto, CA, 92376	(909) 254-1610		crct.crd@gmail.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	7/17/2024
	Costanoan Rumsen Carmel Tribe	N	Carla Munoz, Tribal Council		(415) 690-3110		crct.crd@gmail.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa	7/17/2024
	Costanoan Rumsen Carmel Tribe	N	Samuel Rodriguez, Cultural Resource Officer	29539 Oakbridge Dr Menifee, CA, 92586	(760) 681-6860		crct.crd@gmail.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	7/17/2024
	Indian Canyon Mutsun Band of Costanoan	N	Kanyon Sayers-Roods, MLD Contact	1615 Pearson Court San Jose, CA, 95122	(408) 673-0626		kanyon@kanyonkonsulting.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	3/15/2024
	Indian Canyon Mutsun Band of Costanoan	N	Ann Marie Sayers, Chairperson	P.O. Box 28 Hollister, CA, 95024	(831) 637-4238			Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	3/15/2024
	Muwekma Ohlone Tribe of the SF Bay Area	N	Richard Massiatt, Councilmember/MLD Tribal Rep.	1169 S. Main Street, Ste. 336 Manteca, CA, 95377	(209) 321-0372		rmassiatt@muwekma.org	Costanoan	Alameda,Contra Costa,Marin,Merced,Napa,Sacramento,San Francisco,San Joaquin,San Mateo,Santa	3/28/2024
	Muwekma Ohlone Tribe of the SF Bay Area	N	Charlene Nijmeh, Chairperson	1169 S. Main Street, Ste. 336 Manteca, CA, 95377	(408) 464-2892		cnijmeh@muwekma.org	Costanoan	Alameda,Contra Costa,Marin,Merced,Napa,Sacramento,San Francisco,San Joaquin,San Mateo,Santa	3/28/2024
	Northern Valley Yokut / Ohlone Tribe	N	Katherine Perez, Chairperson	P.O. Box 717 Linden, CA, 95236	(209) 649-8972		canutes@verizon.net	Costanoan Northern Valley Yokut	Alameda,Calaveras,Contra Costa,Fresno,Madera,Mariposa,Merced,Sacramento,San Benito,San Joaquin,Santa	4/30/2024
	Northern Valley Yokut / Ohlone Tribe	N	Timothy Perez, Tribal Compliance Officer	P.O. Box 717 Linden, CA, 95236	(209) 662-2788		huskanam@gmail.com	Costanoan Northern Valley Yokut	Alameda,Calaveras,Contra Costa,Fresno,Madera,Mariposa,Merced,Sacramento,San Benito,San Joaquin,Santa	11/21/2023
	The Ohlone Indian Tribe	N	Vincent Medina, Cultural Leader	17365 Via Del Rey San Lorenzo, CA, 94580	(510) 610-7587		vincent.d.medina@gmail.com	Bay Miwok Ohlone Patwin Plains Miwok	Alameda,Contra Costa,San Francisco,San Mateo,Santa Clara	7/24/2023
	The Ohlone Indian Tribe	N	Desiree Vigil, THPO	259 Winwood Avenue Pacifica, CA, 94044	(650) 290-0245		dirwin0368@yahoo.com	Bay Miwok Ohlone Patwin Plains Miwok	Alameda,Contra Costa,San Francisco,San Mateo,Santa Clara	11/30/2023
	The Ohlone Indian Tribe	N	Andrew Galvan, Chairperson	P.O. Box 3388 Fremont, CA, 94539	Phone: (510) 882-0527	(510) 687-9393	chochenyo@AOL.com	Bay Miwok Ohlone Patwin Plains Miwok	Alameda,Contra Costa,San Francisco,San Mateo,Santa Clara	7/24/2023
	Wilton Rancheria	F	Cultural Preservation Department,	9728 Kent Street Elk Grove, CA, 95624	(916) 683-6000		cpd@wiltonrancheria-nsn.gov	Nisenan Miwok	Alameda,Alpine,Amador,Contra Costa,El Dorado,Mono,Nevada,Placer,Sacramento,San Joaquin,Solano,Stanislaus,Sutter,Yolo,Yuba	8/7/2023
	Wilton Rancheria	F	Herbert Griffin, Executive Director of Cultural Preservation	9728 Kent Street Elk Grove, CA, 95624	(916) 683-6000		hgriffin@wiltonrancheria-nsn.gov	Nisenan Miwok	Alameda,Alpine,Amador,Contra Costa,El Dorado,Mono,Nevada,Placer,Sacramento,San Joaquin,Solano,Stanislaus,Sutter,Yolo,Yuba	8/7/2023
	Wuksachi Indian Tribe/Eshom Valley Band	N	Kenneth Woodrow, Chairperson	1179 Rock Haven Ct. Salinas, CA, 93906	(831) 443-9702		kwood8934@aol.com	Foothill Yokut Mono	Alameda,Calaveras,Contra Costa,Fresno,Inyo,Kings,Madera,Marin,Mariposa,Merced,Mono,Monterey,San Benito,San	6/19/2023

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed 23-15365 Greenville Road Sewer Extension Project, Alameda County.

Record: PROJ-2024-005719
Report Type: List of Tribes
Counties: Alameda
NAHC Group: All

Attachment 4

California Department of Parks and Recreation (DPR) Series 523 Forms

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

 ***Resource Name or #:** Arroyo Seco Bridge (Bridge No. 33C0240)

P1. Other Identifier: None.

*__P2. Location:__ ☐__Not for Publication__ ☒__Unrestricted__

__*a. County__ Alameda __and *b. USGS 7.5' Quad__ *Altamont, Calif.* __Date__ 2023 __T__ 3S; __R__ 2E, 3E; __Sec__ 13 and 18 M.D.B.M

c. Address Greenville Road City Unincorporated Zip 94550

d. UTM: 10S, 614941.60 mE/ 4169858.21 mN e. Other Locational Data: This bridge is located on Greenville Road, approximately 0.2 miles north of Tesla Road, in the unincorporated vicinity of the City of Livermore.

*P3a. Description: The Arroyo Seco Bridge (Bridge No. 33C0240) spans Arroyo Seco, a typically dry creek bed, along Greenville Road in unincorporated Alameda County, to the immediate east-southeast of the City of Livermore (P5a. Photograph 1). The bridge was constructed in 1962 and is a continuous-span, reinforced-concrete deck beam bridge. The bridge is approximately 200-feet long from north to south and approximately 80-feet wide (Photograph 2 and Photograph 3). The bridge's deck is made of concrete and appears to be continuous with its structure, which features two concrete abutments on each end of the bridge. Metal guardrails are located on each side of the bridge and are bolted to steel beam posts that are mounted to the sides of the bridge span (Photograph 4 and Photograph 5). Beneath the bridge, several poured-in-place concrete columns extend from the underside of the bridge to the creek bed. These columns appear to be of more recent origin than the bridge's main concrete structure (and Photograph 6). The bridge appears to be in fair condition. Damage to the east guardrail was observed during survey. (Additional photographs on Page 4)

***P3b. Resource Attributes:** HP19. Bridge

***P4. Resources Present:** ☐Building ☒Structure ☐Object ☐Site ☐District ☐Element of District ☐Other

P5a. Photograph 1



P5b. Description of Photograph 1: Arroyo Seco Bridge, viewed from Greenville Road, facing north. December 18, 2024.

P6. Date Constructed/Age and Source: 1962 (California Department of Transportation [Caltrans] 2021)
☒ Historic

***P7. Owner and Address:** Alameda County

***P8. Recorded by:**
Anita Song, Archeological Field Technician
Rincon Consultants, Inc.
66 Franklin Street, Suite 300
Oakland, CA 94607

***P9. Date Recorded**: December 18, 2019

***P10. Survey Type:**
Intensive Pedestrian

***P11. Report Citation**: *Cultural Resources Assessment for the Greenville Road Sewer Extension Project, Unincorporated Alameda County, California*. Rincon Project 23-15365.

***Attachments:** ☐ NONE ☒Location Map ☒Continuation Sheet ☒Building, Structure, and Object Record
☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photograph Record ☐Sketch Map ☐Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** 6Z

***Resource Name or #** Arroyo Seco Bridge (Bridge No. 33C0240)

B1. Historic Name: Arroyo Seco Bridge
B2. Common Name: Arroyo Seco Bridge
B3. Original Use: Bridge
B4. Present Use: Bridge
***B5. Architectural Style:** Bridge
***B6. Construction History:**
Constructed in 1962
Concrete columns beneath the bridge appear to be of more recent origin than 1962
Cylindrical, poured-in-place concrete columns below the bridge deck appear to post-date 1962 construction.

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** Click here to enter a date. **Original Location:**

***B8. Related Features:** None.

B9a. Architect: Unidentified b. Builder: California Department of Transportation (attributed)
***B10. Significance:** Bridges in California **Area:** Alameda County
Period of Significance None. **Property Type** Bridge **Applicable Criteria** None.

(Continued on Page 5)

B11. Additional Resource Attributes: None.

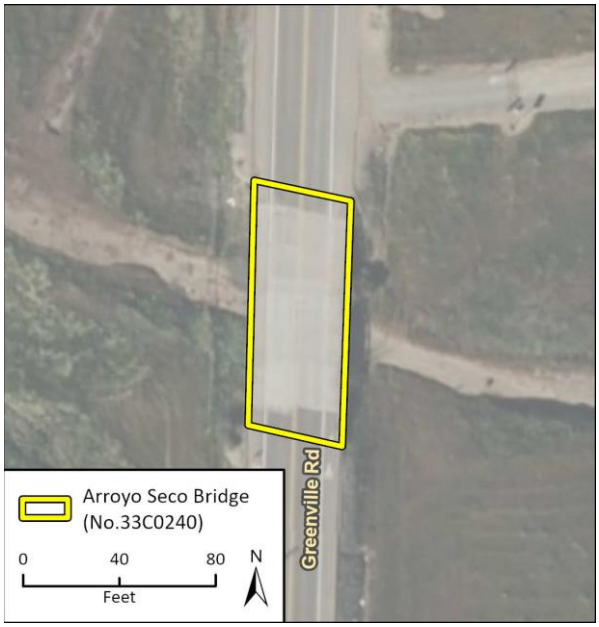
***B12. References:** See Continuation Sheets, Page 6

B13. Remarks: This bridge was previously evaluated by California Department of Transportation (Caltrans) as ineligible for the National Register of Historic Places; however, the previous evaluation record was not available for this study. The 2021 evaluation of ineligibility is referenced in Caltrans' Structure Maintenance & Inventory, on file with Rincon Consultants (Caltrans 2021).

***B14. Evaluator:** Josh Bevan, AICP, MSHP – Rincon Consultants, Inc.

***Date of Evaluation:** April 4, 2025

(This space reserved for official comments.)



*Required information

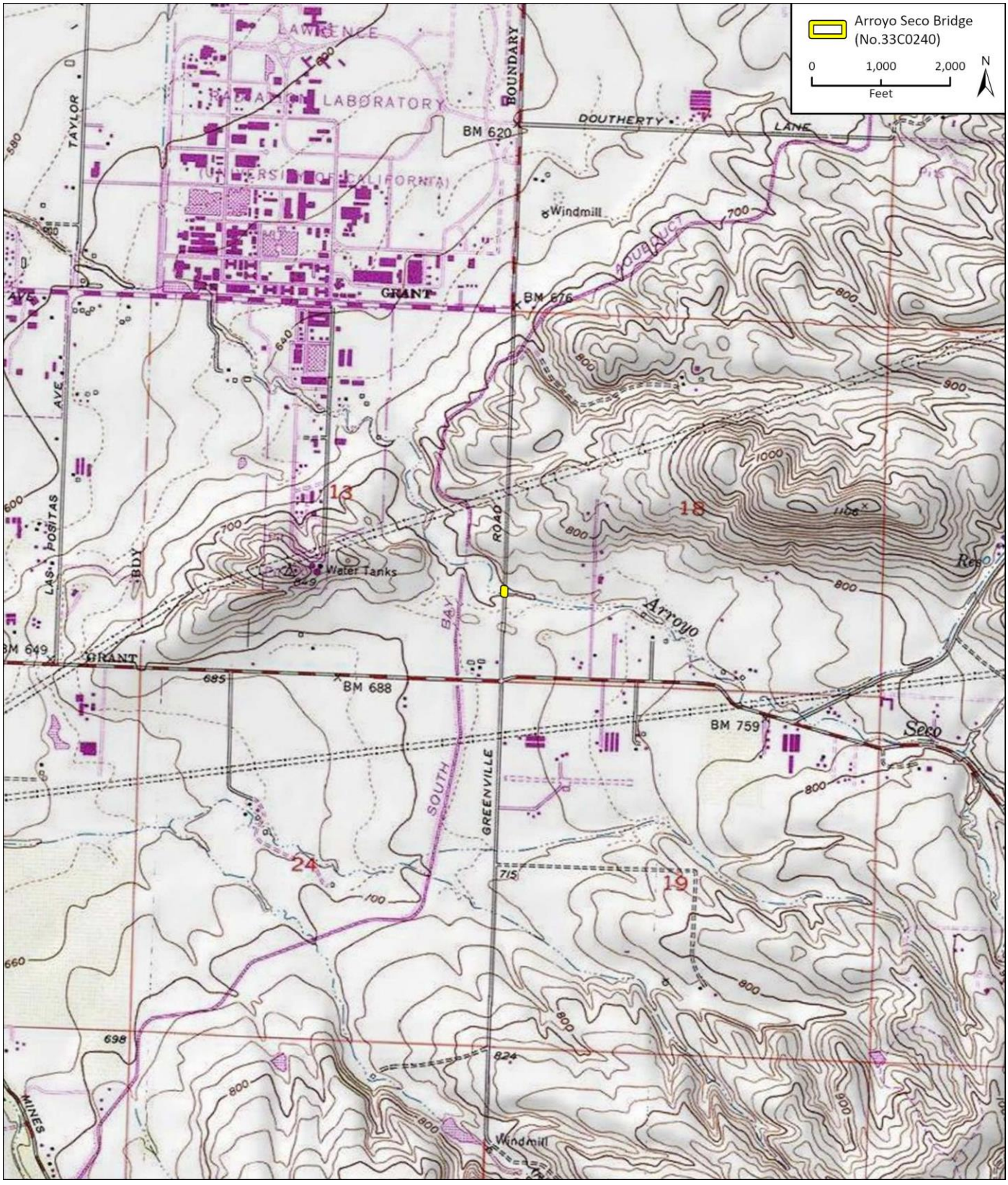
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

***Resource Name or #** Arroyo Seco Bridge (Bridge No. 33C0240)

***Map Name:** *Altamont, California Quadrangle* ***Scale:** 1:24,000 ***Date of map:** 2024



* Required information

P4a. Description (Continued from Page 1):



Photograph 2. View of bridge facing west, with Arroyo Seco in right-foreground.



