DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

FOR THE

MIRABEL ROAD CORRIDOR IMPROVEMENTS AND WEST COUNTY TRAIL PROJECT

October 2025

Prepared For:

County of Sonoma
Public Infrastructure Department
400 Aviation Boulevard, Suite 100
Santa Rosa, CA 95403

Prepared By:

Circlepoint
1625 Clay Street, Suite 700
Oakland, CA 94612

This Page Intentionally Left Blank

Table of Contents

List of Figures

List of Tables

Appendix

Appendix A: Air Quality, Greenhouse Gas Emissions, and Energy Study
Appendix B: Biological Resources Report
Appendix C: Delineation of Wetlands and Other Waters
Appendix D: Tree Inventory

1.0 INTRODUCTION & PURPOSE

1.1 Purpose and Scope of the Initial Study

This Initial Study/ Mitigated Negative Declaration (IS/MND) has been prepared in accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] Section (§) 21000 et seq.) and its Guidelines (California Code of Regulations [CCR], Title 14, §15000 et seq.), to evaluate the potential environmental effects associated with the construction and operation of the Mirabel Road Corridor Improvements and West County Trail Project (proposed project). Pursuant to Section 15367 of the State CEQA Guidelines, the County of Sonoma (County) is the lead agency for the proposed project. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project.

As set forth in the State CEQA Guidelines Section 15070, an IS/MND can be prepared when the Initial Study has identified potentially significant environmental impacts, but revisions have been made to a project, prior to public review of the Initial Study, that would avoid or mitigate the impacts to a level considered less than significant, and there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.

1.2 Summary of Findings

Section 4.0 of this document contains the Environmental Checklist that was prepared for the proposed project pursuant to CEQA requirements. The Environmental Checklist indicates whether the proposed project would result in no impact, less than significant impacts, less than significant impacts with the implementation of mitigation measures, or potentially significant impacts. These impacts are identified and discussed within each subsequent resource area throughout this document.

Based on the environmental checklist (Section 4.0) completed for the proposed project and supporting environmental analyses, the proposed project would primarily result in no impact or a less than significant impact to environmental issue areas identified in Section 4, Environmental Analysis. The project's impacts on the following issue areas would be less than significant with mitigation incorporated: Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Noise, and Tribal Cultural Resources. All impacts would be less than significant after mitigation.

As set forth in the State CEQA Guidelines Section 15070 (Decision to Prepare a Negative or Mitigated Negative Declaration), a public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration for a project subject to CEQA when:

(a) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or

(b) The initial study identifies potentially significant effects, but:

    (1) Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would

avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and

(2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

This IS/MND contains and constitutes substantial evidence supporting the conclusion that preparation of an environmental impact report (EIR), or other more involved environmental document, is not required prior to approval of the project by the County.

1.3 Initial Study Public Review Process

A Notice of Intent (NOI) to adopt the MND based on State CEQA Guidelines § 15072, was prepared and submitted to the State Clearinghouse for filing and circulation. The document was made available for a 30-day public review period. During this time the public, interested parties, stakeholders, and any state or local agency could provide comments on the document. The IS/MND may be viewed at the County of Sonoma's website at the following link: https://permitsonoma.org/divisions/planning/planningdocumentlibrary, on the State Clearinghouse website, or at the County of Sonoma, Sonoma Public Infrastructure Department, located:

Sonoma Public Infrastructure
400 Aviation Blvd, Suite 100
Santa Rosa, CA 95403

Written comments on the IS/MND should reference the "Mirabel Road Corridor Improvements and West County Trail Project," and be addressed to the Lead Agency at the following address:

County of Sonoma Public Infrastructure
Attn: Olguin Caban
400 Aviation Boulevard, Suite 100
Santa Rosa, CA 95403
Or,

Olguin.Caban@sonomacounty.gov

The County of Sonoma as the Lead Agency for this project, will consider comments received and in accordance with (State CEQA Guidelines § 15074[b]), decide whether to adopt the IS/MND prior to taking action to approve the project. If the IS/MND is adopted and the proposed project is approved, the County also will adopt the Mitigation Monitoring and Reporting Program (MMRP), which will detail the mitigation measures, timing of mitigation implementation, and list the responsible parties.

1.4 Report Organization

This document has been organized into the following sections:

Section 1.0 – Introduction & Purpose. This section provides an introduction and overview describing the conclusions of the Initial Study.

Section 2.0 – Project Description. This section identifies key project characteristics and includes a list of anticipated discretionary actions.

Section 3.0 – Initial Study Checklist. The Environmental Checklist Form provides an overview of the potential impacts that may or may not result from project implementation.

Section 4.0 – Environmental Analysis. This section contains an analysis of environmental impacts identified in the environmental checklist.

Section 5.0 – Acronyms and Abbreviations. This section provides a list of all acronyms and abbreviations used throughout the document.

Section 6.0 – References. The section identifies resources used to prepare the Initial Study.

2.0 DESCRIPTION OF PROPOSED PROJECT

2.1 Project Overview

The proposed project would widen Mirabel Road from State Route (SR) 116 to River Road in Forestville to accommodate Class I bike path, Class II bike lanes and northbound and southbound left turn lanes at intersection of Davis Road and Giusti Road as part of the Mirabel Road Corridor Improvements and West County Trail project. The purpose of this project is to improve the mobility and safety of the existing roadway for all modes of transportation by constructing left turn lanes at Davis Road and Giusti Road intersection and widening the narrow segments of the Mirabel Road to meet the standards of a Class II bike lane. The project would also construct an 8 foot wide Class I bike path along the east side of Mirabel Road from SR 116 to Davis Road. Roadway drainage facilities and utility poles would be relocated to accommodate the roadway widening.

2.2 Project Location

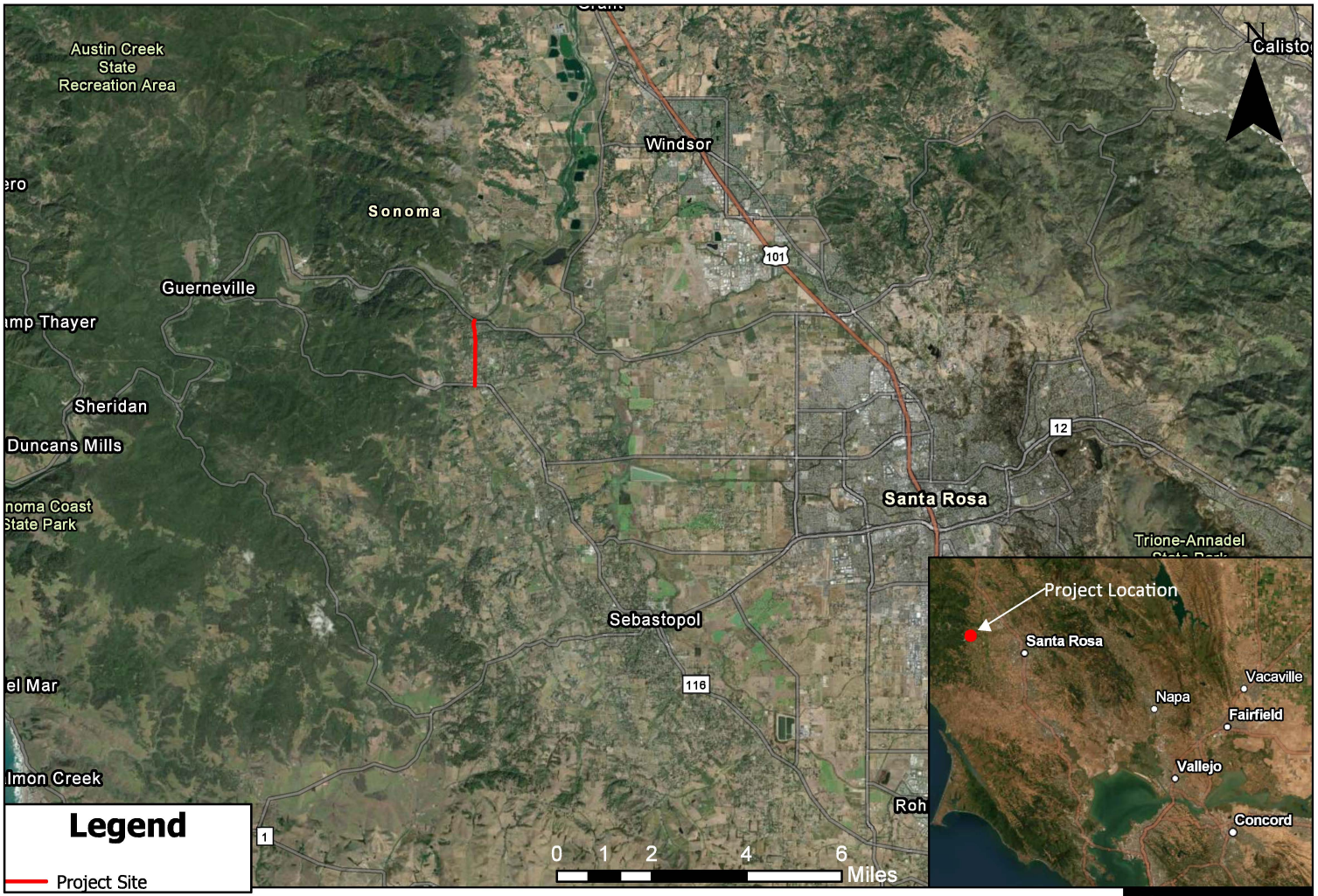
Regional Vicinity

The community of Forestville is located in the western unincorporated portion of Sonoma County, northwest of Sebastopol and east of the Russian River. Forestville covers approximately 5 square miles in the foothills of the coastal range, characterized by rolling hills and wooded areas. The community is bordered to the north by the Russian River, to the east by Graton and Sebastopol, to the south by the Laguna de Santa Rosa, and to the west by the unincorporated areas leading toward Guerneville. State Route 116 runs east/west through Forestville, providing key access to neighboring communities. Please see **Figure 2-1** Regional Map. The project area is depicted on the Sebastopol quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series. See **Figure 2-2** USGS Topographic Map.

Local Vicinity

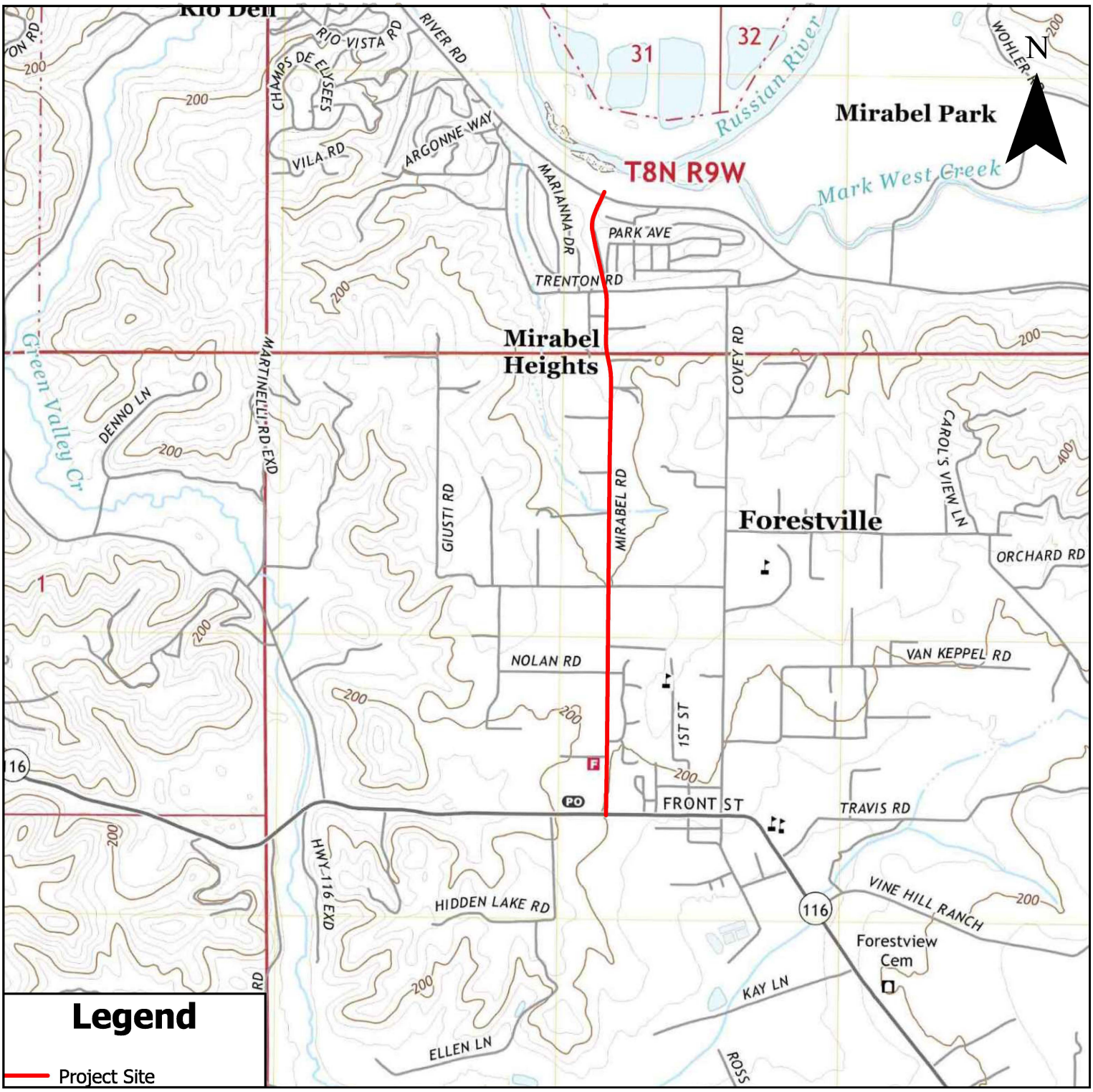
The project area is located on 1.38 linear miles along Mirabel Road in the unincorporated area of Forestville, Sonoma County. Mirabel Road is a two-lane County major collector roadway extending approximately 1.38 miles in a north-south direction between SR 116 and River Road. It is a stop sign controlled intersection on the approaches to both roadways. Four-foot-wide paved shoulders are in place only in proximity to SR 116 and along an extended downhill grade (south to north) just south of Trenton Road. There is no pedestrian and bicycle connectivity to the existing segment of the West County Trail located south of SR 116 in the project area. The posted speed limit varies from 35 to 45 miles per hour.