Photograph 3. View of bridge's concrete deck and adjacent asphalt roadway, facing northeast



Photograph 4. View of metal guardrails present on each side of bridge, facing southeast



Photograph 5. View of bridge's concrete structure of railing, facing northwest



Photograph 6. View beneath bridge with formed concrete columns embedded into creek bed, facing southwest

B10. Significance (Continued from Page 2):

Development History

The Arroyo Seco Bridge is oriented north-south along Greenville Road, which generally runs along a land section line in the immediate vicinity of the bridge. By the mid-1870s, a road along the alignment of present-day Greenville Road does not appear to have been in place, based on a historical atlas. Rather, access to this area of eastern Alameda County included a road along the alignment of present-day Tesla Road, and another road along the alignment of present-day East Avenue (Thompson & West 1878). The vicinity consisted of several properties ranging in size from around 160 acres (a quarter-section) to over 900 acres. Arroyo Seco was labeled "Muddy Creek" on an 1876 atlas map and the creek does not appear to have been bridged by this year (Thompson & West 1878)

The vicinity of the project site remained sparsely developed into the mid-twentieth century. By 1940, a dirt road aligned with present-day Greenville Road was present, and appears to have been bridged by a structure pre-dating the subject bridge (UCSB 1940).

The Arroyo Seco Bridge was constructed in 1962 (Caltrans 2021). An aerial photograph taken in 1965 captured the bridge early in its existence and showed the bridge was built with a slight parallelogram shape, when viewed from above, that is the same as its existing shape. The only apparent alteration to the bridge is the existing concrete columns that extend from the underside of the bridge's deck slab to the bed of Arroyo Seco. By 1965, the Lawrence Livermore and Livermore Scandia national laboratory facilities were developed to the northwest, and the South Bay Aqueduct ran along a north-south alignment to the west Greenville Road (UCSB 1965). Since the mid-1960s, developed in the vicinity of the bridge has been limited to gradual development of agricultural, commercial, and residential properties to the east and southeast of Greenville Road (*Independent*, *The* 2023, NETR 2025). The Martinelli Center, located to the immediate northwest of the project site and Arroyo Seco Bridge, was completed in 2005 (Alameda County Economic and Civic Development Department 2024, NETR 2025).

Concrete Bridges in California

Reinforced concrete was used increasingly for bridge construction in California beginning in the 1910s. Steel supports embedded in the concrete helped strengthen the concrete and prevent structural weaknesses due to tension. Bridge load capacity requirements increased as motors vehicles became more prevalent in the 1900s. By the mid-1930s, reinforced concrete bridges represented the majority of new bridges built in California (JRP Historical Consulting Services [JRP] 2003).

The Arroyo Seco Bridge appears to feature reinforced concrete slab construction, which may utilize pre-stressed concrete (**Figure 1**). A concrete slab is a rigid horizontal structure on which the roadway rests. Concrete and continuous concrete slab bridges were identified as the most common type of bridge constructed in California between 1936 and 1959, as of update to Caltrans' statewide bridge inventory prepared in 2003 (JRP 2003). This bridge type was typically used for short spans of roughly 30 feet or less and was the least expensive method of construction. This bridge type's concrete formwork was simple to build, and after a short construction time, relatively limited maintenance was required (JRP 2003). Between the 1930s and 1950s, concrete box girders and prestressed concrete construction were introduced in California; the latter was used for the majority of concrete bridges built. Prestressed construction was utilized for around half of the bridges built in California between the 1960s and 1970s, during a period of widespread bridge construction (JRP 2003).

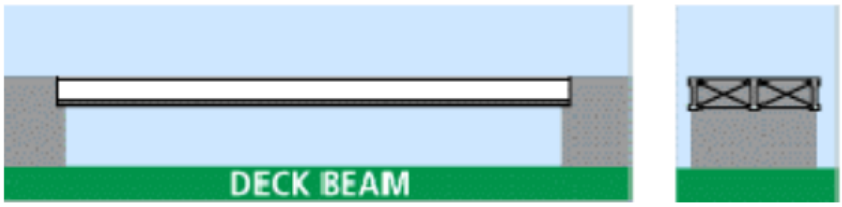


Figure 1. Diagram of deck beam bridge construction (Drawn by Bruce S. Cridlebaugh, in Parsons Brinkerhoff and Engineering and Industrial Heritage 2005)

Historical Evaluation

The Arroyo Seco Bridge is recommended ineligible for listing in the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), and the Alameda County Register as an Alameda County Landmark or Structure of Merit, due to a lack of historical and architectural significance.

NRHP/CRHR

Criterion A/1 (Events)

This bridge was built in 1962 during a period of widespread bridge construction in California that continued into the 1970s. During this period, many bridges of similar type were built, with reinforced-concrete deck beam construction representing a common construction method for such bridges. This bridge's construction was not found to represent innovation in engineering or construction techniques, nor to have significantly informed local planning, community development, or have played an important role in other historical contexts in the vicinity of Livermore, the County, or State. Therefore, the Arroyo Seco Bridge is recommended ineligible for listing in the CRHR under Criterion 1.

Criterion B/2 (Persons)

No individuals who made significant contributions to history are identified in association with the bridge. Therefore, the bridge is recommended ineligible for listing in the CRHR under Criterion 2.

Criterion C/3 (Architecture)

As indicated above, the Arroyo Seco Bridge exhibits common construction methods for a concrete deck beam bridge of its period (ca. 1962) and is not identified as an individually distinctive example of a type, period, method of construction or a work of architecture or engineering that possesses high artistic values, or represents the work of a master. No documentation was found that suggests this bridge embodies innovative construction features or exists as a rare, surviving example of a specific bridge type. Therefore, the bridge is recommended ineligible for listing in the CRHR Criterion 3.

Criterion D/4 (Information Potential)

The Arroyo Seco Bridge is unlikely to yield valuable information which will contribute to our understanding of human history because it is not and never was the principal source of important information pertaining to significant events, people, or bridge construction. Therefore, Arroyo Seco Bridge is recommended ineligible for listing in the CRHR under Criterion 4.

Alameda County Register

As described above, the Arroyo Seco Bridge not associated with events, patterns of history, or persons who have made significant contributions to Alameda County's history. Therefore, it is recommended ineligible for listing as an Alameda County Landmark under criteria a and b.

The bridge is not identified as a distinctive example of its type, period, or method of construction, as the work of an important creative individual or master, or as possessing high artistic values. Therefore, it is recommended ineligible for listing as an Alameda County Landmark under criteria c, d, and e.

The bridge is unlikely to yield valuable information which will contribute to our understanding of human history and is, therefore, recommended ineligible for listing as an Alameda County Landmark under criteria f.

B12. References (Continued from Page 2):

Alameda County Economic and Civic Development Department

2024 Request for Proposal for Martinelli Center Civil Engineering Services. April 13, 2024. Electronic resource. https://www.acgov.org/cda/ecd/documents/rfp/FINAL-Martinelli-Center-Civil-Engineer-RFP.pdf (accessed November 2024).

California Department of Transportation (Caltrans)

2021 Structure Maintenance & Inventory. Historical Significance – Local Agency Bridges. September 2021. On file with Rincon Consultants.

Independent, The

2023 "City Urban Growth Boundary Debated at GPAC Meeting," October 25. https://www.independentnews.com/news/livermore_news/city-urban-growth-boundary-debated-at-gpac-meeting/article_2f5bdce0-738b-11ee-bfdf-b7cc7f695745.html (accessed November 2024).

JRP Historical Consulting Services

2003 *Historic Context Statement: Roadway Bridges of California: 1936 to 1959*. Sacramento, CA: California Department of Transportation. January 2003. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/roadway-bridges-ca-2003-a11y.pdf (accessed December 2024).

NETR HistoricAerials.com (NETR)

2025 Historical aerials of bridge location and vicinity for years 1968, 1974, 1981, 1993, 2002, 2010, 2012, 2022. https://www.historicaerials.com/viewer (accessed February 2025).

Parsons Brinkerhoff and Engineering and Industrial Heritage

2005 *A Context For Common Historic Bridge Types*. NCHRP Project 25-25, Task 15. https://onlinepubs.trb.org/onlinepubs/archive/NotesDocs/25-25(15)_FR.pdf (accessed December 2024).

Thompson & West

1878 Map No. 8 in *Historical Atlas of Alameda County*. Oakland, CA: Thompson & West. Via David Rumsey Map Collection, online. https://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~21372~620074:Alameda-Co--8-?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No&qvq=q:thompson%20and%20west%20alameda%20county;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No;lc:RUMSEY~8~1&mi=26&trs=115 (accessed December 2024).

University of California, Santa Barbara (UCSB)

1940 FrameFinder historical aerial photograph online database. Fairchild Aerial Surveys. Flight but-1940, Frame 340-57. https://mil.library.ucsb.edu/ap_indexes/FrameFinder/ (Accessed November 2024).

1965 FrameFinder historical aerial photograph online database. Cartwright Aerial Surveys. Flight cas-65-130, Frame 18-24. https://mil.library.ucsb.edu/ap_indexes/FrameFinder/ (Accessed November 2024).

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 **of** 8 ***Resource Name or #:** Tesla-Newark No. 1 230kV Transmission Line (segment of)

P1. Other Identifier: None.

*P2. **Location:** ☒ **Not for Publication** ☐ **Unrestricted**

***a. County** Alameda **and *b. USGS 7.5' Quad** *Altamont, Calif.* **Date** 2023 **T** 3S; **R** 2E, 3E; SE ¼ of NE ¼ of **Sec** 13 MDBM.

c. Address None City Unincorporated Zip 94550

d. UTM: East - Zone 10S, 614926.04 mE/ 4170304.90mN; West - 614773.50 mE/ 4170246.83 mN

e. Other Locational Data: None.

***P3a. Description:**

The resource recorded is an approximately 540-foot segment of Pacific Gas & Electric Company's (PG&E) Tesla Newark No.1 230kV transmission line (subject segment), located within the Greenville Road Sewer Extension Project site at 3575-3585 Greenville Road near Livermore in unincorporated Alameda County (P5a.Photograph 1). The Tesla-Newark No. 1 230kV begins at PG&E's Tesla Substation in western San Joaquin County, and trends southwestward through Alameda County to PG&E's Newark Substation on the east side of San Francisco Bay; one of the conductors carried by this line, Tesla-Ravenswood, continues from Newark to PG&E's Ravenswood Substation near Menlo Park, on the opposite side of San Francisco Bay. The entire line appears to be approximately 27 miles in length between Tesla and Newark, and roughly 9 additional miles in length between Newark and Ravenswood. Survey and evaluation of the line was limited to the subject segment for this study. The subject segment is located to the west of Greenville Road and crosses APNs 099A-1602-013-01 and 099A-1602-005-03, which contain the County of Alameda's Martinelli Event Center (Martinelli Center) and adjacent facilities related to the University of California's Master Gardeners of Alameda County Livermore Demonstration Garden (Demonstration Garden). Both the Martinelli Center and Demonstration Garden were built between 2002 and 2005 and are not historic-age built environment resources or subject to historical resource evaluation. The subject segments consists of a single steel lattice suspension tower, carrying two circuits, with twelve conductors (Photograph 2). The tower has a typical tapered form, sits on cylindrical concrete footings, and has angled insulators that appear to be ceramic or polymer plastic (Photograph 3 and Photograph 4).

***P3b. Resource Attributes:** HP11. Engineering Structure HP39. Other

***P4. Resources Present:** ☐Building ☒Structure ☐Object ☐Site ☐District ☐Element of District ☐Other

P5a. Photograph 1



P5b. Description of Photograph 1: Arroyo Seco Bridge, viewed from Greenville Road, facing north. December 18, 2024.