A left turn lane is provided on the approach to SR 116, but not on the approaches to other intersections. A sidewalk is provided along the east side of Mirabel Road between approximately 400 feet north of SR 116 and the Forestville Youth Park. Within the project area, one crosswalk is present at the intersection with Trenton Road. There are four existing Sonoma County Transit bus stops located on both sides of Mirabel Road at the intersections of SR 116, Giusti Road, Trenton Road, and River Road. Please see **Figure 2-3** Vicinity Map.



Regional Map **Figure 2-1**

Source: Mark Thomas & Co, 2024



USGS Topographic Map

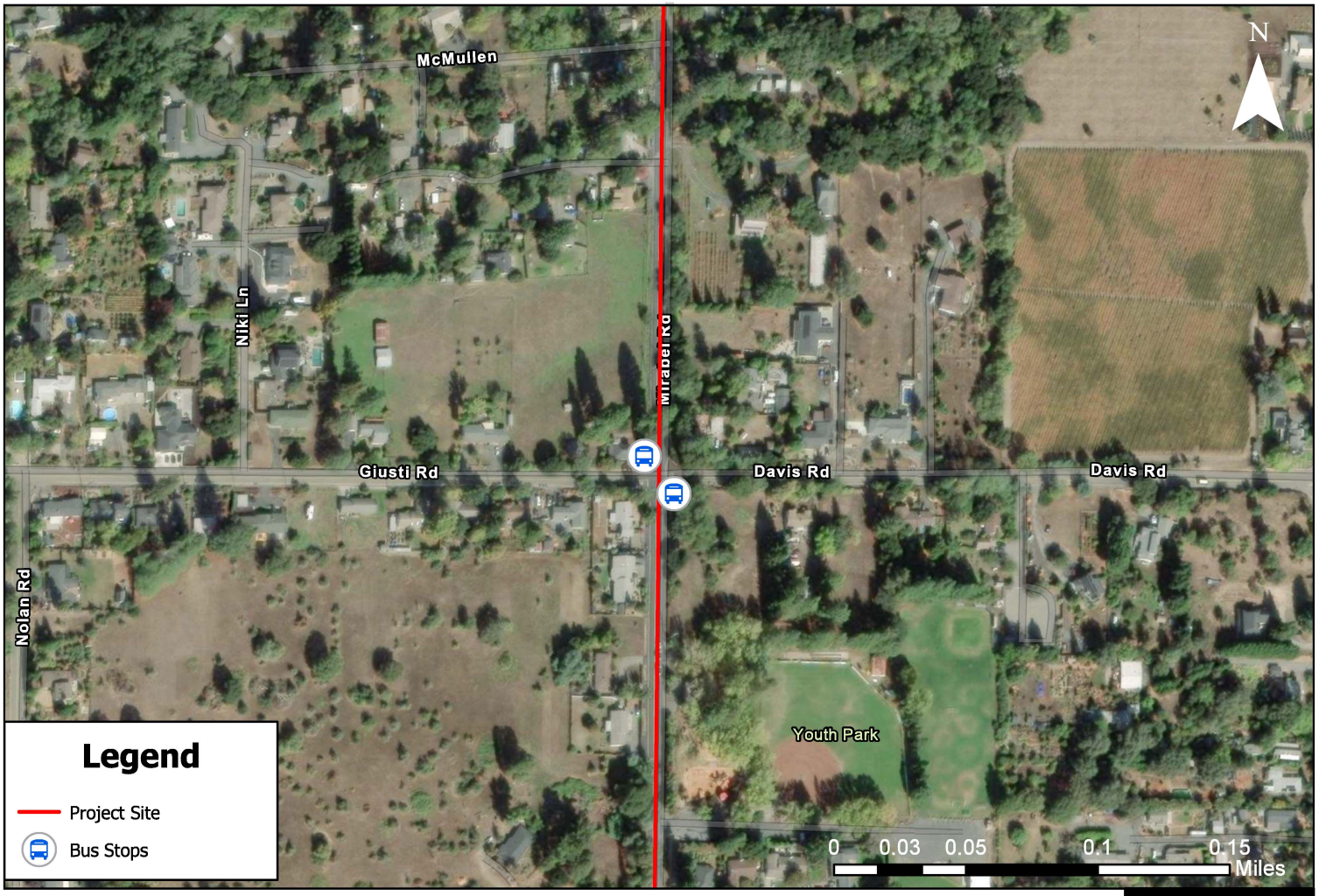
Figure 2-2

Source: United States Geological Survey, 2021; National Geographic Society, 2021; Mark Thomas & Co, 2024

Vicinity Map (Map 1 of 3)

Figure 2-3

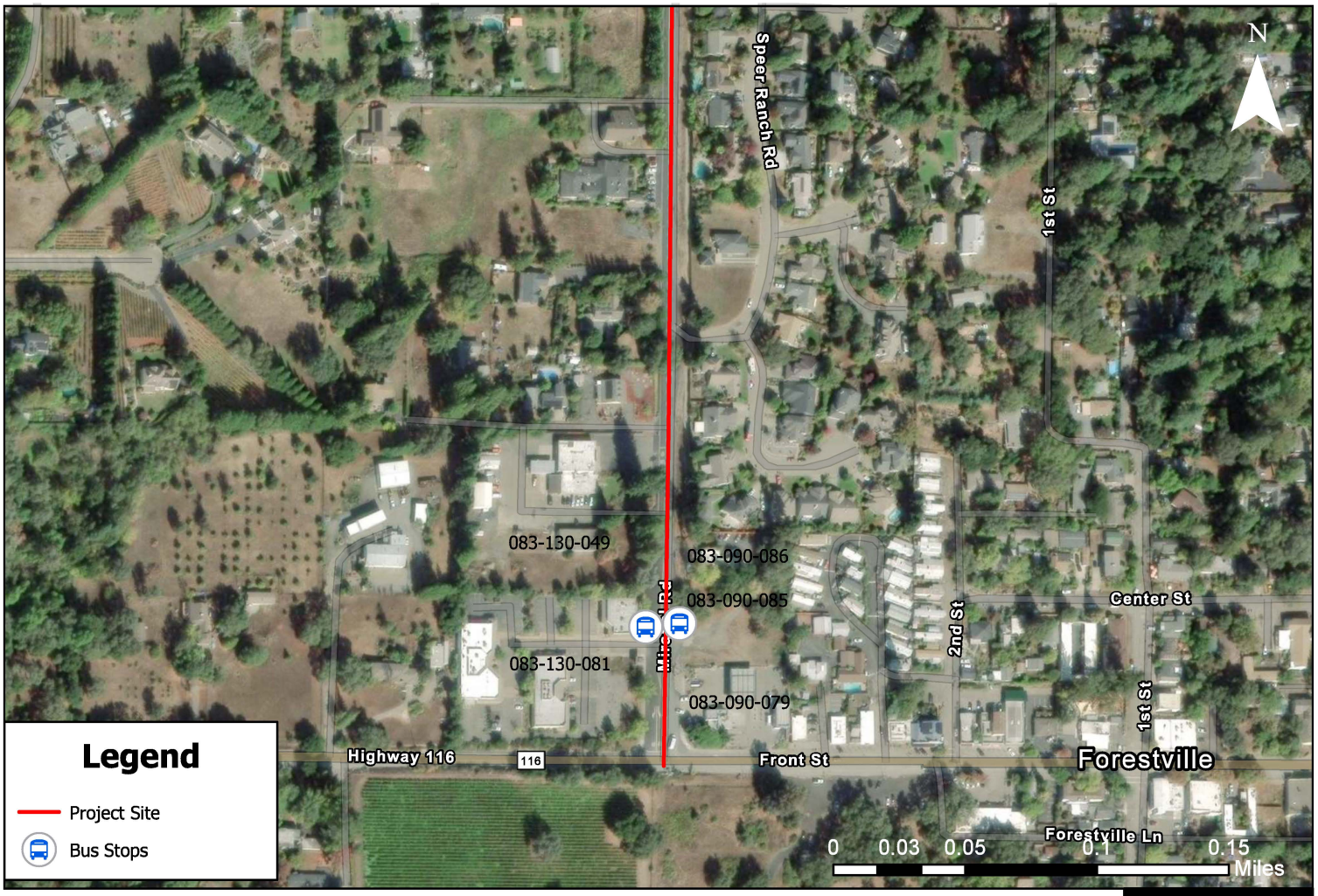
Source: Mark Thomas & Co, 2024



Vicinity Map (Map 2 of 3)

Figure 2-4

Source: Mark Thomas & Co, 2024



Vicinity Map (Map 3 of 3)

Figure 2-5

Source: Mark Thomas & Co, 2024

The project would also result in permanent right-of-way (ROW) acquisition of approximately 0.34 acres and one public access easement on the Forestville Youth Park property. The Assessor's Parcel Number (APN), address, acreage, right-of-way acquired, existing land uses, and description of the acquired property are shown in **Table 2-1**. See **Figure 2-8** to **Figure 2-15** for ROW acquisitions along Mirabel Road.

Table 2-1: Project Parcels and Acquisition Areas

APN and Address	Acres	ROW to be Acquired	Existing Zoning	Existing Land Uses	Description of Acquired Property
083-090-079 7001 Highway 116 Forestville, CA 95436	1.05	0.003 acres	Limited Commercial District (LC)/Highway 116 Scenic Corridor (LG/116)	Limited Commercial	Gas Station
083-090-085 0 Mirabel Road Forestville, CA 95436	0.80	0.002 acres	Neighborhood Commercial District (C1)/ Highway 116 Scenic Corridor (LG/116)	Limited Commercial	Undeveloped Gravel Driveway
083-090-086 7131 Mirabel Road Forestville, CA 95436	0.53	0.003 acres	Neighborhood Commercial District (C1)/ Highway 116 Scenic Corridor (LG/116)	Limited Commercial	Russian River Utility Offices
083-120-074 6810 Nolan Rd, Forestville, CA 95436	0.5058	0.02 acres	Rural Residential District (RR) /, Highway 116 Scenic Corridor (LG/116)	Urban Residential	Residential
083-120-083 6935 Mirabel Rd, Forestville, CA 95436 7069 Mirabel Rd, Forestville, CA 95436	7.93	0.06 acres	Public Facilities (PF)/ Highway 116 Scenic Corridor (LG/116)	Public / Quasi-Public	Public Park

APN and Address	Acres	ROW to be Acquired	Existing Zoning	Existing Land Uses	Description of Acquired Property
083-120-098 6693 Davis Rd, Forestville, CA 95436	2.99	0.15 acres	Rural Residential District (RR) /, Highway 116 Scenic Corridor (LG/116)	Urban Residential	Residential
083-152-001 6710 Davis Rd, Forestville, CA 95436	0.41	0.002 acres	Agriculture and Residential District (AR)/ B6 2, Highway 116 Scenic Corridor (LG/116)	Rural Residential	Residential
083-152-002 7385 Mirabel Rd, Forestville, CA 95436	244.4	0.01 acres	Agriculture and Residential District (AR)/ B6 2, Highway 116 Scenic Corridor (LG/116)	Rural Residential	Residential
083-152-004 6672 Davis Rd, Forestville, CA 95436	0.94	0.01 acres	Agriculture and Residential District (AR)/ B6 2, Highway 116 Scenic Corridor (LG/116)	Rural Residential	Residential
083-152-008 7461 Mirabel Rd, Forestville, CA 95436	1.89	0.08 acres	Agriculture and Residential District (AR)/ B6 2, Highway 116 Scenic Corridor (LG/116)	Rural Residential	Residential

2.3 Environmental Setting

Regional Setting

Regionally, the community of Forestville is located in northern California, approximately 65 miles north of San Francisco and about 10 miles west of Santa Rosa. Forestville is part of the North Coast subregion of the greater San Francisco Bay Area. The project area is situated within Planning Area 3 – Russian River and Environs, and falls under the Forestville Area Plan. Hydrologically, the project area is within the Russian River Watershed, part of the North Coast region. The watershed is characterized by the Russian River, which flows southward into the Pacific Ocean between Jenner and Goat Rock Beach in Sonoma County.

Local Setting

The project area encompasses a 1.38-mile stretch along Mirabel Road in Forestville, an unincorporated community in Sonoma County, California. Residential uses dominate the surrounding area of Forestville. Specifically, within the project area, land uses include rural residential, urban residential, public facilities, and limited commercial development. The project area is bordered by residential developments to the northeast and southwest, small commercial properties to the southeast, and open space to the northwest. The site is characterized as being highly disturbed and developed, consisting primarily of Mirabel Road and its adjacent roadway shoulders. The area includes ruderal/developed land, non-native annual grassland, and riparian woodland communities.

The project area is relatively flat, with a gentle slope from northeast to southwest. Elevation ranges from approximately 100 to 140 feet above mean sea level. Two aquatic features are present along or near the project area: a roadside ditch along Mirabel Road and an unnamed intermittent drainage that flows northeast to southwest beneath the roadway.

Existing Transportation Network

The existing conditions along the 1.38-mile stretch of Mirabel Road lack efficient and safe infrastructure for both pedestrian and bicycle circulation. Sidewalks are either absent or incomplete along much of the roadway, forcing pedestrians to walk alongside vehicular traffic, which poses safety concerns. There are also no dedicated bike lanes, which limits safe access for cyclists and increases the potential for conflicts between vehicles and non-motorized users. The project area does not have pedestrian and bicycle connectivity to the existing segment of the West County Trail located south of SR 116. Additionally, many segments of the road do not meet current Americans with Disabilities Act (ADA) standards, further complicating safe passage for individuals with mobility impairments.

Please refer to **Figure 2-3** for a detailed depiction of the current configuration of the project area.

Land Use Designation and Zoning

Figure 2-6 and **Figure 2-7** show the surrounding land use and zoning designations, and **Figure 2-8** to **Figure 2-15** show the project area and portions of adjacent parcels that would be acquired, or have improvements made, as well as areas needed for temporary construction easements. A description of parcels included in the project is shown above in **Table 2-1**.

2.4 Proposed Project

The proposed project would implement roadway and intersection improvements along Mirabel Road ROW and within portions of adjacent parcels as shown in **Table 2-1** above. The proposed project would address pedestrian and bicycle mobility and safety by widening Mirabel Road to accommodate Class II bike lanes, constructing a Class I bike path along the east side of the road, and improving pedestrian facilities to meet ADA requirements. The proposed project would provide pedestrian and bicycle connectivity to the existing segment of the West County Trail located south of SR 116. These enhancements aim to provide safer and more efficient transportation options for all users and to enhance mobility and safety of the existing roadway for all modes of transportation. Bicycle facilities would be consistent with the 2010 Sonoma County Bicycle and Pedestrian Plan and the Countywide Active Transportation Plan, adopted May 2008 and updated in 2014. In addition, the proposed project would add left turn lanes at the intersections of Davis Road and Giusti Road to improve traffic flow, reduce congestion, and enhance overall intersection.

The proposed project would include the following roadway improvements:

- Roadway widening to accommodate Class II bike lanes and improve pedestrian and bicycle safety along the entire 1.38-mile stretch of Mirabel Road.
- Construction of dedicated northbound and southbound left-turn lanes at the intersections of Davis Road and Giusti Road to reduce travel time delays and improve intersection safety.
- Installation of a Class I bike path along the east side of Mirabel Road from SR 116 to Davis Road to enhance pedestrian access.
- Relocation of roadway drainage facilities and utility poles to accommodate the widened roadway.

Within the project area, one crosswalk is present at the intersection with Trenton Road and the four existing Sonoma County Transit bus stops located on both sides would remain.

Tree removal is anticipated throughout the project area. Approximately 55 trees would be removed. A tree inventory was performed by Horticultural Associates within the project area dated July 2025. Utility poles would be relocated to accommodate construction of the proposed improvements. See **Figure 2-8** to **Figure 2-15** for the Project Improvement Plan Set, which provides a graphic representation and location of the proposed improvements.

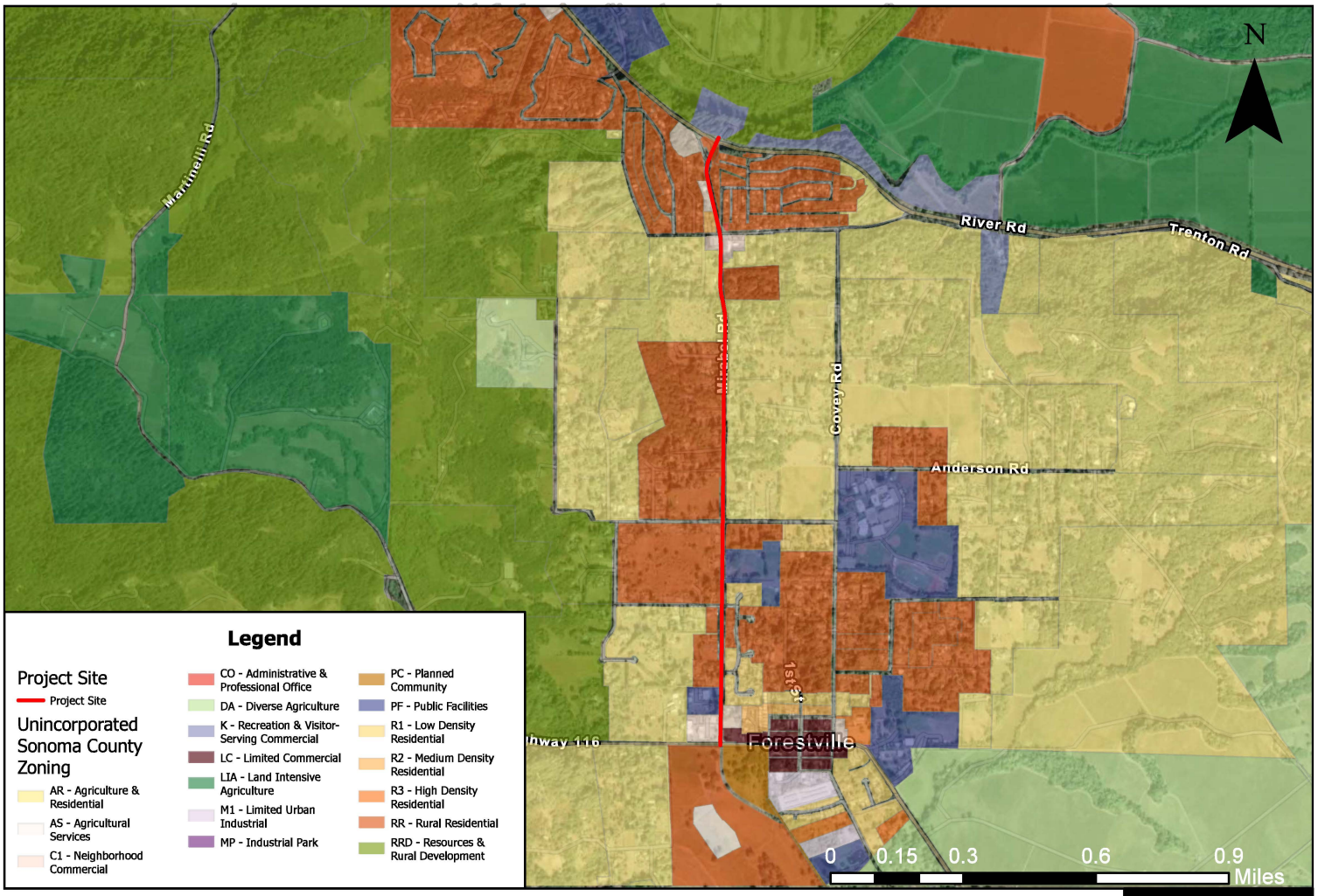
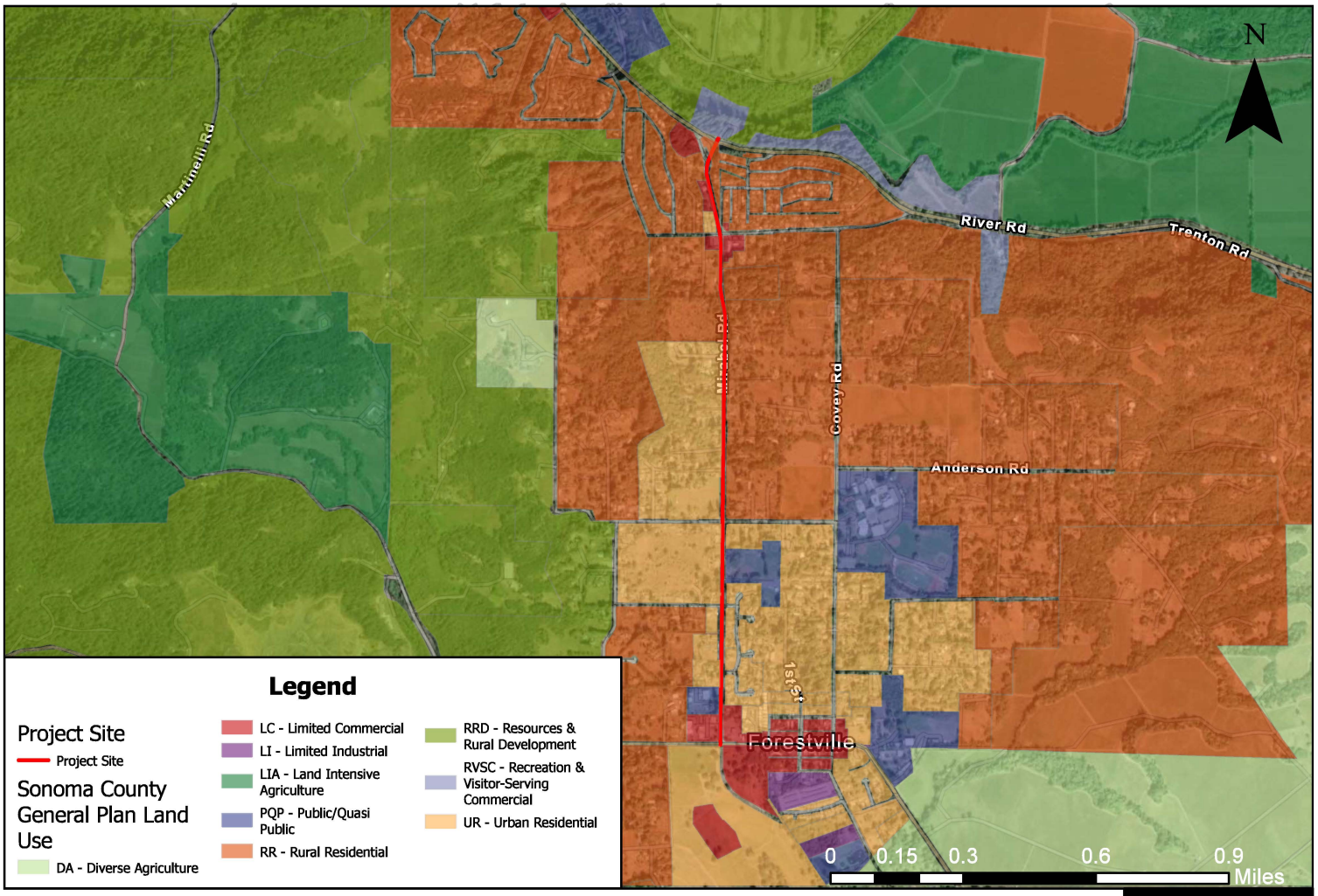


Figure 2-6

Unincorporated Sonoma County Zoning Designations

Source: Sonoma County, 2023; Mark Thomas & Co, 2024



Unincorporated Sonoma County Land Use Designations

Figure 2-7

Source: Sonoma County, 2023; Mark Thomas & Co, 2024

Stormwater

Under the proposed project, existing roadside ditches will be regraded, and new roadside ditches will be constructed. To accommodate construction of the proposed improvements, retaining walls and drainage modifications will also be required. Extension of an existing box culvert is also proposed. An existing headwall will be extended, and a new stormwater pipe will be constructed. However, the project is not anticipated to change the project area's general flow pattern.

Utilities

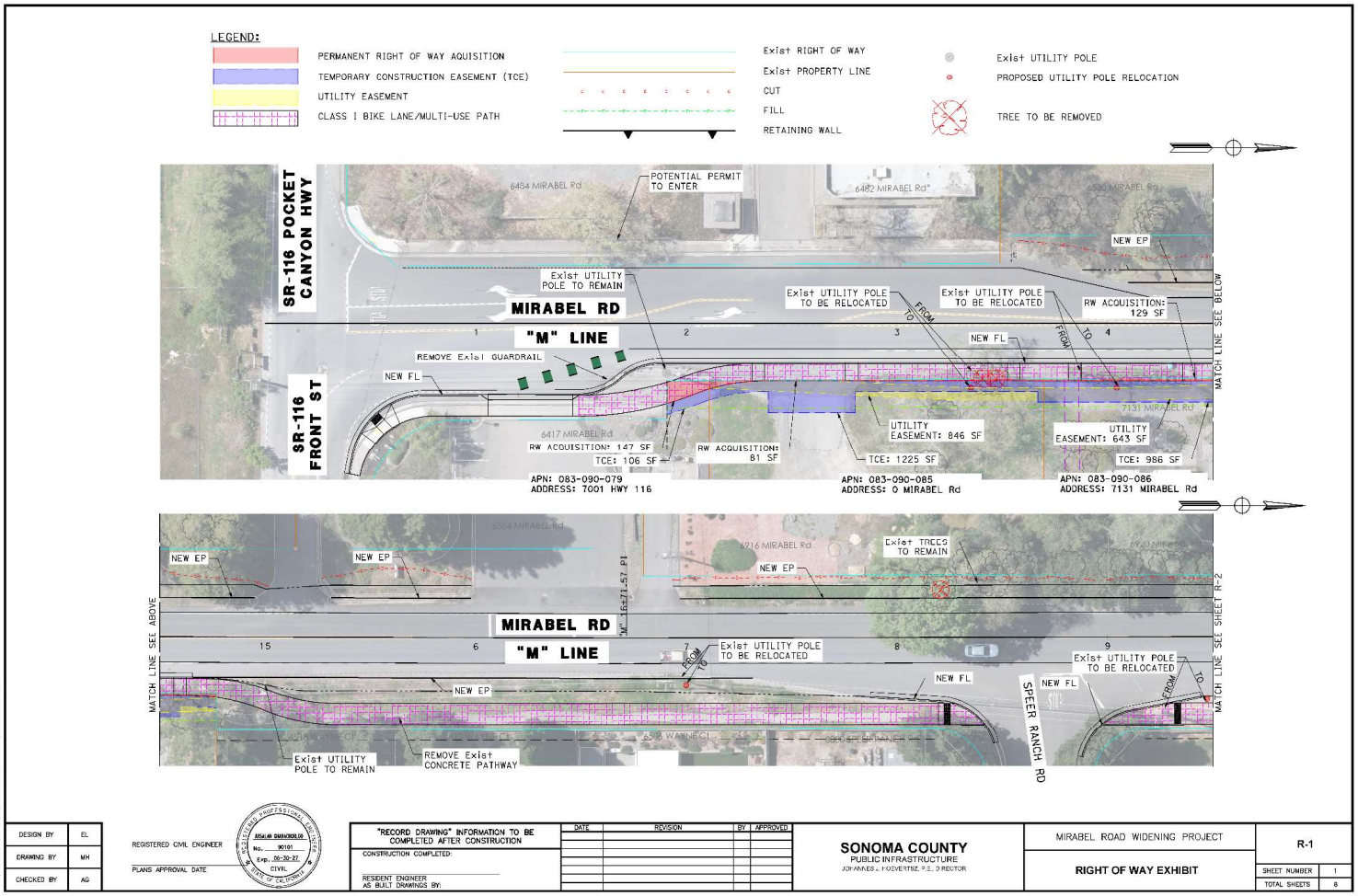
The proposed project, as needed, would tie into existing utilities for electrification of the relocated utility poles. The proposed project does not include any tie into existing water, sewer, or gas facilities because the project does not include new land uses. The proposed project would realign the above ground utility lines and poles adjacent to the widened roadway.