P6. Date Constructed/Age and Source:
Estimated ca. 1971-1974 (NETR 2024)
☒ Historic

***P7. Owner and Address:**
Pacific Gas & Electric Company

***P8. Recorded by:**
Josh Bevan, AICP, MSHP
Rincon Consultants, Inc.
66 Franklin Street, Suite 300
Oakland, CA 94607

***P9. Date Recorded**: February 12, 2025

***P10. Survey Type:**
Intensive Pedestrian

***P11. Report Citation:** *Cultural Resources Assessment for the Greenville Road Sewer Extension Project, Unincorporated Alameda County, California*. Rincon Project 23-15365.

***Attachments:** ☐ NONE ☒Location Map ☒Continuation Sheet ☒Building, Structure, and Object Record
☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photograph Record ☐Sketch Map ☐Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

B1. Historic Name: Unknown
B2. Common Name: None.
B3. Original Use: 220kV Transmission Line
B4. Present Use: 230kV Transmission Line
***B5. Architectural Style:** Steel lattice transmission tower
***B6. Construction History:**
The subject segment current alignment and steel lattice suspension tower date to ca. 1971-1974 (NETR 2024). The tower appears to be a replacement for an earlier steel lattice tower that was situated to the northeast, within the same parcel, but which had been constructed by 1940 and supported a 220kV transmission line (UCSB 1940, USGS 1942).

***B7. Moved?** ☒**No** ☐**Yes** ☐**Unknown** **Date:** **Original Location:**

***B8. Related Features:** None.

B9a. Architect: Unidentified b. Builder: PG&E
***B10. Significance:** Electrical Conveyance **Area:** Alameda County
Period of Significance None. **Property Type** Transmission Line and Tower **Applicable Criteria** None.

See Continuation Sheet

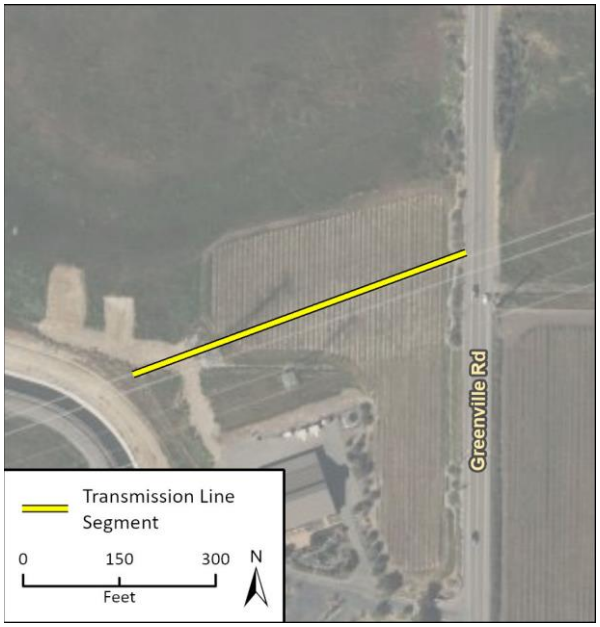
B11. Additional Resource Attributes: None.

***B12. References:** See Continuation Sheet

B13. Remarks: None

***B14. Evaluator:** Josh Bevan, AICP, MSHP – Rincon Consultants, Inc.
***Date of Evaluation:** March 7, 2025

(This space reserved for official comments.)

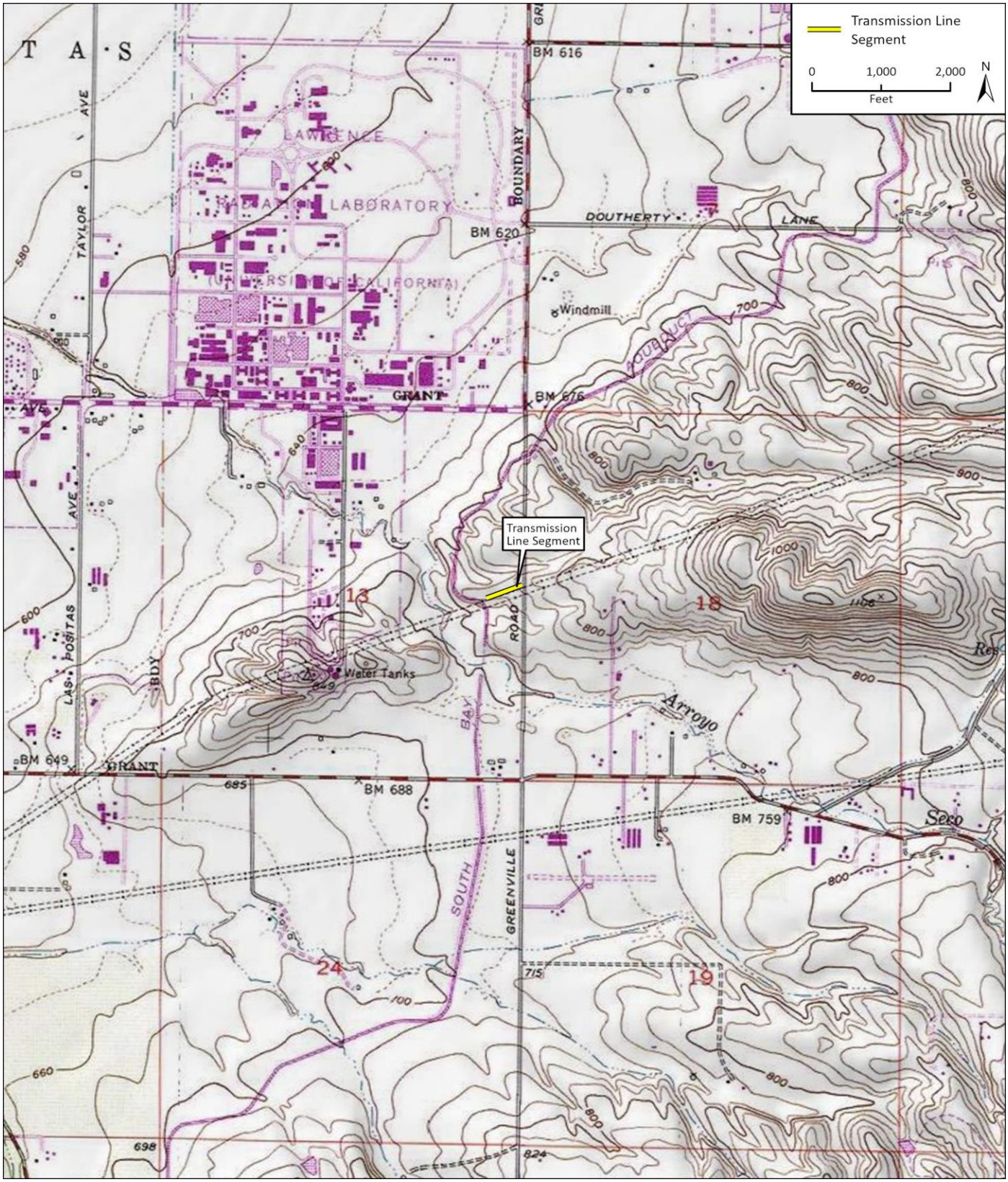


State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

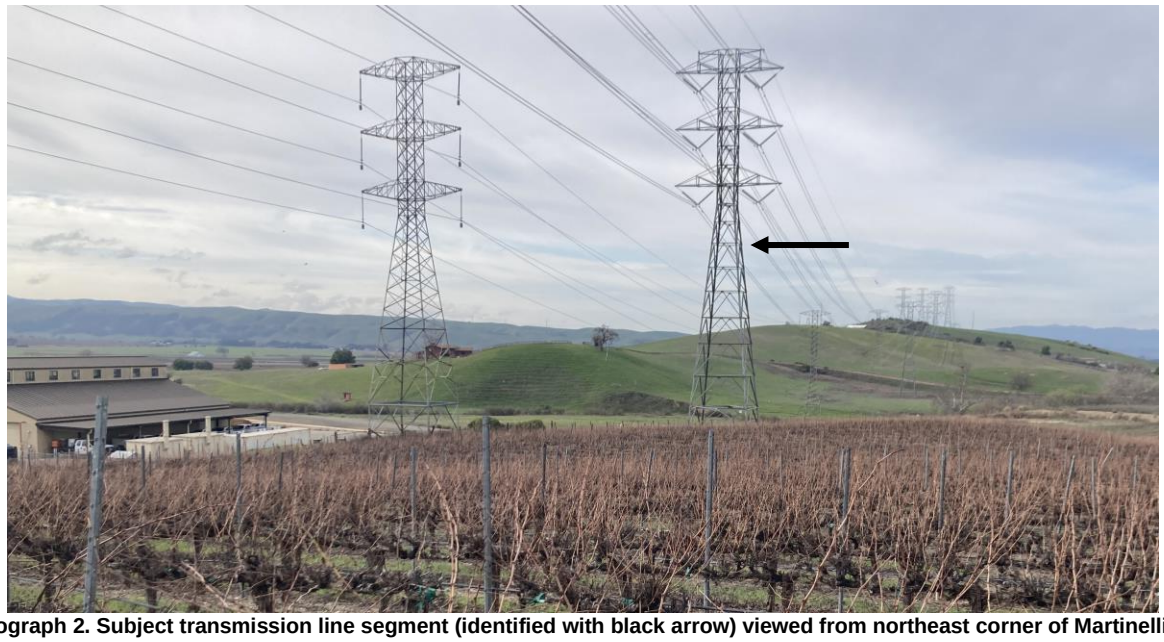
Primary #
HRI#
Trinomial

Page 3 **of** 8 ***Resource Name or #** Tesla-Newark No. 1 230kV Transmission Line (segment of)
***Map Name:** *Altamont, California Quadrangle* ***Scale:** 1:24,000 ***Date of map:** 2024



*** Required information**

P4a. Description (Continued from Page 1):



Photograph 2. Subject transmission line segment (identified with black arrow) viewed from northeast corner of Martinelli Center property, facing southwest.



Photograph 3. Base of transmission tower with cylindrical concrete footings, view facing southeast.



Photograph 4. Top of tower, view facing southeast.

B10. Significance (Continued from Page 2):

Electrical Conveyance and Transmission

The subject power line segment meets the definition of transmission lines, as defined by PG&E (PG&E 2020):

> Transmission includes all electrical voltages running at 60 kV or more. Current PG&E transmission facilities include structures that carry electricity at 60, 70, 115, 230, and 500 kV. Transmission alignments of 60 to 100 kV are generally categorized as subtransmission facilities, because they carry lower voltages that are often stepped down from higher voltage alignments for regional electrical delivery. Transmission facilities of 500 kV are categorized as Extra High Voltage (EHV) facilities, because they carry the highest voltages within the

energy grid. As defined by PG&E, transmission lines have the following qualities:

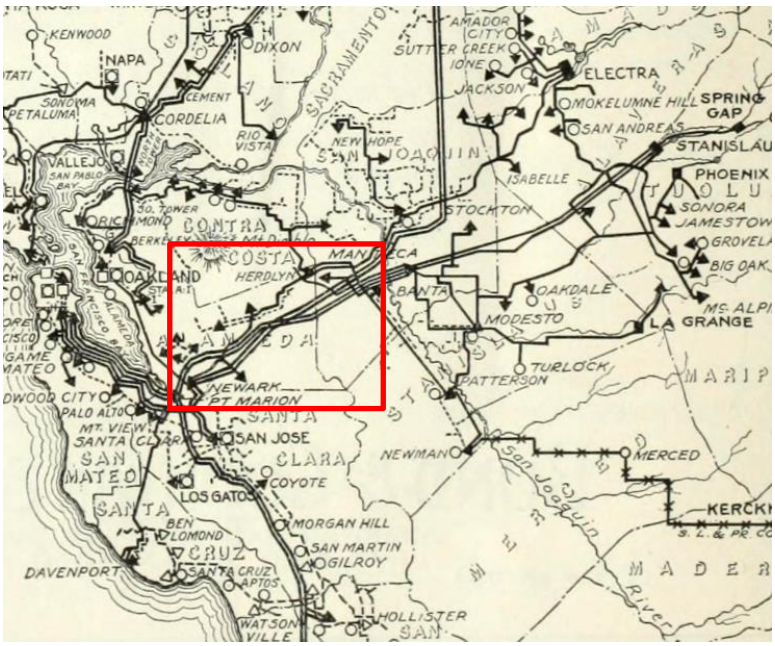
- Carry electricity across the state
- Transport bulk electricity at high voltages ranging from 60 kV to 500 kV using three-phase AC circuits
- Are usually carried on tall metal towers, and less commonly on wooden poles

Developmental History

Access to records relating to the original construction of the subject segment from the subject transmission line's owner, Pacific Gas & Electric Company (PG&E), was not available for this study. Therefore, historical PG&E publications, publicly available data, newspapers, aerial photography, and historical maps were reviewed to understand the subject segment's developmental history. Available PG&E historical maps indicate several transmission lines existed in the vicinity of Livermore, Alameda County by 1922 (PG&E 1922a, Figure 1). These lines appear to have connected substations in San Joaquin County to substations in the East Bay and South Bay regions of the San Francisco Bay Area, including the Newark substation that was built in 1920 (PG&E 2020).