Project Construction

Project construction would not be phased and would occur over a period of 6 months, beginning in the third quarter of 2026. The project would involve grading of 4,300 cubic yards of soil and would not include any soil imported from off-site sources. No demolition would be required for the proposal project. Construction work would only take place on Mondays through Friday from 7:00 am to 5:00 pm.

Excavation and grading would be required for this project. Some excavation to a maximum depth of 5 feet may be required to construct the storm drainpipe and the proposed retaining walls. An excavation depth of approximately 1.25 feet is required to construct the pavement structure. Equipment that may be used to accomplish project work is listed below:

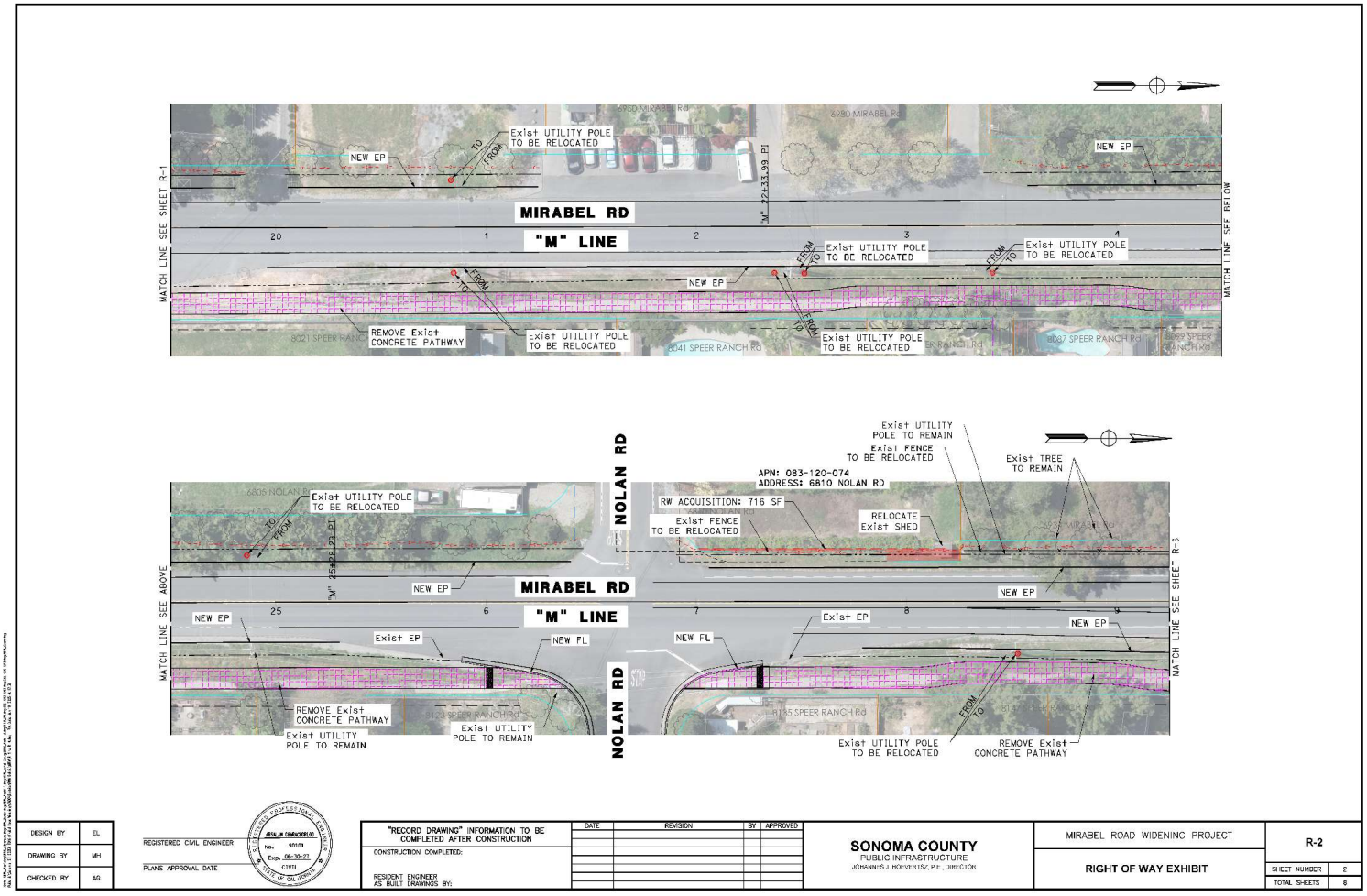
- Backhoes
- Cement and Mortar Mixers
- Compactors
- Dozers
- Off-Highway Trucks
- Pavers
- Paving Equipment
- Rollers
- Sweepers/Scrubbers
- Trenchers
- Dumpers/Tenders
- Excavators
- Generators
- Front-End Loaders



Project Improvement Plan Set (Map 1 of 8)

Figure 2-8

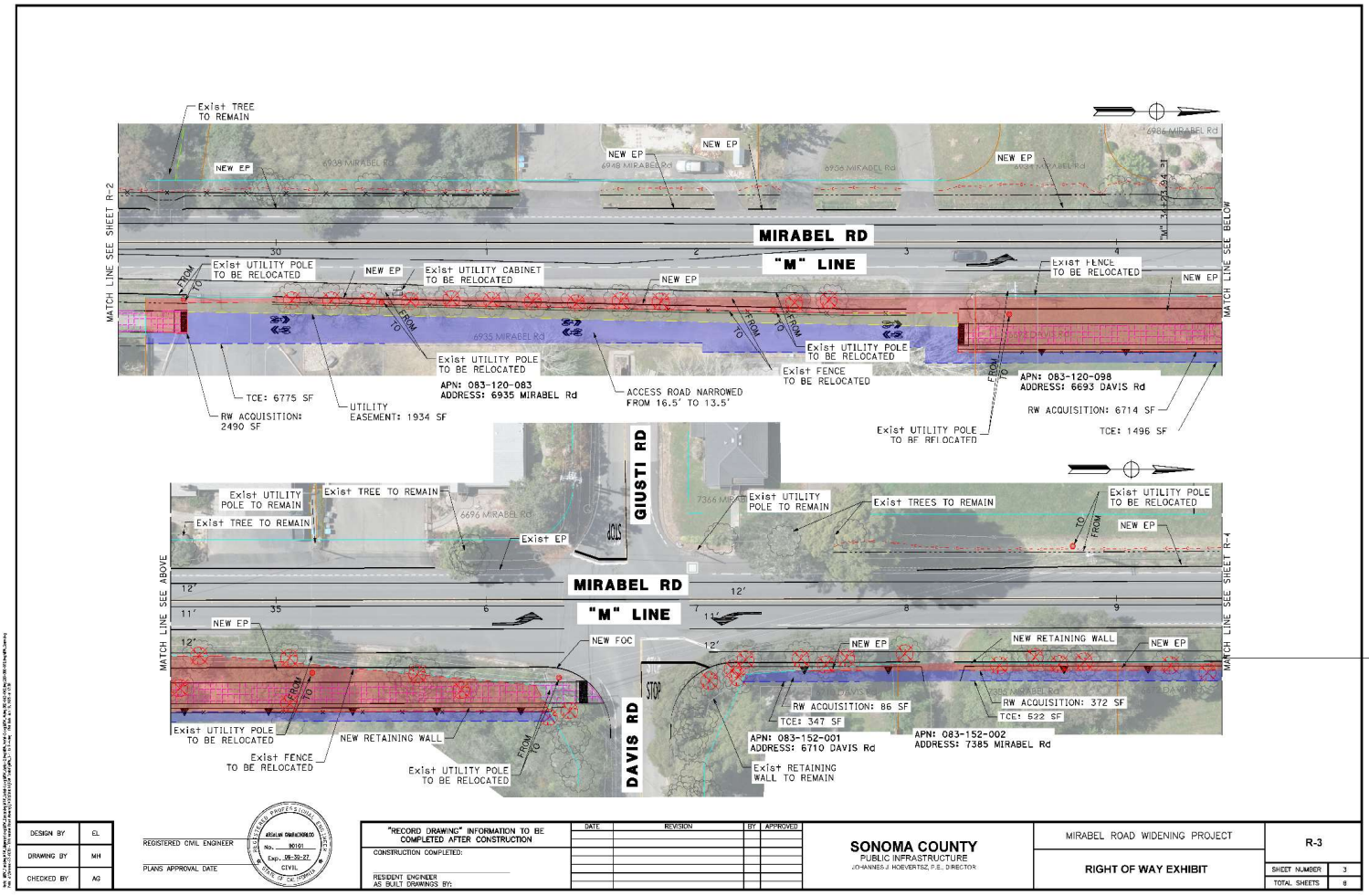
Source: Mark Thomas & Co, 2025



Project Improvement Plan Set (Map 2 of 8)

Figure 2-9

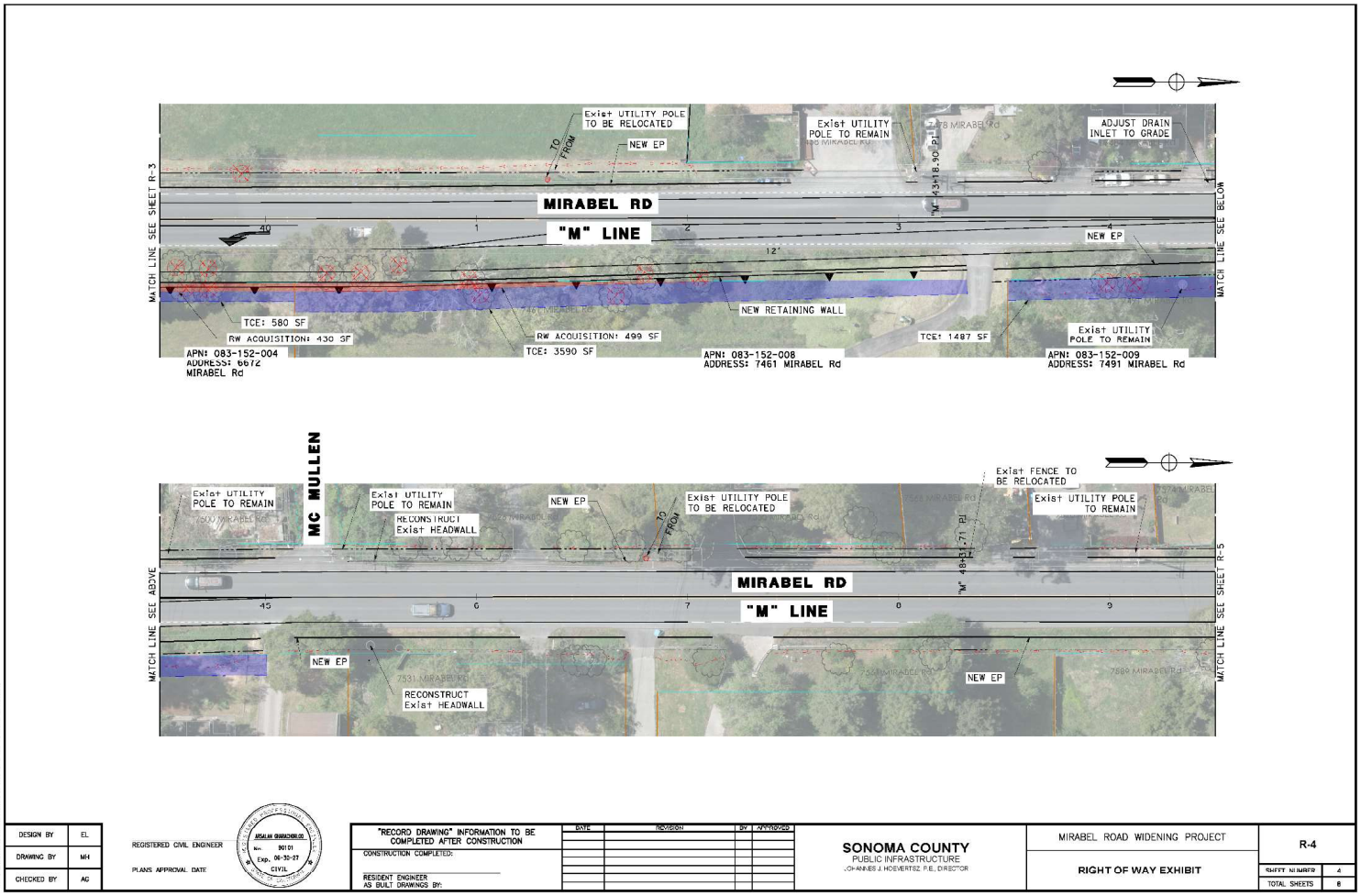
Source: Mark Thomas & Co, 2025



Project Improvement Plan Set (Map 3 of 8)