PG&E's *Pacific Service Magazine* included advertisements that illustrated its standard 220kV steel lattice transmission towers, noting that over 1600 such towers existed as of 1922. The design of the towers, with tapered bases and six sets of vertically oriented insulators, differed from the existing tower within the subject segment (PG&E 1922b, **Error! Reference source not found.**).

Figure 1. Map depicting PG&E facilities, including transmission lines in Alameda County and Livermore vicinity (outlined in red), 1922.



Source: PG&E 1922a (annotated by Rincon 2025)

Figure 2. Advertisement illustrating the design of 220kV transmission towers used for 1600 towers.



Source: PG&E, *Pacific Service Magazine*, October 1922, Vol. 14, No 5. (PG&E 1922b)

The earliest available aerial photography of the subject segment's location is from 1940 (UCSB 1940). Two parallel transmission line segments that ran on a southwestward alignment through the present-day Martinelli Center property on Greenville Road were depicted. A tower was shown within the subject segment, but at a location that appears to have been to the east of the existing

tower's location. Another tower appeared to the southeast and was associated with a parallel transmission line segment[1] (UCSB 1940, Figure 3). Therefore, as of 1940, two transmission towers associated with parallel transmission lines are confirmed to have existed at the subject property. Historical topographic maps indicates the two lines shown in the 1940 aerial were "PG&E 220kV' transmission lines as of 1942 (USGS 1942). These lines trended northeastward to Tracy, California but did not connect to PG&E's Tesla Substation, as it had yet to be built. Therefore, the tower within the subject transmission line segment is estimated to have been built ca. 1940, but potentially dates to ca. 1922, given its similar design to towers advertised by PG&E in 1922.

Figure 3. Aerial photograph centered on Greenville Road to the north of Arroyo Seco, capturing two parallel transmission lines, including the subject segment and tower, in 1940.



Source: UCSB 1940

Additional research determined that a small substation existed at the location of PG&E's existing Tesla Substation by 1949, but was expanded considerably between the late 1950s and early 1970s (NETR 2024). In 1968, the Tesla Substation was designated as one of several PG&E substations that supported a major 500kV Extra High Voltage (EHV) transmission project that resulted in a transmission corridor from Northern California to an interconnection with Southern California Edison at Midway Substation in Kern County (PG&E 2020). PG&E's *Historic-Era Infrastructure Management Plan* notes 220kV "remained the high voltage technological standard through the 1960s until the development of 500 kV transmission capabilities" (PG&E 2020). More recent aerial photography indicates replacement and relocation of the tower that supported the subject segment ca. 1940, with the existing tower ca. 1971 to 1974 (NETR 2024). The existing tower was positioned further to the west than the previously built 220kV tower. Similar replacement of towers along the Tesla-Newark Newark No. 1 230kV transmission line occurred contemporaneously on land to the immediate east of Greenville Road, as captured in historical aerial photography (NETR 2024).

Historical Evaluation

The recorded segment of Tesla-Newark No. 1 230kV transmission line is recommended ineligible for listing in the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), and Alameda County Register due to a lack of historical significance.

[1] This parallel segment has been recorded and evaluated separately as the Tesla-Newark No. 2 230kV.

Criterion A/1 (Events)
The subject segment is recommended ineligible for listing in the NRHP and CRHR under Criterion A/1. Although the subject segment originated by 1940, and potentially as early as ca. 1922, and along a similar southwestward alignment, the line's overall alignment has been modified since the late 1960s, including extensive tower replacement and reconductored from 220kV to 230kV. Thus, the existing steel lattice tower within the subject segment is representative of development of transmission lines ca. 1971-1974, rather than earlier transmission line development between 1922 and 1940. The subject segment, individually, does not convey significant association to patterns of electrical conveyance, as its role in the development of 230kV transmission lines post-dates the inception steel lattice transmission towers in the early twentieth century, and notable achievements in transmission line development, such as the first 220kV line in 1922. Additionally, although the 230kV line connects to the Tesla Substation, which is part of the EHV 500kV transmission network developed in the 1960s, the subject segment and its associated 230kV transmission line are among several transmission lines of similar voltage and period of construction that are common in the region and state. The subject segment's development in the 1970s, as a reconductored line supported by replacement towers is not individually significant in the context of electrical conveyance or technological innovation.

Criterion B/2 (Persons)
Research for this study did not identify any individual strongly associated with the subject segment. The resource is therefore recommended ineligible for inclusion in the NRHP and CRHR under Criterion B/2.

Criterion C/3 (Architecture)
The subject segment is recommended ineligible for listing in the NRHP and CRHR under Criterion C/3. The segment consists of one double-circuit, steel lattice suspension tower with ceramic or polymer plastic insulators, and twelve conductors, that was built ca. 1971-1974. The tower replaced an earlier tower that was built ca. 1940 and potentially as early as 1922. Nonetheless, the existing tower features a similar design to standardized steel lattice transmission towers built by PG&E for 230kV transmission. Although the tower's design appears intact to ca. 1971-1974, its form and features are common to transmission tower design and do not represent individually distinctive construction, engineering innovation, or a rare surviving example of a tower type. Additionally, the tower and subject segment do not represent the work of a master engineer, or possess high artistic value. Rather, they are representative of standard tower and transmission line construction methods and post-dates the inception of steel lattice towers to support electrical conveyance systems.

Criterion D/4 (Information Potential)
A review of available evidence did not indicate that the subject transmission line segment may yield important information about prehistory or history. It is therefore recommended ineligible for listing in the NRHP and CRHR under Criteria D/4.

<u>Alameda County Register</u>
As described above, the subject segment not associated with events, patterns of history, or persons who have made significant contributions to Alameda County's history. Therefore, it is recommended ineligible for listing as an Alameda County Landmark under criteria a and b.

The subject segment is not identified as a distinctive example of its type, period, or method of construction, as the work of an important creative individual or master, or as possessing high artistic values. Therefore, it is recommended ineligible for listing as an Alameda County Landmark under criteria c, d, and e.

The subject segment is unlikely to yield valuable information which will contribute to our understanding of human history and is, therefore, recommended ineligible for listing as an Alameda County Landmark under criteria f.

B12. References (Continued from Page 2):
NETR HistoricAerials.com (NETR)

2025 Historical aerials of bridge location and vicinity for years 1971 and 1974.

https://www.historicaerials.com/viewer (accessed January 2025).

Pacific Gas & Electric Company (PG&E)

1922a Map of PG&E's facilities in Pacific Service Magazine June 1922 Vol 14 No.1. https://archive.org/details/pacificservicema1423paci/page/98/mode/2up (accessed February 2025).

1922b Advertisement featuring steel lattice tower in Pacific Service Magazine, October 1922, Vol. 14, No 5. https://archive.org/details/pacificservicema1423paci/page/n211/mode/2up (accessed February 2025).

2020 *Pacific Gas & Electric Company Historic-Era Electrical Infrastructure Management Plan (HEIMP).* April 2020. Prepared by Polly Seddon Allen, Matt Walker, and Iris Eschen – Cardno with contributions from Stephanie Cimino, Leslie Sakowicz, Kathleen Forrest – PG&E, and Susan Lassell and David Lemon – ICF.

University of California, Santa Barbara (UCSB)

1940 FrameFinder historical aerial photograph online database. Fairchild Aerial Surveys. Flight but-1940, Frame 340-57. https://mil.library.ucsb.edu/ap_indexes/FrameFinder/ (Accessed November 2024).

United States Geological Survey (USGS)

1942a *Altamont, California Quadrangle*. 1: 62500. https://ngmdb.usgs.gov/topoview/viewer/#15/37.6699/-121.7042 (accessed January 2025).

1942b *Carbona, California Quadrangle*. 1: 62,500 https://ngmdb.usgs.gov/topoview/viewer/#13/37.7404/-121.5176 (accessed January 2025).

The State of California - The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI #**
PRIMARY RECORD
Trinomial
NRHP Status Code
Other Listings
Review Code Reviewer Date

Page 1 **of** 8 ***Resource Name or #:** Tesla-Newark No. 2 230kV Transmission Line (segment of)

P1. Other Identifier: None.

*P2. **Location:** ☒ **Not for Publication** ☐ **Unrestricted**

***a. County** Alameda **and *b. USGS 7.5' Quad** *Altamont, Calif.* **Date** 2023 **T** 3S; **R** 2E, 3E; SE ¼ of NE ¼ of **Sec** 13 MDBM.

c. Address None City Unincorporated Zip 94550

d. UTM: East - Zone 10S, 614926.59 mE/ 4170277.55 mN, West - 614787.88 mE/ 4170224.51mN

e. Other Locational Data: None.

***P3a. Description:**

The resource recorded is an approximately 490-foot segment of Pacific Gas & Electric Company's (PG&E) Tesla Newark No.2 230kV transmission line (subject segment), located within the Greenville Road Sewer Extension Project site at 3575-3585 Greenville Road near Livermore in unincorporated Alameda County (P5a.Photograph 1). The Tesla-Newark No. 2 230kV begins at PG&E's Tesla Substation near Tracy in San Joaquin County, and trends southwestward through Alameda County to PG&E's Newark Substation on the east side of San Francisco Bay. The entire line appears to be approximately 27 miles in length between Tesla and Newark. Survey and evaluation of the line was limited to the subject segment for this study. The subject segment is located to the west of Greenville Road and crosses APNs 099A-1602-013-01 and 099A-1602-005-03, which contain the County of Alameda's Martinelli Event Center (Martinelli Center) and adjacent facilities related to the University of California's Master Gardeners of Alameda County Livermore Demonstration Garden (Demonstration Garden). Both the Martinelli Center and Demonstration Garden were built between 2002 and 2005 and are not historic-age built environment resources or subject to historical resource evaluation. The subject segments consists of a double-circuit line with six conductors, with one steel lattice suspension tower carrying the subject segment (Photograph 2). The tower has a typical tapered form, sits on tapered concrete footings, and has vertically oriented insulators that appear to be ceramic or polymer plastic (Photograph 3 and Photograph 4)

***P3b. Resource Attributes:** HP11. Engineering Structure

***P4. Resources Present:** ☐Building ☒Structure ☐Object ☐Site ☐District ☐Element of District ☐Other

P5a. Photograph 1



Unincorporated Alameda County, California. Rincon Project 23-15365.

P5b. Description of Photograph 1: Arroyo Seco Bridge, viewed from Greenville Road, facing north. December 18, 2024.

P6. Date Constructed/Age and Source: ca. 1920-1944 (PG&E 2020, UCSB 1940, USGS 1942) ☒ Historic

***P7. Owner and Address:**
Pacific Gas & Electric Company

***P8. Recorded by:**
Josh Bevan, AICP, MSHP
Rincon Consultants, Inc.
66 Franklin Street, Suite 300
Oakland, CA 94607

***P9. Date Recorded**: February 12, 2025

***P10. Survey Type:**
Intensive Pedestrian

***P11. Report Citation**: *Cultural Resources Assessment for the Greenville Road Sewer Extension Project,*

***Attachments:** ☐NONE ☒Location Map ☒Continuation Sheet ☒Building, Structure, and Object Record
☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photograph Record ☐Sketch Map ☐Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** 6Z

***Resource Name or #** Tesla-Newark No. 2 230kV Transmission Line

B1. Historic Name: None
B2. Common Name: None
B3. Original Use: 220kV transmission line
B4. Present Use: 230kV transmission line
***B5. Architectural Style:** Steel lattice transmission tower
***B6. Construction History:**
The subject segment was developed as part of a 220kV transmission line located between Tracy and Newark ca. 1922 to 1940; the existing tower is confirmed to have existed by 1940. The tower appears to have been reconductored to 230kV ca. 1968 following development of 500kV EHV conveyance; however, an exact year of this work is unknown.

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** **Original Location:**

***B8. Related Features:** None.

B9a. Architect: Unknown b. Builder: Pacific Gas & Electric Company
***B10. Significance:** Electrical Conveyance **Area:** Alameda County
Period of Significance None. **Property Type** Transmission Line and Tower **Applicable Criteria** None.

See Continuation Sheet

B11. Additional Resource Attributes: None.

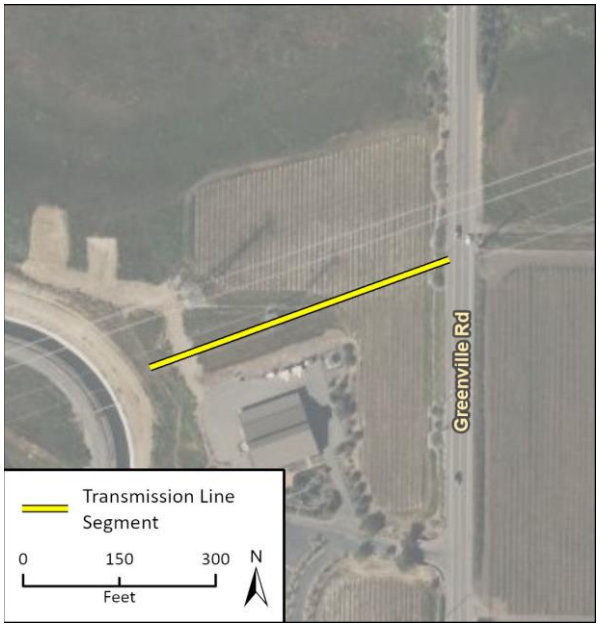
***B12. References:** See Continuation Sheet

B13. Remarks: None

***B14. Evaluator:** Josh Bevan, AICP, MSHP – Rincon Consultants, Inc.

***Date of Evaluation:** March 7, 2025

(This space reserved for official comments.)