Figure 2-10

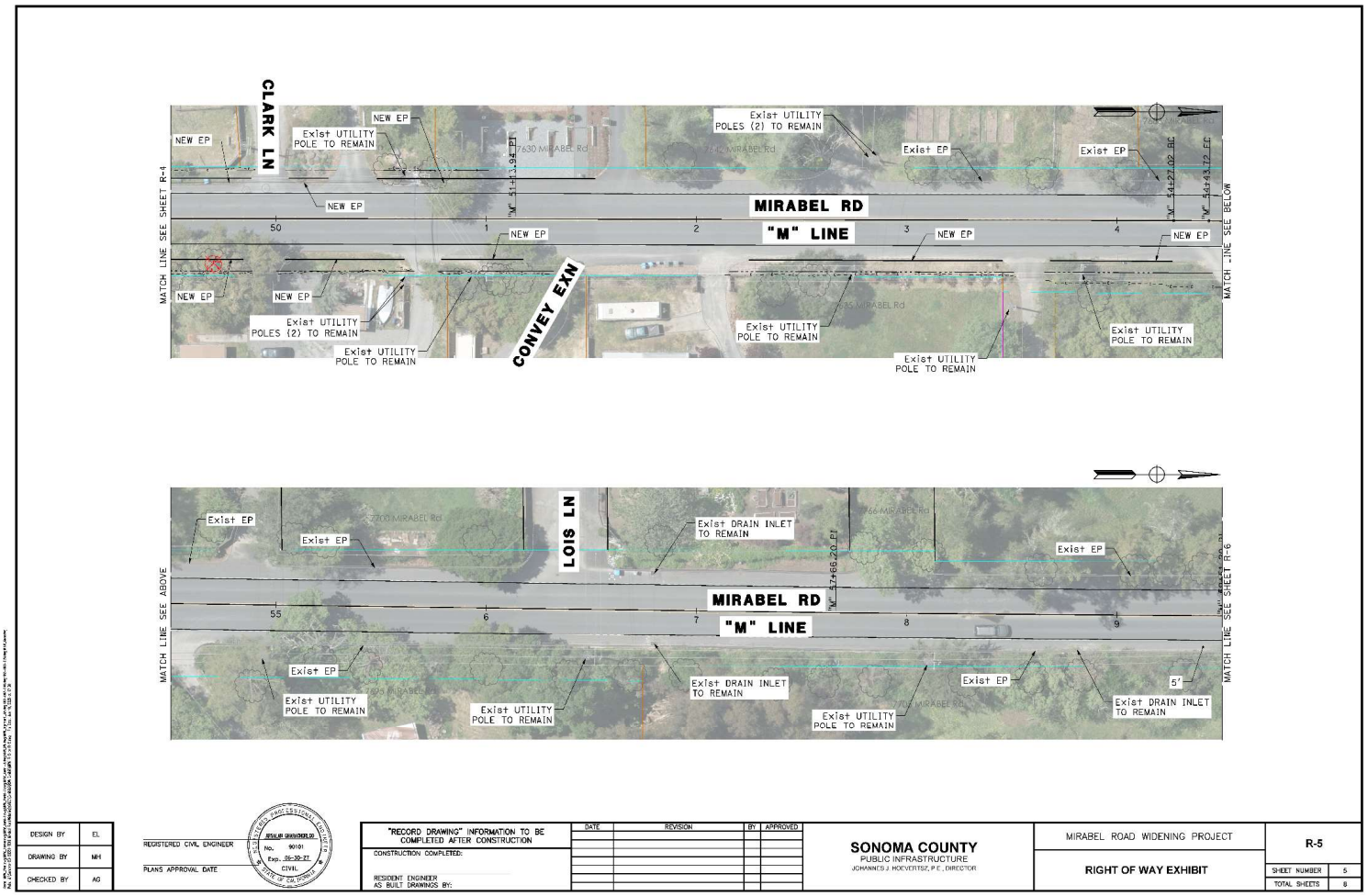
Source: Mark Thomas & Co, 2025



Project Improvement Plan Set (Map 4 of 8)

Figure 2-11

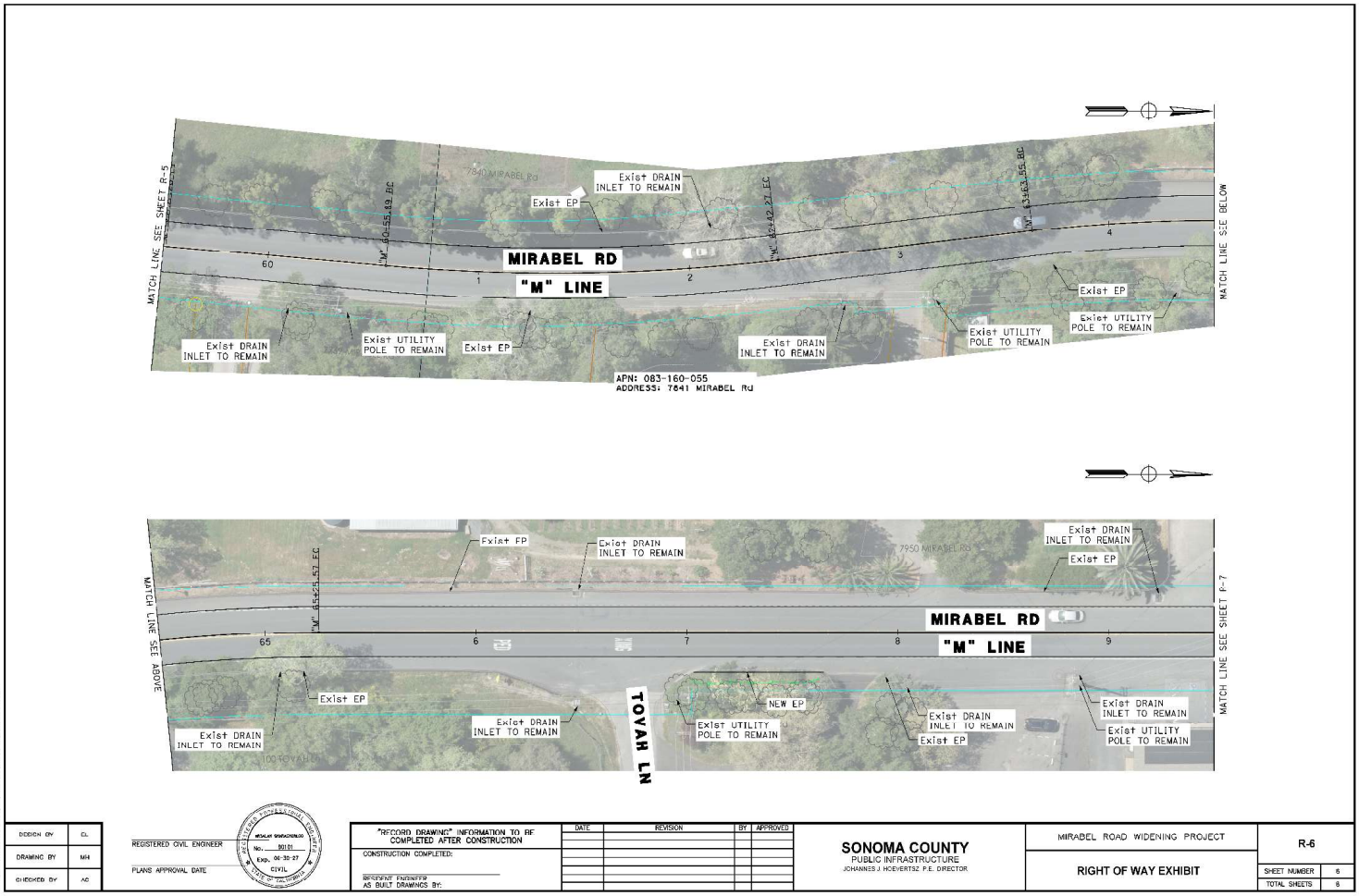
Source: Mark Thomas & Co, 2025



Project Improvement Plan Set (Map 5 of 8)

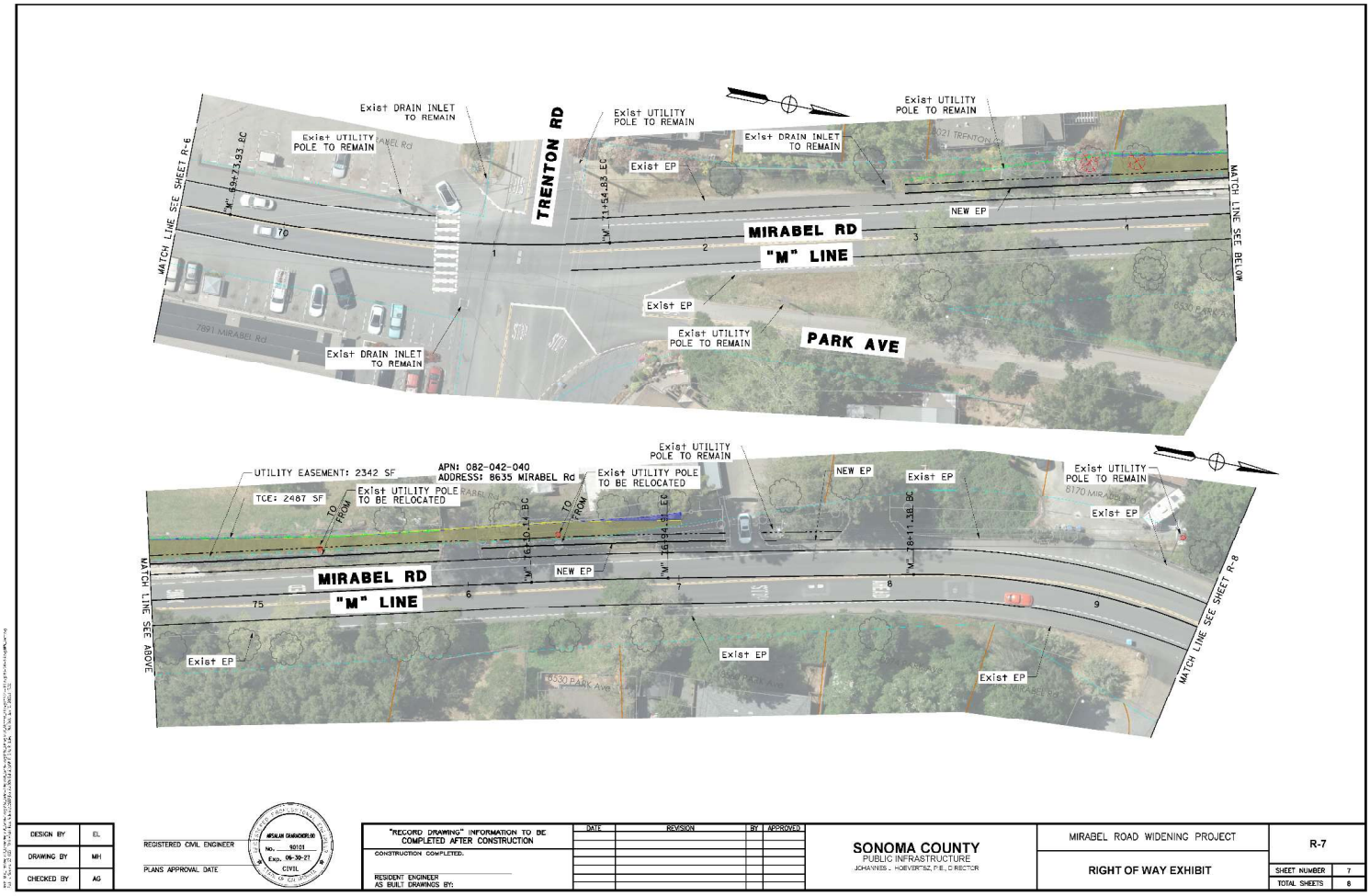
Figure 2-12

Source: Mark Thomas & Co, 2025



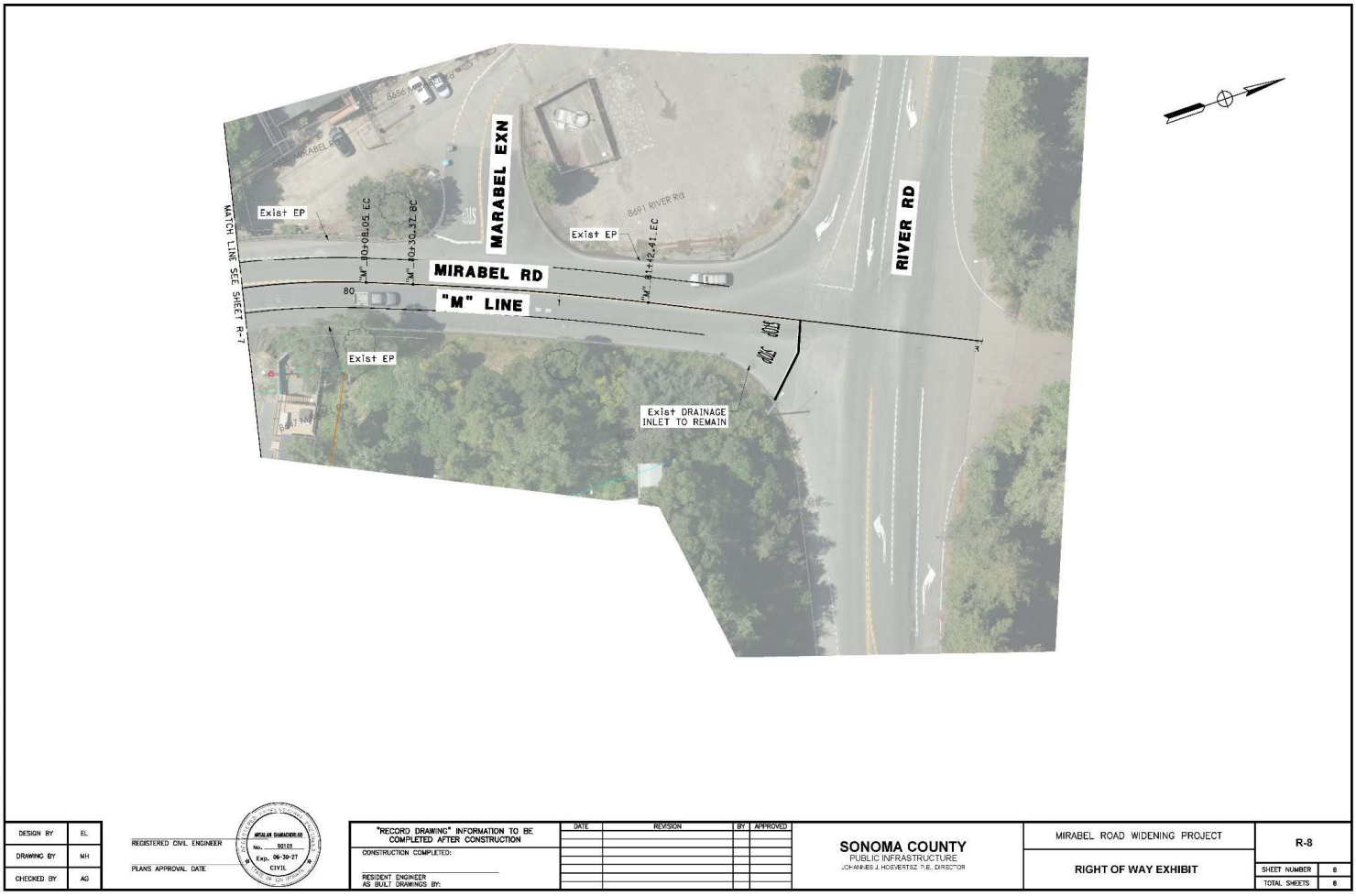
Project Improvement Plan Set (Map 6 of 8) **Figure 2-13**

Source: Mark Thomas & Co, 2025



Project Improvement Plan Set (Map 7 of 8) **Figure 2-14**

Source: Mark Thomas & Co, 2025



Project Improvement Plan Set (Map 8 of 8)

Figure 2-15

Source: Mark Thomas & Co, 2025

2.5 Project Approvals

- Improvement Plans (County of Sonoma)
- Regulatory Wetlands Permits
    - Section 1602 Lake and Streambed Alteration Agreement (California Department of Fish and Wildlife [CDFW])
    - Section 401 Certification/Waste Discharge Requirement Application (Regional Water Quality Control Board [RWQCB])
    - Section 404 Nationwide Permit Application (US Army Corp of Engineers)

3.0 INITIAL STUDY CHECKLIST

1. Project title:

Mirabel Road Corridor Improvements and West County Trail Project

2. Lead agency name and address:

Sonoma County Public Infrastructure Department

3. Contact person and phone number:

Olguin Caban, Assistant Engineer
400 Aviation Boulevard, Suite 100
Santa Rosa, CA 95403
(707) 565-2857

4. Project location:

Mirabel Road

5. Project sponsor's name and address:

Sonoma County

6. Zoning:

The project area is located within the Sonoma County ROW. The zoning designations for the parcels surrounding the project area include: Neighborhood Commercial District (C1), Local Guidelines Combining District (LG), Scenic Resources Combining District (SR), Public Facilities District (PF), Rural Residential District (RR), Constraint Combining District (B), Agriculture and Residential District (AR), Low Density Residential District (R1), Floodplain Combining District (F2), Administrative and Professional Office District (CO), Oak Woodland Combining District (OAK), and Riparian Corridor Combining Zone (RC).

7. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

The proposed project would widen Mirabel Road from SR 116 to River Road in Forestville to accommodate Class I bike path, Class II bike lanes and northbound and southbound left turn lanes at intersection of Davis Road and Giusti Road as part of the Mirabel Road Corridor Improvements and West County Trail project. The purpose of this project is to improve the mobility and safety of the existing roadway for all modes of transportation by constructing left turn lanes at Davis Road and Giusti Road intersection and widening the narrow segments of the Mirabel Road to meet the standards of a Class II bike lane. The project would also construct a Class I bike path along the east side of Mirabel Road from SR 116 to Davis Road. See Section 2.4, Proposed Project, above for further breakdown of the proposed improvements.

8. Surrounding land uses and setting: Briefly describe the project's surroundings:

The land uses surround the project area include residential development, small-scale retail, and community facilities.

9. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

United States Army Corps of Engineers (404 Clean Water Act Permit)
California Department of Fish and Wildlife (Section 1600 Lake and Streambed Alteration Agreement)
Regional Water Quality Board (Section 401 Water Quality Certification)

10. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

On August 11, 2025, the following tribes were contacted via letter from the County regarding the proposed project: Big Valley Band of Pomo Indians of the Big Valley Rancheria, Cahto Tribe, Cloverdale Rancheria of Pomo Indians, Coyote Valley Band of Pomo Indians, Dry Creek Rancheria of Pomo Indians, Elem Indian Colony Pomo Tribe, Estom Yumeka Maidu Tribe of the Enterprise Rancheria, Federated Indians of Graton Rancheria, Guidiville Rancheria of California, Hopland Band of Pomo Indians, Kashia Band of Pomo Indians of the Stewarts Point Rancheria, Koi Nation of Northern California, Lytton Rancheria, Manchester Band of Pomo Indians of the Manchester Rancheria, Middletown Rancheria of Pomo Indians of California, Noyo River Indian Community, Pinoleville Pomo Nation, Potter Valley Tribe, Redwood Valley or Little River Band of Pomo Indians, Robinson Rancheria of Pomo Indians, Round Valley Reservation/ Covelo Indian Community, Scotts Valley Band of Pomo, Sherwood Valley Rancheria of Pomo, and Yokayo Tribe. At the time of preparation of this document no tribes requested formal consultation. Although there has not been a response from any tribes to date, there is potential for tribes to respond during the public review period for the IS/MND. Therefore, the AB 52 process is ongoing.

NOTE: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify, and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3I contains provisions specific to confidentiality.

4.0 ENVIRONMENTAL ANALYSIS

Environmental Factors Potentially Affected by the Proposed Project

The environmental factors checked below would be potentially affected by this project, involving impacts identified "Less Than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages. No environmental factors were identified as "Potentially Significant Impact."

	Aesthetics		Agriculture/Forestry Resources		Air Quality
X	Biological Resources	**X**	Cultural Resources		Energy
X	Geology/Soils		Greenhouse Gas Emissions	**X**	Hazards & Hazardous Materials
	Hydrology/Water Quality		Land Use/Planning		Mineral Resources
X	Noise		Population/Housing		Public Services
	Recreation	**X**	Transportation	**X**	Tribal Cultural Resources
	Utilities/Service Systems	**X**	Wildfire	**X**	Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

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

_____ _____

Signature *Date*

4.1 Aesthetics

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	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?				**X**
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?			**X**	
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 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?			**X**	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				**X**

Regulatory Setting

State

State Scenic Highway Program

California Department of Transportation ("Caltrans") defines a scenic highway as any freeway, highway, road, or other public ROW, which traverses an area of exceptional scenic quality. Suitability for designation as a state scenic highway is based on vividness, intactness, and unity:[1]

1. Vividness is the extent to which the landscape is memorable. This is associated with the distinctiveness, diversity, and contrast of visual elements. A vivid landscape makes an immediate and lasting impression on the viewer.

[1] California Department of Transportation (Caltrans). 2008. *Landscape Architecture Program, Scenic Highway Guidelines*. October 2008.

2. Intactness is the integrity of visual order in the landscape and the extent to which the natural landscape is free from visual intrusions (e.g., buildings, structures, equipment, grading).
3. Unity is the extent to which development is sensitive to and visually harmonious with the natural landscape.

Two State-designated scenic highways are in Sonoma County, as described above, and the proposed project is located within the State Highway 116 Scenic Corridor.

Streets and Highway Code Sections 260 through 263

The California Scenic Highway Program (Streets and Highway Code, Sections 260 through 263) is managed by the Caltrans. The program is intended to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment.

The California Scenic Highway Program is managed by the Caltrans. The purpose of this program is to protect and enhance the natural scenic beauty of the California highway system and adjacent corridors through special conservations measures. State highways may be identified as eligible depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. When evaluating development proposals along eligible highways, local authorities may consider potential effects on travelers' enjoyment of local views.

Regional

Sonoma County General Plan

The Scenic Resources section of the Open Space & Resource Conservation Element of the Sonoma County General Plan (County General Plan) provides the following goals and policies concerning aesthetics, visual resources, and community design; they apply to the Potential Sites throughout the county, where appropriate.

Goal OSRC-1: Preserve the visual identities of communities by maintaining open space areas between cities and communities.

> **Objective OSRC-1.1:** Preserve important open space areas in the Community Separators shown on Figures OSRC-5a through OSRC-5i of the Open Space and Resource Conservation Element.
>
> **Objective OSRC-1.2:** Retain a rural character and promote low intensities of development in Community Separators. Avoid their inclusion in City Urban Growth Boundaries or Spheres of Influence. Avoid their inclusion within Urbans Service Areas for unincorporated communities.
>
> **Objective OSRC-1.3:** Preserve existing groundwater recharge and stormwater detention areas within Community Separators.
>
> **Objective OSRC-1.4:** Preserve existing specimen trees and tree stands within Community Separators.

Goal OSRC-2: Retain the largely open, scenic character of important scenic landscape units.

> **Objective OSRC-2.1:** Retain a rural, scenic character in Scenic Landscape Units with very low intensities of development. Avoid their inclusion within spheres of influence for public service providers.

Objective OSRC-2.2: Protect the ridges and crests of prominent hills in Scenic Landscape Units from the silhouetting of structures against the skyline.

Objective OSRC-2.3: Protect hills and ridges in Scenic Landscape Units from cuts and fills.

Policy OSRC-2a: Avoid amendments to increase residential density in Scenic Landscape Units in excess of one unit per ten acres. The land use plan may designate a lower density or larger minimum lot size.

Policy OSRC-2b: Avoid commercial or industrial uses in Scenic Landscape Units other than those that are permitted by the agricultural or resource land use categories.

Policy OSRC-2d: Unless there are existing design guidelines that have been adopted for the affected area, require that new structures in Scenic Landscape Units meet the following criteria:

1. Site and design structures to take maximum advantage of existing topography and vegetation to substantially screen them from view from public roads.
2. Minimize cuts and fills on hills and ridges.
3. Minimize the removal of trees and other mature vegetation. Avoid removal of specimen trees, tree groupings, and windbreaks.
4. Where existing topography and vegetation would not screen structures from view from public roads, install landscaping consisting of native vegetation in natural groupings that fit with the character of the area to substantially screen structures from view. Screening with native, fire retardant plants may be required.
5. Design structures to use building materials and color schemes that blend with the natural landscape and vegetation.
6. On hills and ridges, avoid structures that project above the silhouette of the hill or ridge against the sky as viewed from public roads and substantially screen driveways from view where practical.
7. To the extent feasible, cluster structures on each parcel within existing built areas and near existing natural features such as tree groupings.

Policy OSRC-2e: Use the following standards in addition to those of Policy OSRC-2d for subdivisions in Scenic Landscape Units:

1. Establish building envelopes for structures and consider use of height limitations if necessary to further mitigate visual impacts.
2. Use clustering to reduce visual impact where consistent with the Land Use Element.
3. Locate building sites and roadways to preserve significant existing tree stands and significant oak trees.

Policy OSRC-2f: Identify critical scenic areas within designated Scenic Landscape Units. To the extent allowed by law, consider requiring dedication of a permanent scenic or agricultural easement at the time of subdivision for properties within these critical scenic areas.

Policy OSRC-2g: Consider voluntary transfer of development rights and purchase of development rights programs and make Scenic Landscape Units eligible with owner consent.

Policy OSRC-2h: For development on parcels located both within Scenic Landscape Units and adjacent to Scenic Corridors, apply the more restrictive siting and setback policies to preserve visual quality.

Goal OSRC-3: Identify and preserve roadside landscapes that have a high visual quality as they contribute to the living environment of local residents and to the County's tourism economy.

Objective OSRC-3.1: Designate the Scenic Corridors on Figures OSRC-5a through OSRC-5i along roadways that cross highly scenic areas, provide visual links to major recreation areas, give access to historic areas, or serve as scenic entranceways to cities.

Objective OSRC-3.2: Provide guidelines so future land uses, development and roadway construction are compatible with the preservation of scenic values along designated Scenic Corridors.

Policy OSRC-3a: Apply the Scenic Resources combining district to those portions of properties within Scenic Corridor setbacks.

Policy OSRC-3b: For development on parcels located both within Scenic Landscape Units and adjacent to Scenic Corridors, apply the more restrictive siting and setback policies to preserve visual quality.

Policy OSRC-3c: Establish a rural Scenic Corridor setback of 30 percent of the depth of the lot to a maximum of 200 feet from the centerline of the road unless a different setback is provided in the Land Use Policies for the Planning Areas. Prohibit development within the setback with the following exceptions:

1. New barns and similar agricultural support structures added to existing farm complexes on parcels in the Diverse Agriculture, Land Extensive Agriculture, Land Intensive Agriculture, and Resources and Rural Development land use categories, and on parcels in the Rural Residential land use category with Agriculture and Residential (AR) Zoning, provided that such structures proposed within a State Scenic Highway or where local design review exists by community choice in an adopted specific or area plan are subject to administrative design review.
2. New barns and similar agricultural support structures that do not require a use permit in the Development Code on parcels in the Diverse Agriculture, Land Extensive Agriculture, Land Intensive Agriculture, and Resources and Rural Development land use categories, and on parcels in the Rural Residential land use category with Agriculture and Residential (AR) Zoning, provided that such structures proposed within a State Scenic Highway or where local design review exists by community choice in an adopted specific or area plan are subject to administrative design review.
3. Maintenance, restoration, reconstruction, or minor expansion of existing structures.
4. Telecommunication facilities that meet the applicable criteria established in the Development Code.
5. Other new structures if they are subject to design review and (a) they are associated with existing structures, (b) there is no other reasonable location for the structure, (c)

the location within the setback is necessary for the use, or (d) existing vegetation and topography screen the use.

6. Compliance with the setback would render the parcel unbuildable.
7. Satellite dishes that are not visible from the roadway.

Policy OSRC-3e: In conjunction with Section 2.5 "Policy for Urban Design", incorporate design criteria for Scenic Corridors in urban areas.

Policy OSRC-3g: Avoid freeway-oriented billboards along designated Scenic Corridors. Establish design criteria for consideration of new freestanding outdoor advertising structures or signs along designated Scenic Corridors to retain visual quality. Consider amortization of existing signs subject to the limitations of State law as a condition of approval for discretionary permits.

Goal OSRC-4: Preserve and maintain views of the nighttime skies and visual character of urban, rural and natural areas, while allowing for nighttime lighting levels appropriate to the use and location.

Objective OSRC-4.1: Maintain nighttime lighting levels at the minimum necessary to provide for security and safety of the use and users to preserve nighttime skies and the nighttime character of urban, rural and natural areas.

Objective OSRC-4.2: Ensure that nighttime lighting levels for new development are designed to minimize light spillage off-site or upward into the sky.

Policy OSRC-4a: Require that all new development projects, County projects, and signage utilize light fixtures that shield the light source so that light is cast downward and that are no more than the minimum height and power necessary to adequately light the proposed use.

Policy OSRC-4b: Prohibit continuous all-night exterior lighting in rural areas, unless it is demonstrated to the decision-making body that such lighting is necessary for security or operational purposes or that it is necessary for agricultural production or processing on a seasonal basis. Where lighting is necessary for the above purposes, minimize glare onto adjacent properties and into the night sky.