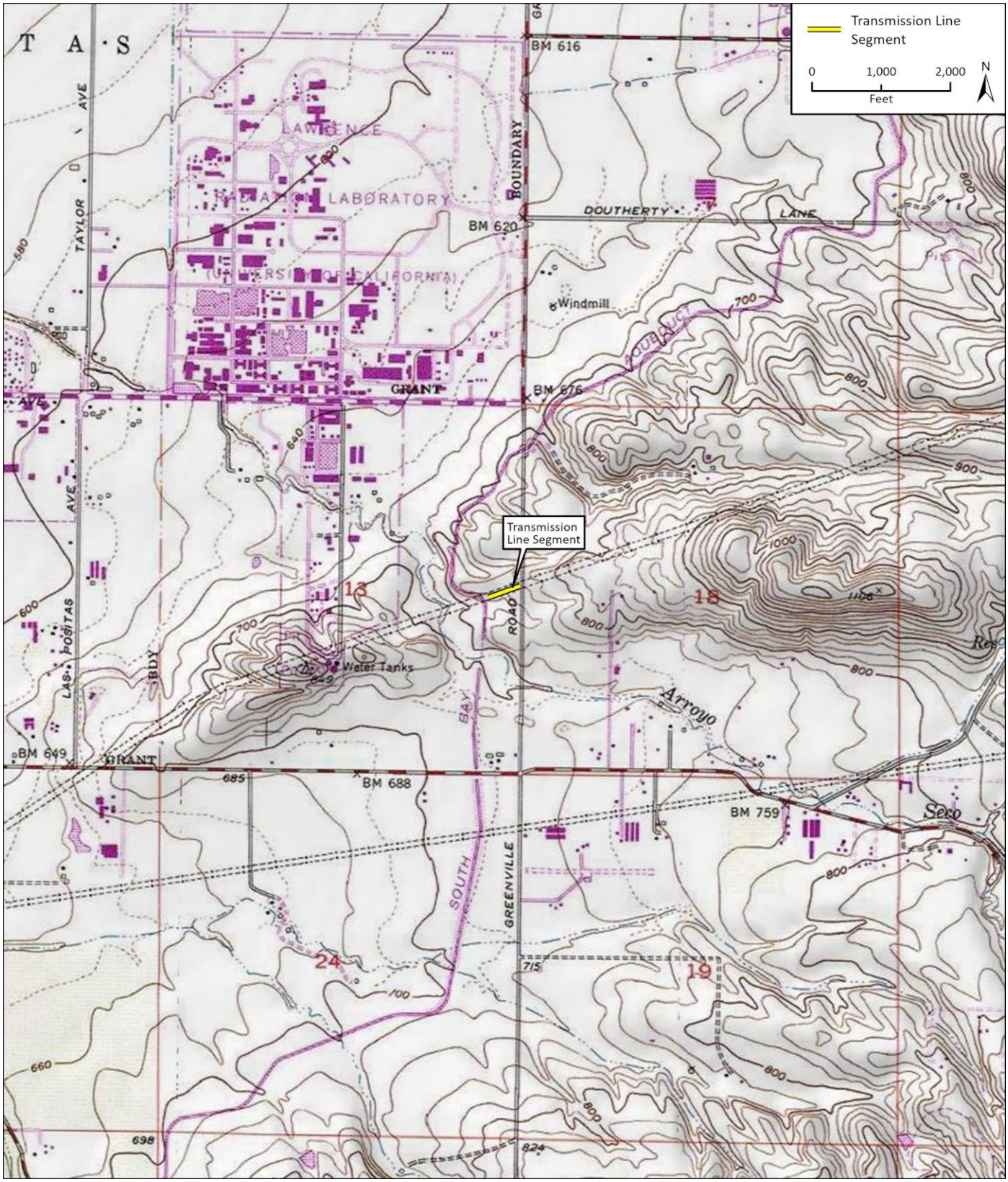
*Required information

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

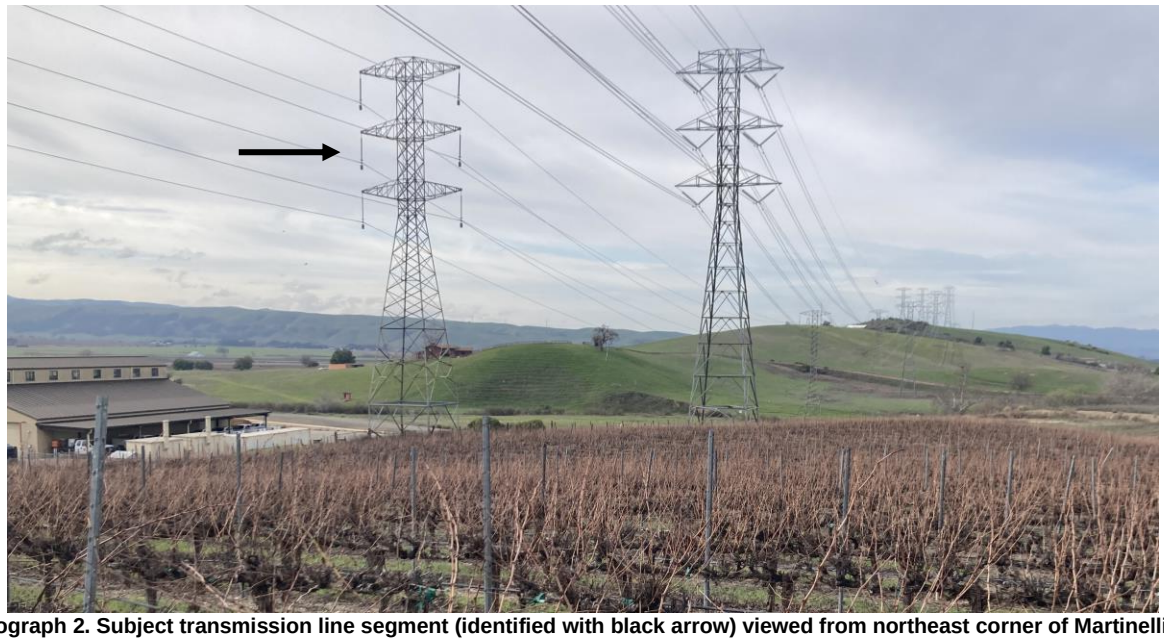
Primary #
HRI#
Trinomial

Page 3 **of** X ***Resource Name or #** Tesla-Newark No. 2 230kV Transmission Line
***Map Name:** *Altamont, California Quadrangle* ***Scale:** 1:24,000 ***Date of map:** 2024



*** Required information**

P4a. Description (Continued from Page 1):



Photograph 2. Subject transmission line segment (identified with black arrow) viewed from northeast corner of Martinelli Center property, facing southwest.



Photograph 3. Base of transmission tower with tapered concrete footings, view facing southeast.



Photograph 4. Top of tower, view facing northwest.

B10. Significance (Continued from Page 2):

Electrical Conveyance and Transmission

The subject powerlines appear to meet the definition of transmission lines, as defined by PG&E (PG&E 2020):

> Transmission includes all electrical voltages running at 60 kV or more. Current PG&E transmission facilities include structures that carry electricity at 60, 70, 115, 230, and 500 kV. Transmission alignments of 60 to 100 kV are generally categorized as subtransmission facilities, because they carry lower voltages that are often stepped down from higher voltage alignments for regional electrical delivery. Transmission facilities of 500

kV are categorized as Extra High Voltage (EHV) facilities, because they carry the highest voltages within the energy grid. As defined by PG&E, transmission lines have the following qualities:

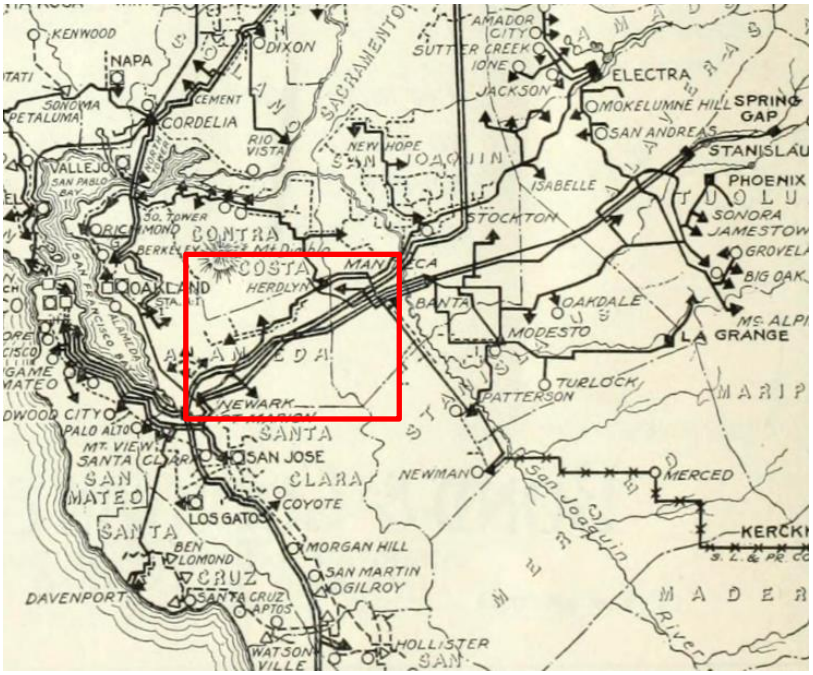
- Carry electricity across the state
- Transport bulk electricity at high voltages ranging from 60 kV to 500 kV using three-phase AC circuits
- Are usually carried on tall metal towers, and less commonly on wooden poles

Developmental History

Access to records relating to the original construction of the subject segment from the subject transmission line's owner, Pacific Gas & Electric Company (PG&E), was not available for this study. Therefore, historical PG&E publications, publicly available data, newspapers, aerial photography, and historical maps were reviewed to understand the subject segment's developmental history. Available PG&E historical maps indicate several transmission lines existed in the vicinity of Livermore by 1922 (PG&E 192a Figure 1). These lines appear to have connected substations in San Joaquin County to substations in the East Bay and South Bay regions of the San Francisco Bay Area, including the Newark substation that was built in 1920 (PG&E 2020).

PG&E's *Pacific Service Magazine* included advertisements that illustrated its standard 220kV steel lattice transmission towers, noting that over 1600 such towers existed as of 1922. The design of the towers, with tapered bases and six sets of vertically oriented insulators, appears similar to the tower within the subject segment (PG&E 1922b, Figure 2).

Figure 1. Map depicting PG&E facilities, including transmission lines in Alameda County and Livermore vicinity (outlined in red), 1922.



Source: PG&E 1922a (annotated by Rincon 2025)

Figure 2. Advertisement illustrating the design of 220kV transmission towers used for 1600 towers.



Source: PG&E, *Pacific Service Magazine*, October 1922, Vol. 14, No 5. (PG&E 1922b)

The earliest available aerial photography of the subject segment's location is from 1940 (UCSB 1940). Two parallel transmission line segments that ran on a southwestward alignment through the present-day Martinelli Center property on Greenville Road were depicted. A tower was shown within the subject segment, at the location of the existing tower. Another tower appeared to the

northwest and was associated with a parallel segment[1] (UCSB 1940, Figure 3). Therefore, as of 1940, two transmission towers associated with parallel transmission lines are confirmed to have existed at the subject property. Historical topographic maps indicates the two lines shown in the 1940 aerial were "PG&E 220kV' transmission lines as of 1942 (USGS 1942). These lines trended northeastward to Tracy, California but did not connect to PG&E's Tesla Substation, as it had yet to be built. Therefore, the tower within the subject transmission line segment is estimated to have been built ca. 1940, but potentially dates to ca. 1922, given its similar design to towers advertised by PG&E in 1922.

Figure 3. Aerial photograph centered on Greenville Road to the north of Arroyo Seco, capturing two parallel transmission lines, including the subject segment and tower, in 1940.



Source: UCSB 1942

Additional research determined that a small substation existed at the location of PG&E's existing Tesla Substation by 1949, but was expanded considerably between the late 1950s and early 1970s. In 1968, the Tesla Substation was designated as one of several PG&E substations that supported a major 500kV Extra High Voltage (EHV) transmission project that resulted in a transmission corridor from Northern California to an interconnection with Southern California Edison at Midway Substation in Kern County (PG&E 2020). PG&E's *Historic-Era Infrastructure Management Plan* notes 220kV "remained the high voltage technological standard through the 1960s until the development of 500 kV transmission capabilities" (PG&E 2020). Thus, it appears that the reconductoring of the subject segment and its associated transmission line to 230kV occurred as part of or after the development of the EHV project. More recent aerial photography indicates alteration of the Tesla-Newark No. 2 230kV transmission line in the vicinity of the subject segment, including installation of a tubular steel pole on Greenville Road ca. 2002-2005 (NETR 2024).

Historical Evaluation

The recorded segment of Tesla-Newark No. 2 230kV transmission line is recommended ineligible for listing in the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), and Alameda County Register due to a lack of historical significance.

[1] This parallel segment has been recorded and evaluated separately as the Tesla-Newark No. 1 230kV.

Criterion A/1 (Events)
The subject segment is recommended ineligible for listing in the NRHP and CRHR under Criterion A/1. Although the subject segment retains a steel lattice tower that appears to date to 1940, and potentially as early as ca. 1922, as well as its southwestward alignment, the line's overall alignment has been modified since the late 1960s and reconductored from 220kV to 230kV. The subject segment, individually, does not convey significant association to patterns of electrical conveyance, as its role in the establishment of transmission lines post-date the inception steel lattice transmission towers in the early twentieth century, and has not been directly tied to significant developments in PG&E's history, such as the establishment of its earliest 220kV line as part of the Pit River Hydroelectric Project. Rather, this line's historical development appears similar to the continued development of transmission lines as PG&E's service area spread throughout Northern California but was not individually significant within that pattern.

Criterion B/2 (Persons)
Research for this study did not identify any individual strongly associated with the subject segment. The resource is therefore recommended ineligible for inclusion in the NRHP and CRHR under Criterion B/2.

Criterion C/3 (Architecture)
The subject segment is recommended ineligible for listing in the NRHP and CRHR under Criterion C/3. The segment consists of one double-circuit, steel lattice suspension tower with ceramic or polymer plastic insulators, and six conductors, that was built ca. 1940, but potentially as early as 1922. The tower features a similar design to standardized steel lattice transmission towers advertised in PG&E publications in the early 1920s. Although the tower's design appears intact to ca. 1940, its design is not an individually distinctive example of a type, method, or period of construction, as it was one of at least 1600 other towers of similar design. Although towers are subject to alteration or total replacement, this tower's level of design integrity appears similar to other towers along its alignment in the vicinity, as well as other examples in the region; therefore, it is not a rare example of a type or method of construction. Additionally, the tower and subject segment do not represent the work of a master engineer, or possess high artistic value. Rather, they are representative of standard tower and transmission line construction methods and post-dates the inception of steel lattice towers to support electrical conveyance systems.

Criterion D/4 (Information Potential)
A review of available evidence did not indicate that the subject transmission line segment may yield important information about prehistory or history. It is therefore recommended ineligible for listing in the NRHP and CRHR under Criteria D/4.

<u>Alameda County Register</u>
As described above, the subject segment not associated with events, patterns of history, or persons who have made significant contributions to Alameda County's history. Therefore, it is recommended ineligible for listing as an Alameda County Landmark under criteria a and b.

The subject segment is not identified as a distinctive example of its type, period, or method of construction, as the work of an important creative individual or master, or as possessing high artistic values. Therefore, it is recommended ineligible for listing as an Alameda County Landmark under criteria c, d, and e.

The subject segment is unlikely to yield valuable information which will contribute to our understanding of human history and is, therefore, recommended ineligible for listing as an Alameda County Landmark under criteria f.

B12. References (Continued from Page 2):

NETR HistoricAerials.com (NETR)

2025 Historical aerials of bridge location and vicinity for years 1971 and 1974.

https://www.historicaerials.com/viewer (accessed January 2025).

Pacific Gas & Electric Company (PG&E)

1922a Map of PG&E's facilities in Pacific Service Magazine June 1922 Vol 14 No.1. https://archive.org/details/pacificservicema1423paci/page/98/mode/2up (accessed February 2025).

1922b Advertisement featuring steel lattice tower in Pacific Service Magazine, October 1922, Vol. 14, No 5. https://archive.org/details/pacificservicema1423paci/page/n211/mode/2up (accessed February 2025).

2020 *Pacific Gas & Electric Company Historic-Era Electrical Infrastructure Management Plan (HEIMP).* April 2020. Prepared by Polly Seddon Allen, Matt Walker, and Iris Eschen – Cardno with contributions from Stephanie Cimino, Leslie Sakowicz, Kathleen Forrest – PG&E, and Susan Lassell and David Lemon – ICF.

University of California, Santa Barbara (UCSB)

1940 FrameFinder historical aerial photograph online database. Fairchild Aerial Surveys. Flight but-1940, Frame 340-57. https://mil.library.ucsb.edu/ap_indexes/FrameFinder/ (Accessed November 2024).

United States Geological Survey (USGS)

1942a *Altamont, California Quadrangle*. 1: 62500. https://ngmdb.usgs.gov/topoview/viewer/#15/37.6699/-121.7042 (accessed January 2025).

1942b *Carbona, California Quadrangle*. 1: 62,500 https://ngmdb.usgs.gov/topoview/viewer/#13/37.7404/-121.5176 (accessed January 2025).

Appendix D

Energy Calculation Sheets

Greenville Sewer Extension and Martinelli Center project

Last Updated: 3/19/2026

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors **[1]**:

HP: 0 to 100	0.0588	HP: Greater than 100	0.0529

Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT

Construction Equipment	#	Hours per Day	Horsepower	Load Factor	Construction Phase	Fuel Used (gallons)
Tractors/Loaders/Backhoes	3	8	84	0.37	Demolition Phase	877
Off-Highway Trucks	1	8	376	0.38	Demolition Phase	1,208
Excavators	1	8	36	0.38	Site Preparation Phase	129
Tractors/Loaders/Backhoes	1	7	84	0.37	Site Preparation Phase	128
Rubber Tired Dozers	1	8	367	0.4	Site Preparation Phase	621
Excavators	1	8	36	0.38	Grading Phase	64
Rubber Tired Dozers	1	8	367	0.4	Grading Phase	621
Tractors/Loaders/Backhoes	2	7	84	0.37	Grading Phase	26
Plate Compactors	1	8	8	0.43	Grading Phase	2
Generator Sets	1	8	14	0.74	Building Construction Phase	5
Tractors/Loaders/Backhoes	1	6	84	0.37	Building Construction Phase	11
Welders	3	8	46	0.45	Building Construction Phase	29
Air Compressors	1	8	37	0.48	Building Construction Phase	167
Cement and Mortar Mixers	1	8	10	0.56	Paving Phase	53
Pavers	1	8	81	0.42	Paving Phase	320
Paving Equipment	1	8	89	0.36	Paving Phase	301
Rollers	2	8	36	0.38	Paving Phase	257
Tractors/Loaders/Backhoes	1	8	84	0.37	Paving Phase	292
Excavators	1	8	36	0.38	Trenching Phase	129
Tractors/Loaders/Backhoes	1	8	84	0.37	Trenching Phase	44
Crawler Tractors	1	8	87	0.43	Linear, Grubbing & Land Clearing	53
Excavators	1	8	36	0.38	Linear, Grubbing & Land Clearing	13
Crawler Tractors	1	8	87	0.43	Linear, Grading & Excavation	35
Excavators	3	8	36	0.38	Linear, Grading & Excavation	39
Graders	1	8	148	0.41	Linear, Grading & Excavation	51
Rollers	2	8	36	0.38	Linear, Grading & Excavation	26
Rubber Tired Dozers	1	8	150	0.4	Linear, Grading & Excavation	51
Scrapers	1	2	423	0.48	Linear, Grading & Excavation	43
Tractors/Loaders/Backhoes	2	8	84	0.37	Linear, Grading & Excavation	58
Air Compressors	1	8	37	0.48	Linear, Drainage, Utilities & Sub-Grade	17
Generator Sets	1	8	14	0.74	Linear, Drainage, Utilities & Sub-Grade	10
Graders	1	8	148	0.41	Linear, Drainage, Utilities & Sub-Grade	51
Plate Compactors	1	8	8	0.43	Linear, Drainage, Utilities & Sub-Grade	3
Pumps	1	8	11	0.74	Linear, Drainage, Utilities & Sub-Grade	8
Rough Terrain Forklifts	1	8	96	0.4	Linear, Drainage, Utilities & Sub-Grade	36
Scrapers	2	8	423	0.48	Linear, Drainage, Utilities & Sub-Grade	343
Tractors/Loaders/Backhoes	2	8	84	0.37	Linear, Drainage, Utilities & Sub-Grade	58
Pavers	1	8	81	0.42	Linear, Paving	32
Paving Equipment	1	8	89	0.36	Linear, Paving	30
Rollers	3	8	36	0.38	Linear, Paving	39
Tractors/Loaders/Backhoes	2	8	84	0.37	Linear, Paving	58
					Total Fuel Used	**6,337**
						(Gallons)

Construction Phase	Days of Operation
Demolition Phase	20
Site Preparation Phase	10
Grading Phase	1
Building Construction Phase	20
Paving Phase	2
Trenching Phase	10
Linear, Grubbing & Land Clearing	3
Linear, Grading & Excavation	12
Linear, Drainage, Utilities & Sub-Grade	11
Linear, Paving	5
Total Days	94

WORKER TRIPS

Constuction Phase	MPG [2]	One-Way Trips per Day	Trip Length (miles)	Fuel Used (gallons)
Demolition Phase	24.1	10	11.7	194.19
Site Preparation Phase	24.1	8	11.7	72.82
Grading Phase	24.1	13	11.7	12.14
Building Construction Phase	24.1	2	11.7	45.44
Paving Phase	24.1	15	11.7	29.13
Trenching Phase	24.1	5	11.7	48.55
Linear, Grubbing & Land Clearing	24.1	5	11.7	14.56
Linear, Grading & Excavation	24.1	30	11.7	349.54
Linear, Drainage, Utilities & Sub-Grade	24.1	25	11.7	267.01
Linear, Paving	24.1	18	11.7	84.96
		Total		**1,118.35**

HAULING AND VENDOR TRIPS

Trip Class	MPG [2]	One-Way Trips per Day	Trip Length (miles)	Fuel Used (gallons)
		HAULING TRIPS		
Demolition Phase	7.5	0	20.0	0.00
Site Preparation Phase	7.5	0	20.0	0.00
Grading Phase	7.5	19	20.0	100.80
Building Construction Phase	7.5	0	20.0	0.00
Paving Phase	7.5	0	20.0	0.00
Trenching Phase	7.5	19	20.0	1008.00
Linear, Grubbing & Land Clearing	7.5	0	20.0	0.00
Linear, Grading & Excavation	7.5	0	20.0	0.00
Linear, Drainage, Utilities & Sub-Grade	7.5	0	20.0	0.00
Linear, Paving	7.5	0	20.0	0.00
		Total		**1,108.80**

VENDOR TRIPS

Demolition Phase	7.5	0	8.4	0.00
Site Preparation Phase	7.5	0	8.4	0.00
Grading Phase	7.5	0	8.4	0.00
Building Construction Phase	7.5	1	8.4	53.76
Paving Phase	7.5	0	8.4	0.00
Trenching Phase	7.5	0	8.4	0.00
Linear, Grubbing & Land Clearing	7.5	0	8.4	0.00
Linear, Grading & Excavation	7.5	1	8.4	26.88
Linear, Drainage, Utilities & Sub-Grade	7.5	0	8.4	0.00
Linear, Paving	7.5	0	8.4	0.00
		Total		**80.64**

Total Gasoline Consumption (gallons)	**1,118**
Total Diesel Consumption (gallons)	**7,526**

Sources:

[1] United States Environmental Protection Agency. 2021. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES3.0.2* . September. Available at: https://www.epa.gov/system/files/documents/2021-08/420r21021.pdf.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2021. *National Transportation Statistics* . Available at: https://www.bts.gov/topics/national-transportation-statistics.