Policy OSRC-4c: Discourage light levels that are in excess of industry and State standards.

Goal OSRC-5: Retain and enhance the unique character of each of the County's unincorporated communities, while accommodating projected growth and housing needs.

Objective OSRC-5.1: Develop Urban Design Guidelines on a community by community basis to achieve the following: compatibility with and connections to surrounding development; community interaction and pedestrian activity; attractive public views; safe and comfortable infrastructure and streetscape improvements for bikes and pedestrians; increased public safety.

Objective OSRC-5.2: Establish community character as a primary criterion for review of projects in Urban Service Areas.

Policy OSRC-5a: Develop Urban Design Guidelines appropriate for each Urban Service Area in unincorporated Sonoma County that reflect the character of the community.

Policy OSRC-5b: Use the following general urban design principles until Urban Design Guidelines specific to each Urban Service Area are adopted.

1. Promotion of pedestrian and/or bicycle use
2. Compatibility with adjacent development
3. Incorporation of important historical and natural resources
4. Complementary parking out of view of the streetscape
5. Opportunities for social interaction with other community members
6. Promotion of visible access to buildings and use areas
7. Appropriate lighting levels

Goal OSRC-6: Preserve the unique rural and natural character of Sonoma County for residents, businesses, visitors, and future generations.

Objective OSRC-6.1: Develop Rural Character Design Guidelines to achieve the following: preservation of existing site features contributing to rural character; siting of buildings and development features to blend in with the surrounding landscape; and allowance for rural design features in rural areas.

Objective OSRC-6.2: Establish Rural Character as a primary criterion for review of discretionary projects, but not including administrative design review for single family homes on existing lots outside of Urban Service Areas.

Policy OSRC-6a: Develop design guidelines for discretionary projects in rural areas, but not including administrative design review for single family homes on existing lots, that protect and reflect the rural character of Sonoma County. Use the following general design principles until these Design Guidelines are adopted, while assuring that Design Guidelines for agricultural support uses on agricultural lands are consistent with Policy AR-9h of the Agricultural Resources Element.

1. New structures blend into the surrounding landscape, rather than stand out.
2. Landscaping is included and is designed to blend in with the character of the area.
3. Paved areas are minimized and allow for informal parking areas.
4. Adequate space is provided for natural site amenities.
5. Exterior lighting and signage are minimized.

Sonoma County Code

Section 26-64-010 et seq. provides general direction on development in the Scenic Resources Combining District including scenic corridors, community separators, and scenic landscape units. It specifies general limitations on scale, massing, density, and design, subject to design review.

The VOH-zoned areas are subject to ordinances that govern tree removal as follows:

> Except as provided in subsection (b), when any person cuts down or removes any large valley oak, or any small valley oaks having a cumulative diameter at breast height greater than 60 inches, on any property within the VOH district, such person shall mitigate the resulting valley oak loss by one of the following measures: (1) retaining other valley oaks on the subject property, (2) planting replacement valley oaks on the subject property or on another site in the

county having the geographic, soil, and other conditions necessary to sustain a viable population of valley oaks, (3) a combination of measures (1) and (2), or (4) paying an in-lieu fee, which shall be used exclusively for valley oak planting programs in the county. (Article 67, Section 26-67-030)

Finally, some landscape units and scenic corridors are subject to lighting and signage regulations that include limits on intensity, size, and design. These are subject to review and approval based on compliance with the County Code. Throughout the County Code, night sky ordinances govern the degree to which development can be lighted at night, and include stipulations about shielding, orientation, and luminosity.

Community Separators Protection Ordinance

Community Separators are open space or agricultural lands that separate cities and other communities, contain urban development, and provide city and community identity by offering visual relief from continuous urbanization. On November 8, 2016, the Community Separators Protection Ordinance, commonly called Measure K, passed with 81.1 percent approval. Measure K extends voter protections to Community Separator lands for 20 years.

Sonoma 116 Scenic Highway Corridor Study

In 1983, the State legislature passed Assembly Bill (AB) 1026, that added State Route 116 from Highway 101 near Cotati to State Route 1 near Jenner in Sonoma County to the Master Plan of the State Highways Eligible for Scenic Highway Designation. The County had already designated State Route 116 as a scenic corridor, and following the passage of AB 1026, the Sonoma County Board of Supervisors passed a resolution to request that Caltrans conduct studies leading to designation of the route as an Official State Scenic Highway. The ensuing report Caltrans published offers visual quality assessments for scenic corridor segments that include areas where State Route 116 passes close to the Potential Sites.

Existing Setting

Visual Character and Quality

The visual environment along Mirabel Road reflects the rural character of Sonoma County. The surrounding land uses primarily consist of rural residential properties with homes set back from the road amidst wooded parcels, vineyards, and open spaces. These features contribute to the semi-rural aesthetic of the region. The area's topography is gently rolling, and the corridor is defined by abundant mature oak and mixed evergreen trees, interspersed with native shrubs and grasses. The natural vegetation provides an immersive tree canopy in certain sections of the road while also offering visual screening.[2]

Scenic features in the project area include views of rolling hills, vineyards, and forested landscapes that become visible in areas where the vegetation opens up, creating expansive sightlines. These views are highly valued by residents and visitors for their natural and tranquil appeal. Mirabel Road itself is a two-lane asphalt roadway with minimal to non-existent shoulders in some locations. Infrastructure along the corridor is limited, with sparse signage and minimal street lighting, which helps preserve the area's rural

[2] Sonoma County Vegetation Mapping and LiDAR Program. 2017. Vegetation and Landscape Data. Available at: https://sonomacounty.ca.gov/Vegetation-Mapping/. Accessed on: December 17, 2024.

nighttime aesthetic. Utility poles are present along portions of the roadway but are generally unobtrusive due to the surrounding vegetation and the rural character of the setting.[3]

Scenic Designations

The Caltrans Scenic Highway Program has designated SR 116 as a scenic highway, which runs through the Forestville area. This designation highlights the region's natural beauty and reinforces the importance of maintaining the visual character of the surrounding landscapes. While Mirabel Road itself is not officially designated as a scenic route, it contributes to the overall rural and scenic aesthetic of the Forestville area, with views of rolling hills, vineyards, and forested landscapes that are valued by residents, visitors, and recreational users.[4]

Light and Glare

The existing conditions related to light and glare are minimal along Mirabel Road. There is an absence of significant street lighting, which preserves the area's dark skies and natural nighttime aesthetic. Artificial light sources primarily come from residential properties or vehicle headlights. This lack of urban lighting contributes to the rural atmosphere and supports the overall visual integrity of the corridor.[5]

Viewer Groups and Sensitivity

The primary groups that experience and are sensitive to the visual environment along Mirabel Road include residents, recreational users, and tourists. Residents living along the road value its scenic character and natural setting as integral to their quality of life. Recreational users, such as cyclists, pedestrians, and motorists, frequently use the road and appreciate its aesthetic appeal during their commutes or leisure activities. Tourists traveling to the Russian River and other nearby attractions also experience Mirabel Road as part of the regional scenic landscape, which enhances their overall recreational experience. Viewer sensitivity in this area is considered high due to the importance of the corridor's visual quality to the local community, recreational users, and visitors alike.[6]

Impact Discussion

a) Have a substantial adverse effect on a scenic vista?

No Impact. The project area along Mirabel Road is located in a rural setting within Sonoma County, which is characterized by natural features such as mature trees, rolling hills, and open spaces. While the Caltrans Scenic Highway Program designates SR 116, which runs through the nearby Forestville area, as a scenic highway, Mirabel Road itself is not specifically identified as part of a designated scenic vista in the County General Plan or other planning documents.

[3] Sonoma County Permit and Resource Management Department. 2020. Administrative Design Review – Residential (PJR-056). Available at: https://permitsonoma.org/instructionsandforms/pjr-056administrativedesignreviewresidential. Accessed on: December 17, 2024.
[4] California Department of Transportation (Caltrans). 2023. *California State Scenic Highway System Map*. Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed on: October 14, 2024.
[5] Sonoma County Permit and Resource Management Department. 2019. Visual Assessment Guidelines. Available at: https://www.sonomacountypermits.org/regulationsandlongrangeplans/longrangeplans/proposedlong-rangeplans/environmentalreviewguidelines/visualassessmentguidelines. Accessed on: December 17, 2024.
[6] Sonoma County Permit and Resource Management Department. 2020. General Plan: Open Space and Resource Conservation Element. Available at: https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Long%20Range%20Plans/General-Plan-Open-Space-and-Resource-Conservation-Element.pdf. Accessed on: December 17, 2024.

Views within the project area are primarily limited to adjacent rural residential properties, vineyards, and wooded parcels, with no long-range scenic vistas directly impacted by the proposed improvements. The proposed project's scope, which focuses on bike lane construction, is minimal and would not obstruct or degrade views of the natural surroundings. As such, the proposed project would not result in any impacts to a scenic vista.

b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact. According to Caltrans' state scenic highway maps, SR 116, located near the southern end of the project area, is an officially designated scenic highway.[7] However, Mirabel Road itself is not part of a designated state scenic highway.

The project area primarily consists of rural residential properties, wooded areas, and open spaces. While mature oak and evergreen trees line portions of the road, the proposed bike lane improvements have been designed to minimize any disturbance to existing natural features, such as trees or rock outcroppings. The proposed project would result in the removal of approximately 55 trees. Additionally, there are no historic buildings or notable scenic resources located directly within the project area.

While the removal of trees would result in localized changes to the visual character, these changes are necessary to facilitate the construction of Class I bike path and Class II bike lanes and have been designed to minimize long-term visual disruptions. Given the limited scope of the proposed project and the absence of scenic resources within a designated state scenic highway along Mirabel Road, the proposed project's implementation would not obstruct or degrade views associated with SR 116. Therefore, the implementation of the proposed project would result in a less-than-significant impact in this regard.

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 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?

Less Than Significant Impact. The project area along Mirabel Road is located in a non-urbanized, rural setting within Forestville, Sonoma County. The visual character of the area is defined by rural residential properties, vineyards, wooded areas with mature oak and evergreen trees, and open spaces. Infrastructure along Mirabel Road is minimal, including narrow shoulders, sparse signage, and no significant lighting, which contributes to the area's natural and semi-rural aesthetic.

The majority of the proposed improvements, including the construction of a bike lane, will occur within the County right-of-way. In areas where studies or work outside the County right-of-way are required, permission to enter private property will need to be acquired from the respective property owners. The improvements will require the removal of approximately 55 trees along the proposed project corridor to accommodate the roadway widening and bike lane construction. Additionally, roadway drainage facilities and utility poles will be relocated as part of the proposed

[7] California Department of Transportation. California Scenic Highway Mapping System. Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa . Accessed on: September 16,2024.

project to ensure compatibility with the widening. To further support the construction, retaining walls and drainage modifications are also proposed, including the extension of an existing box culvert to maintain proper stormwater flow and roadway stability.

While the tree removal and infrastructure modifications would result in localized changes to the visual character, these improvements are necessary for the Class I bike path and Class II bike lanes' construction and are designed to minimize long-term visual disruption. The proposed project's design avoids unnecessary disturbance to significant natural features outside the proposed project footprint and will integrate appropriately with the existing rural environment.

Public views along Mirabel Road, including those experienced by motorists, cyclists, and pedestrians, may experience temporary changes during construction. However, upon project completion, the improvements will enhance accessibility for recreational users without substantially degrading the corridor's visual quality. The defining features of the area (tree-lined roadways, rolling hills, vineyards, and open spaces) will remain largely intact.

The proposed project aligns with the County General Plan policies that support the preservation of scenic resources and rural road aesthetics. Therefore, implementation of the proposed project would have a less than significant impact in this regard.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. Based on the type and extent of work to be performed, nighttime construction is not proposed for the proposed project and would only be performed under the approval of the County's Resident Engineer. Any such work would be conditionally required to avoid glare that would be a hazard to vehicles and to avoid light trespass onto adjacent residential uses through means and methods to light a work area while limiting light spill onto adjoining property. Following construction, the proposed project is adding a Class I bike path and Class II bike lanes and does not include the installation of streetlights or other new lighting. No new permanent lighting would result that would create a new source of light or glare. There would be no impact.

Cumulative Impacts

The potential aesthetic impacts related to views, visual character, and light and glare are generally site-specific. As discussed above, the proposed project's changes to the visual environment would be minimal. The proposed project involves the removal of approximately 55 trees, relocation of roadway drainage facilities and utility poles, and construction of retaining walls and drainage modifications, including the extension of an existing box culvert. However, these improvements are localized within the County right-of-way and are designed to blend with the existing rural environment of Mirabel Road.

The overall visual character of the area, defined by rural residential properties, vineyards, wooded landscapes, and open spaces, will remain intact. While tree removal will result in localized changes, the proposed project would not substantially degrade the existing visual character or disrupt the rural balance of the surrounding area.

With respect to light and glare, the proposed project does not introduce significant new light sources. Any lighting, if required, such as signalization or streetlights, will be consistent with the rural setting and designed to be shielded and directed to minimize light spill and glare. Similar to the proposed project,

other past, present, and reasonably foreseeable projects in the vicinity are required to comply with local planning and design guidelines, including the County General Plan and Visual Assessment Guidelines. These guidelines ensure appropriate roadway design, materials, and landscaping to minimize impacts to aesthetic resources. The proposed project aligns with applicable local planning and design standards, ensuring that cumulative impacts to aesthetic resources would be less than significant.

4.2 Agriculture/Forestry Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				**X**
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				**X**
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))?				**X**
d) Result in the loss of forest land or conversion of forest land to non-forest use?				**X**
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?				**X**

Regulatory Setting

State

Farmland Mapping and Monitoring Program

The California Department of Conservation's (DOC) Farmland Mapping and Monitoring Program (FMMP) assesses the location, quality, and quantity of agricultural land and conversion of these lands over time. Agricultural land is rated according to soil quality and irrigation status. In CEQA analyses, the FMMP

classifications and published county maps are used, in part, to identify whether agricultural resources that could be affected are present on-site or in the project area. Four classifications of farmland are considered valuable: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance. Any conversion of land within these classifications is typically considered an environmental impact under CEQA. Other categories of land that are not protected by the Department of Conservation include Grazing Land, Urban and Built-up Land, and Other Land.