Appendix E

RCNM Modeling Worksheets

Construction Noise

Martinelli Center	Noise Level @ 50 ft	Single Family Res to the E	Garre Vineyard Res
Distance		125	1760
Site Preparation	78	70.041	47.069
Grading	78	70.041	47.069
Building Construction	74	66.041	43.069
Paving	73	65.041	42.069
Trenching	77	69.041	46.069

Pipeline	Noise Level @ 50 ft	Single Family Res to the E	Garre Vineyard Res
Distance		30	365
Linear, Grubbing & Land Clearing	80	84.437	62.734
Linear, Grading & Excavation	78	82.437	60.734
Linear, Utilities & Subgrade	80	84.437	62.734
Linear, Paving	73	77.437	55.734

Construction Vibration

Martinelli	Vibration @ 25 ft	On-Site Martinelli Center
Distance		100
Vibratory Roller	0.21	0.026
Large Bulldozer	0.089	0.011
Loaded Trucks	0.076	0.010
Small Bulldozer	0.003	0.000

Pipeline	Vibration @ 25 ft	Single Family Res on Garre Vineyard
Distance		365
Vibratory Roller	0.21	0.004
Large Bulldozer	0.089	0.002
Loaded Trucks	0.076	0.001
Small Bulldozer	0.003	0.000

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/17/2025
Case Description: Site Preparation

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Site Preparation	Residential	65.0	55.0	50.0

Description	Impact Device	Usage (%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	50.0	0.0
Backhoe	No	40		77.6	50.0	0.0
Excavator	No	40		80.7	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Night	Day	Calculated (dBA) Evening	Night	Day Evening	Night

Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	81.7	81.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/17/2025
Case Description: Grading

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Grading	Residential	65.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Backhoe	No	40		77.6	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	81.7	81.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/17/2025
Case Description: Building Construction

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Building Construction	Residential	65.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	50.0	0.0
Generator	No	50		80.6	50.0	0.0
Compressor (air)	No	40		77.7	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Calculated (dBA)				Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	80.6	77.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compressor (air)	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	80.6	80.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/17/2025
Case Description: Paving

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Paving	Residential	65.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Roller	No	20		80.0	50.0	0.0
Roller	No	20		80.0	50.0	0.0
Paver	No	50		77.2	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Roller	80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	77.2	74.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	80.0	78.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/17/2025
Case Description: Trenching

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Trenching	Residential	65.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	50.0	0.0
Backhoe	No	40		77.6	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	80.7	78.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/17/2025
Case Description: Linear_Grubbing & Land Clearing

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Linear_Grubbing & Land Clearing	Residential	65.0	55.0	50.0

Description	Impact Device	Usage (%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Tractor	No	40	84.0		50.0	0.0
Excavator	No	40		80.7	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	84.0	81.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/17/2025
Case Description: Linear_Grading & Excavation

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Linear_Grading & Excavation	Residential	65.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Roller	No	20		80.0	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Night	Day	Calculated (dBA) Evening	Night	Day Evening	Night

Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	84.0	82.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/17/2025
Case Description: Linear_Drainage_Utilities & Sub Grade

**** Receptor #1 ****

Description	Baselines (dBA) Land Use	Daytime	Evening	Night
Linear_Drainage_Utilities & Sub Grade	Residential	65.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Scraper	No	40		83.6	50.0	0.0
Man Lift	No	20		74.7	50.0	0.0
Compactor (ground)	No	20		83.2	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Scraper	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	74.7	67.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	83.2	76.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	83.6	81.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/17/2025
Case Description: Linear_Paving

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Linear_Paving	Residential	65.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Roller	No	20		80.0	50.0	0.0
Roller	No	20		80.0	50.0	0.0
Roller	No	20		80.0	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Roller	80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	80.0	77.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Appendix F

Transportation Impact Study

February 4, 2025

Ms. Aileen Mahoney
Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, CA 94612

CEQA Transportation Impact Study for the Martinelli Event Center Project

Dear Ms. Mahoney;

As requested, W-Trans has prepared a CEQA transportation impact study for the proposed development of the Martinelli Center located at 3585 Greenville Road in unincorporated Alameda County. The purpose of this letter is to address the project's trip generation as well as issues associated with site access, circulation, and safety.

Existing Conditions

The study area consists of Greenville Road which runs along the frontage of the project site. Greenville Road generally runs north-south and is classified as a major collector by the California Road System (CRS) Map. Within the project vicinity, Greenville Road has one travel lane in each direction and bike lanes north of Tesla Road. The nearby intersection of Tesla Road/Greenville Road is a four-legged signalized intersection with permitted left-turn phasing, marked crosswalks, and pedestrian phasing on all four legs.

Project Description

The proposed project includes modifications to the existing Martinelli Event Center, which include the extension of underground sewer facilities, the expansion of event center functions, and conversion of the office space into a wine country visitor center. For the purposes of this study, the greatest intensification of uses at the Martinelli Center has been assumed. These modifications would include an upgrade and expansion of the existing kitchen facilities, conversion of the existing office space (7,300 square feet) to a wine country visitor center and tasting room, and construction of additional on-site parking. It is anticipated that the Martinelli Center would host events with between 50 and 250 guests. The existing office functions would continue, with no reduction in trips from existing uses at the Martinelli Center.

Trip Generation

Vehicle trips associated with operation and maintenance of the extension of the underground sewer system would be nominal and limited to a relatively small number of trips every month. The anticipated trip generation for the proposed wine tasting space as well as for 50- and 250-person weekend events were estimated using information provided by the Martinelli Event Center with standard assumptions based upon other similar projects in the Bay Area. Based upon the current operation of the site and the proposed operation during special events, the following assumptions were made in the development of the tasting room and events trip generation.

- An average vehicle occupancy for event and tasting room visitors of 2.5 persons per vehicle was used based upon data gathered from similar projects.
- Staff are assumed to have solo vehicle occupancy.
- The tasting room would be open Fridays, Saturdays, and Sundays.
- All events would take place on weekends with an average of one per weekend.
- Eight staff are assumed for daily tasting room operations.
- Four additional staff are assumed for 50-person events, and 20 additional are assumed for 250-person events.

Based on these assumptions, a 50-person event would be expected to generate 48 trips, and a 250-person event would be expected to generate 240 trips. For 50-person and 250-person events, it was assumed that all guests would arrive during a single peak hour. Event staff would be expected to arrive outside of the guests' arrival and departure hours as they would be expected to be on-site for set-up and clean-up and would therefore not be included in the peak hour totals. The results of the weekend wine tasting and events trip generation analyses are presented in Table 1.

Table 1 – Weekend Trip Generation Summary

Event Component	Units	Daily		MD Peak Hour		
Trip Generator	Persons	Rate	Trips	Trips	In	Out
Tasting Room						
Staff	8	2	16	0	0	0
Visitors	100	0.8	80	20	10	10
Total	**108**		**96**	**20**	**10**	**10**
50-Person Event						
Staff	4	2	8	0	0	0
Attendees	50	0.8	40	20	20	0
Total	**54**		**48**	**20**	**20**	**0**
250-Person Event						
Staff	20	2	40	0	0	0
Attendees	250	0.8	200	100	100	0
Total	**270**		**240**	**100**	**100**	**0**

Alternative Modes

Alameda County Goals and Policies

The *Alameda County Bicycle & Pedestrian Master Plan*, 2019, provides the following goals regarding pedestrian facilities in the eastern unincorporated areas of the County.

- Create and maintain a safe and convenient pedestrian system that connects residential, commercial and recreational uses.
- Require circulation and site plans for individual developments that minimize barriers to access by pedestrians, individuals with disabilities and bicyclists.

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, bus shelters, etc. Currently, no sidewalks provide access for pedestrian travel in the vicinity of the proposed project site. The *Alameda County Bicycle & Pedestrian Master Plan* (2019) does not list any planned improvements along the project frontage.

Project Summary – Internal pedestrian access within the site would be provided via a network of paved pathways and curb ramps. All pedestrian facilities would need to be built to satisfy current Alameda County Public Works Department and Federal Americans with Disability Act (ADA) design standards.

Finding – Pedestrian facilities serving the project site are adequate and would not conflict with County policy provided that all built amenities are constructed to meet current Federal and County standards.

Bicycle Network

The *Alameda County Bicycle & Pedestrian Master Plan* classifies bikeways into five categories:

- **Class I Bicycle Paths/Multi-Use Paths** – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bicycle Lanes** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bicycle Routes** – signage only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Class III Bicycle Boulevards** - Bicycle boulevards are signed, shared roadways with especially low motor vehicle volumes such that motorists passing bicyclists can use the full width of the roadway. Bicycle boulevards prioritize convenient and safe bicycle travel through traffic calming strategies, wayfinding, and other measures.
- **Class IV Separated Bikeways** – a Class IV Separated Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

In the immediate project area, Class II bikeways exist on Greenville Road north of Tesla Road and on Tesla Road west of Greenville Road. Bicyclists ride in the roadway and/or on sidewalks along all other streets within the project study area. Table 2 summarizes the existing bicycle facilities in the project vicinity, as contained in the *Alameda County Bicycle & Pedestrian Master Plan*. There are no planned bicycle facilities within two miles of the project site.

Table 2 – Bicycle Facility Summary

Status Location	Facility Type	Length (miles)	Begin Point	End Point
Existing				
Greenville Rd	II	2.12	Patterson Pass Rd	Tesla Rd
Livermore Ave-Tesla Rd	II	4.00	Sixth St	Greenville Rd

Source: *Alameda County Bicycle & Pedestrian Master Plan*, 2019

Existing bicycle facilities together with shared use of minor streets provide adequate access for bicyclists within the vicinity of the project site, and the project would not affect any existing or proposed bicycle facilities.

Finding – Existing and planned bicycle facilities serving the project site would be adequate and the project is consistent with County policy.

Transit Facilities

Development sites which are located within a half mile (2,640-foot) walk of a transit stop are generally considered to be adequately served by transit. The proposed project is located two miles from the nearest bus stop, which is at the Lawrence Livermore National Laboratory/Sandia Transit Hub at East Avenue and Vasco Road. Due to this distance, it is highly unlikely that anyone visiting the site would use transit to access it.

Wheels Dial-a-Ride

Wheels Dial-A-Ride is a door-to-door public shared-ride transportation service for ADA (Americans with Disabilities Act) paratransit eligible passengers. Dial-A-Ride transports riders from their origin to their destination in vehicles equipped with a wheelchair lift.

Altamont Corridor Express (ACE)

The Altamont Corridor Express (ACE) is a commuter rail service that operates between Stockton and San Jose during weekday commute peak hours only. The nearest station with ACE services is approximately 2.4 miles from the project site at 525 South Vasco Road in Livermore. Westbound ACE commuter rail service is currently comprised of four trains with scheduled stops at the Vasco Road station at 5:10 a.m., 6:35 a.m., 7:40 a.m., and 8:32 a.m., and eastbound ACE service is available at 3:27 p.m., 4:42 p.m., 5:42 p.m., and 6:42 p.m.

On-Demand Transportation Services

On-demand private vehicle services (e.g., taxi, Uber, Lyft, GoGoGrandparent, etc.) are available in the project vicinity 24 hours a day. These vehicles can be used for trips both locally and to farther destinations.

Finding – The project site is not adequately served by transit since existing transit stops are more than one-half mile away, and therefore it is not likely that any employees or visitors would use transit services to reach the project site.

Significance Finding – The proposed project would not conflict with any plans or policies related to pedestrian, bicycle, and transit facilities or travel. The project's impact on such modes would therefore be less than significant.

Vehicle Miles Traveled (VMT)

Senate Bill (SB) 743 established VMT as the metric to be applied in determining transportation impacts associated with development projects. The Alameda County Transportation Commission (ACTC) has adopted guidance on the evaluation of VMT impacts provided by the California Governor's Office of Planning and Research (OPR) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*, 2018.

As the VMT guidelines do not directly address this particular land use, it was necessary to first consider potential VMT implications by assessing whether the project qualifies for applicable screening criteria, as described below.

The OPR Technical Advisory identifies several criteria that may be used by jurisdictions to identify certain types of projects that are unlikely to have a significant VMT impact and can be "screened" from further analysis. Certain types of projects, including small projects, which OPR identifies as generating fewer than 110 new vehicle trips per day, are unlikely to have a VMT impact and can therefore be "screened" from further VMT analysis. This means that for uses which have trip generation characteristics that vary over the course of the year, such as the proposed event center expansion, the annualized average daily trip generation should be taken into consideration when assessing VMT impacts. Annualized average values are used in other CEQA topic areas, such as Air Quality and Greenhouse Gas (GHG) emissions analyses and to further the State's GHG reduction targets. While assessment of worst-case seasonal conditions is relevant for operational analyses such as queuing, it would be inconsistent with typical VMT practices to assess the project based on peak activity. To determine the applicability of the small project screening criterion, the proposed project's annualized estimated daily trip generation potential was explored.

The proposed event center expansion is anticipated to generate approximately 61.5 annual average daily vehicle trips, which falls below the 110-trip threshold. As a result, it is reasonable to conclude that the project can be presumed to have a less-than-significant impact on VMT. Table 3 presents the annual average daily trip generation.

Table 3 – Daily and Annual Trip Generation

Event	Days per year	Attendance	Staff	Attendee Trips	Staff Trips	Total Daily Trips	Total Annual Trips
Tasting Room	156	100	8	80	16	96	**14,976**
50-person Events	26	50	4	40	8	48	**1,248**
250-person Events	26	250	20	200	40	240	**6,240**
Total Annual Event Center Trips							**22,464**
Annual Average Event Center Daily Trips						**61.5**	

Significance Finding –The proposed project would be expected to result in fewer than 110 daily trips when averaged over the course of an entire year; therefore, the state's small project screening threshold would apply, and the project can be presumed to have a less-than-significant VMT impact.

Site Circulation and Access

Vehicular Site Access

Access to the site is currently provided by a single driveway on the west side of Greenville Road located approximately 2,200 feet north of Tesla Road. The project would retain use of this full-access driveway and no additional driveways are proposed.

Sight Distance

At driveways, a substantially clear line of sight should be maintained between the driver of a vehicle waiting to enter the street and the driver of an approaching vehicle. Sight distances along Greenville Road at the project driveway were evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. Based on the posted speed limit of 45 mph, the minimum stopping sight distance required on Greenville Road is 360 feet. A review in the field shows that sight distance at the project driveway exceeds 360 feet and is therefore adequate.

For a motorist traveling northbound on Greenville Road intending to turn left into a project driveway, the stopping sight distance for a following driver also extends at least 360 feet, which also exceeds the required distance and is more than adequate for the posted speed limit.

To maintain the sight distance at the proposed driveway, it is suggested that, in accordance with the Federal Highway Administration's guide on *Vegetation Control for Safety*, 2008, any vegetation (or new signage or monuments) near the project's driveway should be trimmed to an appropriate height of three feet or less and trees trimmed so that nothing hangs below a height of seven feet from the surface of the roadway. This provides a gap in vegetation for drivers to observe oncoming traffic and safely maneuver from a driveway.

Finding – Adequate sight distance is available at the project driveway to accommodate turns entering and exiting the site.

Recommendations – To maintain adequate sight lines, it is recommended that vegetation or new monuments or signage along the project frontages should be designed and maintained to ensure that all features lie below three feet in height or above seven feet. It is recommended that existing or planned vegetation along the project frontage on Greenville Road be trimmed and maintained to ensure adequate visibility.

Significance Finding – With implementation of a landscaping management program to control vegetation within the sight triangles, the proposed project would have a less-than-significant impact on safety as it would not introduce any new hazards.

Emergency Vehicle Access

The project's driveway and internal parking lot circulation network would need to be designed to meet current County standards and thus can be expected to accommodate the access requirements for passenger vehicles. Vehicle access would be provided within the internal parking lot via 26-foot-wide drive aisles. These aisles would have sufficient width to accommodate two-way traffic operations for circulating vehicles as well as parking maneuvers to/from parking spaces.

Emergency response vehicles would be able to access the site via the network of internal aisles. All of the proposed internal aisles would be 26 feet wide, which exceeds the minimum width of 20 feet for fire access required by the *California Fire Code (CFC), Section 503.2.1,* which states, "Fire apparatus access roads shall have an unobstructed width of not less than 20 feet, exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than thirteen feet and six inches." Therefore, access and on-site circulation would be adequate to accommodate turning movements for emergency vehicles.

The Alameda County Fire Department (ACFD) provides rapid response to fires, medical emergencies, rescues, and other emergency calls for service throughout Alameda County. The closest ACFD location to the proposed project site is Station #20 located 1.3 miles away at 7000 East Avenue. The ACFD has sole responsibility for determining the suitability of the project site for adequate fire apparatus vehicle access.

Since all roadway users must yield the right-of-way to emergency vehicles when using their sirens and lights, the added project-generated traffic would not impact access or response times for emergency vehicles.

Significance Finding – The project would result in a less-than-significant impact regarding adequacy of emergency response since emergency vehicles are able to access the site from the public street and all roadway users must yield to emergency vehicles when using their lights and sirens.

Conclusions and Recommendations

- The proposed project would be expected to generate an average of approximately 62 new daily trips from the event center expansion.

- Pedestrian and bicycle facilities as well as transit access are adequate to serve the project as access by pedestrians, cyclists, and transit users is not anticipated given both the location and the type of land use. The project would not conflict with any plans or policies for these modes, resulting in a less-than-significant impact.

- The proposed project is presumed to have a less-than-significant transportation impact on vehicle miles traveled (VMT) since the project is anticipated to generate on average fewer than 110 daily trips.

- The project's driveway has adequate sight distances for ingress and egress vehicles; it is recommended that existing and proposed vegetation is maintained to ensure the continued adequacy of vehicle sight lines. With a maintenance program implemented the project would not introduce any hazards and its impact would be less than significant.

- The proposed project is expected to result in a less-than-significant impact on emergency response times and emergency vehicle access to the site.

Thank you for giving W-Trans the opportunity to provide these services. Please call if you have any questions.

Sincerely,

Kenny Jeong, PE (Traffic)
Senior Engineer

Mark Spencer, PE (Traffic)
Senior Principal, President

REGISTERED PROFESSIONAL ENGINEER
MARK E. SPENCER
TR001737
TRAFFIC
STATE OF CALIFORNIA

MES/kbj- jfp/ALX052.L1

Appendix G

AB 52 Correspondence Tracker

Greenville Road Sewer Extension Project
AB 52 Correspondence Tracker

Contact	Date Email Sent	Date Letter Sent to Contact	Date of Response	Comments/Concerns
Amah Mutsun Tribal Band Valentin Lopez, Chairperson P.O. Box 5272 Galt, California 95632 Phone: (916) 743-5833 Email: vjtestingcenter@aol.com	4/2/25	4/3/25	No Response	Return receipt received 4/7/25
Amah Mutsun Tribal Band Ed Ketchum, Vice-Chairperson Phone: (530) 578-3864 Email: aerieways@aol.com	4/2/25	4/3/25	No Response	05/08/25 5/21/25 envelope returned, unable to forward
Amah Mutsun Tribal Band of Mission San Juan Bautista Garry Zimmer, Senior Cultural Monitor & Consultant P.O. Box 214211, 2929 Fulton Avenue Unit 19 Sacramento, California 95821 Phone: (408) 771-8901 Email: garryzimmer@gmail.com	4/2/25	4/3/25	No Response	5/21/25 envelope returned, unable to forward
Amah Mutsun Tribal Band of Mission San Juan Bautista Michelle Zimmer, Senior Cultural Monitor & Consultant P.O. Box 214211, 2929 Fulton Avenue Unit 19 Sacramento, California 95821 Phone: (916) 730-9468 Email: michellezimmer1966@gmail.com	4/2/25	4/3/25	No Response	5/28/25 Return to sender, address unknown

Contact	Date Email Sent	Date Letter Sent to Contact	Date of Response	Comments/Concerns
Amah Mutsun Tribal Band of Mission San Juan Bautista Christopher Zimmer, Senior Cultural Monitor & Consultant, Councilman P.O. Box 214211, 2929 Fulton Avenue Unit 19 Sacramento, California 95821 Phone: (650) 520-8418 Email: cdzimmer93@gmail.com	4/2/25	4/3/25	No Response	5/21/25 envelope returned, unable to forward
Amah Mutsun Tribal Band of Mission San Juan Bautista Shelby Brown, Senior Cultural Monitor & Consultant, Councilwoman 2451 Tyrolean Way Sacramento, California 95821 Phone: (916) 276-8380 Email: shelbyzimmer1997@gmail.com	4/2/25	4/3/25	No Response	5/28/25 Returned to sender, unable to forward.
Amah Mutsun Tribal Band of Mission San Juan Bautista Irenne Zwierlein, Chairperson 3030 Soda Bay Road Lakeport, California 95453 Phone: (916) 730-9468 Email: amahmutsuntribalcommunications@gmail.com	4/2/25	4/3/25	No Response	5/21/25 envelope returned, unable to forward
Confederated Villages of Lisjan Nation Cheyenne Gould, Tribal Cultural Resource Manager 10926 Edes Avenue Oakland, Calfornia 94603 Phone: (510) 575-8408 Email: cvltribe@gmail.com	4/2/25	4/3/25		4/7/25. Returned to sender, unable to forward. New address is Confederated Villages of Lisjan Nation, PO BOX 6487, Oakland CA 94603

Contact	Date Email Sent	Date Letter Sent to Contact	Date of Response	Comments/Concerns
Confederated Villages of Lisjan Nation Deja Gould, Language Program Manager 10926 Edes Avenue Oakland, Calfornia 94603 Phone: (510) 575-8408 Email: cvltribe@gmail.com	4/2/25	4/3/25		4/7/25. Returned to sender, unable to forward. New address is Confederated Villages of Lisjan Nation, PO BOX 6487, Oakland CA 94603. Met w/ Corrina Gould and Lucy Gill on 5/29/25. Corrina would like to know if the sewer pipe will go under ground at the water way or tie to the bridge. Please advise her when we know. Jaimie advised her that the design will be a two-phase effort and that we will advise the tribe when we know. No consultation opened.
Confederated Villages of Lisjan Nation Corrina Gould, Chairperson 10926 Edes Avenue Oakland, Calfornia 94603 Phone: (510) 575-8408 Email: cvltribe@gmail.com	4/2/25	4/3/25	4/14/25	Forwarded to: PO BOX 6487, Oakland, CA 94603-0487. Return receipt received 4/21/25 Met w/ Corrina Gould and Lucy Gill on 5/29/25. Corrina would like to know if the sewer pipe will go under ground at the water way or tie to the bridge. Please advise her when we know. Jaimie advised her that the design will be a two-phase effort and that we will advise the tribe when we know. No consultation opened.
Costanoan Rumsen Carmel Tribe Carla Munoz, Tribal Council Phone: (415) 690-3110 Email: crct.crd@gmail.com	4/2/25	4/3/25		Responded to email on 4/2/25 and would like to set a meeting once they go over any reports we may have on this issue. On 4/8/25 JO sent the cultural resources study for the project and has not heard back from the tribe. No consultation opened.
Costanoan Rumsen Carmel Tribe Samuel Rodriguez, Cultural Resource Officer 29539 Oakbridge Drive Menifee, California 92586 Phone: (760) 681-6860 Email: crct.crd@gmail.com	4/2/25	4/3/25		Responded to email on 4/2/25 and would like to set a meeting once they go over any reports we may have on this issue. Return receipt received 4/7/25. See note above re Costanoan Rumsen.

Contact	Date Email Sent	Date Letter Sent to Contact	Date of Response	Comments/Concerns
Costanoan Rumsen Carmel Tribe Henry Muñoz, Cultural Resource Officer 108 South Acacia Rialto, California 92376 Phone: (909) 254-1610 Email: crct.crd@gmail.com	4/2/25	4/3/25		Responded to email on 4/2/25 and would like to set a meeting once they go over any reports we may have on this issue. Return receipt received 4/10/25. See note above re Costanoan Rumsen.
Indian Canyon Mutsun Band of Costanoan Kanyon Sayers-Roods, MLD Contact 1615 Pearson Court San Jose, California 95122 Phone: (408) 673-0626 Email: kanyon@kanyonkonsulting.com	4/2/25	4/3/25	4/21/25	Return to sender, address unknown
Indian Canyon Mutsun Band of Costanoan Ann Marie Sayers, Chairperson P.O. Box 28 Hollister, California 95024 Phone: (831) 637-4238	None provided	4/3/25		Return to sender, address unknown
Muwekma Ohlone Tribe of the SF Bay Area Charlene Nijmeh, Chairperson 1169 S. Main Street, Suite 336 Manteca, California 95377 Phone: (408) 464-2892 Email: nijmeh@muwekma.org	4/2/25	4/3/25		Return to sender, address unknown
Muwekma Ohlone Tribe of the SF Bay Area Richard Massiatt, Councilmember/MLD Tribal Representative 1169 S. Main Street, Suite 336 Manteca, California 95377 Phone: (209) 321-0372 Email: rmassiatt@muwekma.org	4/2/25	4/3/25		Return receipt received 4/7/25. Appointment scheduled for 5/15/25. Had successful appointment and reported back to Kat.

Contact	Date Email Sent	Date Letter Sent to Contact	Date of Response	Comments/Concerns
Northern Valley Yokut/Ohlone Tribe Timothy Perez, Tribal Compliance Officer P.O. Box 717 Linden, California 95236 Phone: (209) 662-2788 Email: huskanam@gmail.com	4/2/25	4/3/25		Return receipt received 4/10/25
Northern Valley Yokut/Ohlone Tribe Katherine Perez, Chairperson P.O. Box 717 Linden, California 95236 Phone: (209) 649-8972 Email: canutes@verizon.net	4/2/25	4/3/25		Responded to email on 4/2/25 and stated they would like to discuss topics listed, formal request to observe and participate in cultural resource surveys, etc. Return receipt received 4/10/25. Sent cultural resources study on 4/8/25. Set meeting for 5/1/25 but asked to reschedule. Did not hear back from Katherine on any further request to meet. No consultation opened.
The Ohlone Indian Tribe Desiree Vigil, Tribal Historic Preservation Officer 259 Winwood Avenue Pacifica, California 94044 Phone: (650) 290-0245 Email: dirwin0368@yahoo.com	4/2/25	4/3/25		4/7/25. Returned to sender, unable to forward.
The Ohlone Indian Tribe Vincent Medina, Cultural Leader 17365 Via Del Rey San Lorenzo, California 94580 Phone: (510) 610-7587 Email: vincent.d.medina@gmail.com	4/2/25 but BOUNCED	4/3/25		5/21/25 envelope returned, unable to forward

Contact	Date Email Sent	Date Letter Sent to Contact	Date of Response	Comments/Concerns
The Ohlone Indian Tribe Andrew Galvan, Chairperson P.O. Box 3388 Fremont, California 94539 Phone: (510) 882-0527 Fax: (510) 687-9393 Email: chochenyo@aol.com	4/2/25	4/3/25		Return receipt received 4/9/25
Wilton Rancheria Herbert Griffin, Executive Director of Cultural Preservation 9728 Kent Street Elk Grove, California 95624 Phone: (916) 683-6000 Email: hgriffin@wiltonrancheria-nsn.gov	4/2/25	4/3/25		Responded to email on 4/2/25 and appreciated being notified but does not have any comments. Return receipt received 4/10/25
Wilton Rancheria Cultural Preservation Department 9728 Kent Street Elk Grove, California 95624 Phone: (916) 683-6000 Email: cpd@wiltonrancheria-nsn.gov	4/2/25	4/3/25		Return receipt received 4/10/25
Wuksachi Indian Tribe/Eshom Valley Band Kenneth Woodrow, Chairperson 1179 Rock Haven Court Salinas, California 93906 Phone: (831) 443-9702 Email: kwood8934@aol.com	4/2/25	4/3/25		Return receipt received 4/7/25