California Land Conservation Act

The California Land Conservation Act (Williamson Act) enables local governments to enter into contracts with private landowners to restrict parcels of land to agricultural or related open space uses. In return, landowners receive lower property tax assessments. In CEQA analyses, identification of properties that are under a Williamson Act contract is used to also identify sites that may contain agricultural resources or are zoned for agricultural uses. The project area is not subject of a Williamson Act contract.[8]

Fire and Resource Assessment Program

The California Department of Forestry and Fire Protection ("CAL FIRE") identifies forest land, timberland, and lands zoned for timberland production that can (or do) support forestry resources.[9] Programs such as CAL FIRE's Fire and Resource Assessment Program and are used to identify whether forest land, timberland, or timberland production areas that could be affected are located on or adjacent to a project area.

Regional

Sonoma County Local Coastal Plan's Agricultural Resources Element

The Sonoma County Local Coastal Plan's Agricultural Resources Element focuses on preserving agricultural land within the coastal zone by limiting urban development and promoting sustainable farming practices. It emphasizes economic viability through agricultural tourism, farmworker housing, and participation in conservation programs like the Williamson Act. The plan also addresses the challenges posed by climate change, balancing environmental protection with farming needs. Additionally, it seeks to prevent urban encroachment by controlling utility expansion into agricultural areas and supporting policies that maintain large, productive parcels for long-term agricultural use. The following are relevant goals from the Sonoma County Sonoma County Local Coastal Plan's Agricultural Resources Element regarding agricultural resources:

> Goal C-AR-1: Preserve agriculture as a long term economically viable land use by protecting agricultural production from intrusion of urban development on agricultural land, and allowing farmers to manage their operations without conflict from non-agricultural land uses, consistent with protection of coastal resources. Maintain the maximum amount of agricultural land in parcel sizes that are large enough to sustain a viable commercial agricultural operation.
>
> Goal C-AR-2: Facilitate agricultural production by allowing related agricultural support uses (agricultural processing and agricultural services), to be conveniently and accessibly located in agricultural production areas when related to the primary agricultural production in the area.

[8] Department of Conservation. 2024. California *Williamson Act Enrollment Finder*. Available: https://maps.conservation.ca.gov/dlrp/WilliamsonAct/App/index.html. Accessed September 17, 2024.
[9] California Department of Forestry and Fire Protection (CAL FIRE). 2024. *Fire and Resource Assessment Program*. Available: http://frap.fire.ca.gov/. Accessed: December, 2024.

Sonoma County General Plan's Agricultural Resource Element

Sonoma County has a significant agricultural economy and upbringing, with agriculture as one of its leading sectors, boasting a total production value of over 8 million dollars in 2021. The County General Plan's Agricultural Resource Element, adopted in 2008, is a comprehensive long-range guide for land in the unincorporated portions of the county, including land directly in the surrounding periphery of the Town of Forestville. The following are relevant goals from the Agricultural Resources Element regarding agricultural resources:

> Goal AG-3: Maintain the maximum amount of land in parcel sizes that a farmer would be willing to lease or buy for agricultural purposes.

Sonoma LAFCO Agricultural Policies

The Sonoma Local Agency Formation Commission (LAFCO) is an independent agency tasked with promoting efficient land use, preserving agricultural land, and preventing urban sprawl. Its key objectives are to guide the orderly development of public services, conserve agricultural and open spaces, and manage city boundaries and spheres of influence. Sonoma LAFCO ensures that prime agricultural land is protected by evaluating proposals that may convert farmland to non-agricultural use. It considers factors like the significance of the land, impact on surrounding agriculture, and alignment with growth and conservation policies, discouraging urban development on lands designated for long-term agriculture or open space.

Existing Setting

The project area is within "Urban and Built-Up Land" which is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel.[10] Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures. Additionally, a small portion of the project area is within "Other land" which is land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres.

Additionally, there are no properties located along Mirabel Road in the project area that are currently zoned forest land, timberland, or timberland zoned for production.

Impact Discussion

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

No Impact. The project area is not located within designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, the proposed project would not convert Prime Farmland to nonagricultural uses.

[10] California Department of Conservation. 2024. California Important Farmland. Available at: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed on: September 17, 2024.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. There are no Williamson Act contracts within or surrounding the project area; therefore, the proposed project would not conflict with a Williamson Act contract. The proposed project does not conflict with agricultural use because the project area is not zoned for agricultural use. Therefore, the proposed project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. Therefore, no impact would result.

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])?

No Impact. There are no properties located along Mirabel Road in the project area that are currently zoned forest land, timberland, or timberland zoned for production. Therefore, the proposed project would not conflict with or cause rezoning of such lands. No impact would result.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. No forest land is present in the project site. Therefore, no loss or conversion of forest land would result.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The proposed project would not result in any changes in the existing environment, such as limiting access to agricultural uses, that may result in conversion of farmland to non-agricultural uses. No impact would occur.

Cumulative Impacts

The proposed project includes intersection improvements primarily within the existing roadway. Implementation of the proposed project would not induce any additional or new population growth not already identified in the County General Plan or studied in the County General Plan EIR. The project area does not contain zoning or land use designations for agriculture, farmland, or forestland. Thus, the proposed project would not result in new impacts related to agricultural resources, nor would the proposed project result in an increase in the severity of an impact related to agricultural resources previously disclosed in the County General Plan EIR. Therefore, the proposed project would not cause either a new cumulative impact to occur, nor a substantial increase in the severity of a cumulative impact previously disclosed.

4.3 Air Quality

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			**X**	
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?			**X**	
c) Expose sensitive receptors to substantial pollutant concentrations?			**X**	
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?			**X**	

The following discussion is based in part on the Air Quality, Greenhouse Gas Emissions, and Energy Study prepared for the proposed project in December 2024. A copy of this report is included as **Appendix A** to this Initial Study.

Regulatory Setting

Federal

Clean Air Act

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the U.S. Environmental Protection Agency ("U.S. EPA") to establish National Ambient Air Quality Standards (NAAQS), with states retaining the option to adopt more stringent standards or to include other specific pollutants. On April 2, 2007, the Supreme Court found that carbon dioxide is an air pollutant covered by the CAA; however, no NAAQS have been established for carbon dioxide.

These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those "sensitive receptors" most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The U.S. EPA has classified air basins (or portions thereof) as being in attainment, nonattainment, or unclassified for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation.

National Emissions Standards for Hazardous Air Pollutants Program

Under federal law, 188 substances are listed as hazardous air pollutants (HAPs). Major sources of specific HAPs are subject to the requirements of the National Emissions Standards for HAPs program. The U.S. EPA is establishing regulatory schemes for specific source categories and requires implementation of Maximum Achievable Control Technologies for major sources of HAPs in each source category. State law has established the framework for California's Toxic air contaminant (TAC) identification and control program, which is generally more stringent than the federal program and is aimed at HAPs that are a problem in California. The state has formally identified 244 substances as TACs and is adopting appropriate control measures for each. Once adopted at the state level, each air district will be required to adopt a measure that is equally or more stringent.

State

California Air Toxics "Hot Spots" Information and Assessment Act (AB 2588)

The California Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) is a state-wide program enacted in 1987. AB 2588 requires facilities that exceed recommended Office of Environmental Health Hazard Assessment levels to reduce risks to acceptable levels.

Typically, land development projects generate diesel emissions from construction vehicles during the construction phase, as well as some diesel emissions from small trucks during the operational phase. Diesel exhaust is mainly composed of particulate matter and gases, which contain potential cancer-causing substances. Emissions from diesel engines currently include over 40 substances that are listed by U.S. EPA as hazardous air pollutants and by California Air Resources Board (CARB) as toxic air contaminants. On August 27, 1998, CARB identified particulate matter in diesel exhaust as a TAC, based on data linking diesel particulate emissions to increased risks of lung cancer and respiratory disease.

In September 2000, CARB adopted a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. The goal of the plan is to reduce diesel PM emissions and the associated health risk by 75 percent in 2010 and by 85 percent by 2020. As part of this plan, CARB identified Airborne Toxic Control Measures (ATCM) for mobile and stationary emissions sources. Each ATCM is codified in the California Code of Regulations, including the ATCM to limit diesel-fueled commercial motor vehicle idling, which puts limits on idling time for large diesel engines (13 CCR Chapter 10 Section 2485).

California Clean Air Act

The California CAA allows states to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the California ambient air quality standards. CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter

fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

In addition to standards set for the six criteria pollutants, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Further, in addition to primary and secondary ambient air quality standards, the State has established a set of episode criteria for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and particulate matter. These criteria refer to episode levels representing periods of short-term exposure to air pollutants that actually threaten public health.

Toxic Air Contaminants

A TAC is an air pollutant that may cause or contribute to an increase in mortality or serious illness or which may pose a present or potential hazard to human health. TACs may result in long-term health effects such as cancer, birth defects, neurological damage, asthma, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation, runny nose, throat pain, and headaches. TACs are considered either carcinogenic or non-carcinogenic based on the nature of the health effects associated with exposure. For carcinogenic TACs, potential health impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Non-carcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

TACs include both organic and inorganic chemical substances. One of the main sources of TACs in California is diesel engines that emit exhaust containing solid material known as DPM; however, TACs may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities.

In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (AB 1807: Health and Safety Code Sections 39650–39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, identify facilities having localized impacts, ascertain health risks, notify nearby residents of significant risks, and reduce those significant risks to acceptable levels. The Children's Environmental Health Protection Act, California Senate Bill (SB) 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires the CARB to review its air quality standards from a children's health perspective, evaluate the statewide air quality monitoring network, and develop any additional air toxic control measures needed to protect children's health.

California State Implementation Plan

The federal CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the SIP. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the national ambient air quality standards revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the Clean Air Act. The U.S. EPA has the responsibility to review all State Implementation Plans to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the Federal Register. As discussed below, the Bay Area Air Quality Management District (BAAQMD) Final 2017 Clean Air Plan ("Clean Air Plan") is the SIP for the SFBAAB.

Senate Bill 1889, Accidental Release Prevention Law/California Accidental Release Prevention Program

SB 1889 required California to implement a new federally mandated program governing the accidental airborne release of chemicals promulgated under Section 112 of the Clean Air Act. Effective January 1, 1997, the California Accidental Release Prevention Law ("CalARP") replaced the previous California Risk Management and Prevention Program and incorporated the mandatory federal requirements. CalARP addresses facilities that contain specified hazardous materials, known as regulated substances, which if involved in an accidental release, could result in adverse off-site consequences. CalARP defines regulated substances as chemicals that pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive.

California Ambient Air Quality Standards

The CARB and the U.S. EPA establish ambient air quality standards for major pollutants at thresholds intended to protect public health. The standards for some pollutants are based on other values such as protection of crops or avoidance of nuisance conditions. **Table 4-1** summarizes the State California Ambient Air Quality Standards (CAAQS) and the NAAQS.

CARB designates all areas within the State as either attainment (having air quality better than the CAAQS) or nonattainment (having a pollution concentration that exceeds the CAAQS more than once in three years). The SFBAAB is currently designated as a nonattainment area for state and national standards for ozone and $PM_{2.5}$, and state standards for PM_{10}. NSCAPCD is currently designated as attainment for all pollutants.

Regional

Northern Sonoma County Air Pollution Control District

Northern Sonoma County Air Pollution Control District ("NoSoCo Air") is the agency primarily responsible for attaining and maintaining the NAAQS and CAAQS in the NCAB portion of the County. NoSoCo Air is responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, and monitoring ambient air quality and meteorological

conditions. NCAB is in attainment for all federal ambient air quality standards, and, as such, the NoSoCo Air is not required to prepare or implement an air quality plan.

Specific NoSoCo Air rules applicable to development under the proposed project would include:

- Rule 400 – General Limitations. The general limitations rule ensures that a person may not create a public nuisance by discharging quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have an natural tendency to cause injury or damage to business or property. NoSoCo Air has established a nuisance rule to address odor issues. Rule 400 states that air contaminants will not be discharged in quantities sufficient to constitute a public nuisance to any considerable number of persons or the public or that would endanger the comfort or repose of any person or the public. Odors would be considered a nuisance by NoSoCo Air if a complaint is received from a significant number of people and the odor issue is verified upon inspection.
- Rule 410 – Visible Emissions. The visible emissions rule ensures that a person may not create a public nuisance by discharging into the atmosphere from any source whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated as No. 2 on the Ringlemann Chart, as published by the United States Bureau of Mines or of such opacity as to obscure an observer's view to a degree equal to or greater than Ringlemann 2 or 40 percent opacity.
- Rule 420 – Particulate Matter. The particulate matter rule ensures that no person may discharge particulate matter into the atmosphere causing a public nuisance or causing an exceedance of State or national ambient air quality standards. Various emission limits are defined in the rule governing particulate emissions from different sectors of industry.
- Rule 430 – Fugitive Dust Emissions. The fugitive dust rule ensures that the handling, transporting, or open storage of materials in such a manner which allows or may allow unnecessary amounts of particulate matter to become airborne, shall not be permitted. The rule also defines a set of reasonable precautions designed to aid in preventing violation the rule.
    - Regulation II – Open Burning. This regulation prohibits the use of open outdoor fires within the Basin with certain exemptions as outlined in the regulation.
    - Regulation IV – Control Measure for Wood-Fired Appliance Emissions. This regulation is intended to limit and/or reduce particulate emissions caused by the use of wood-fired appliances, which must be U.S. EPA or District certified, and emit less than or equal to 7.5 grams particulate per hour for a non-catalytic, wood-fired appliance or 4.1 grams per hour for a catalytic wood fired appliance.

Sonoma County General Plan

The County General Plan includes policies within the Open Space and Resource Conservation Element that aim to protect air quality by promoting sustainable land use practices and reducing sources of air pollution. These policies emphasize minimizing emissions, maintaining clean air, and ensuring the health and well-being of residents and natural resources.

The current County General Plan contains the following goals, objectives and policies related to air quality:

Goal OSRC-7: Preserve and maintain good air quality and provide for an air quality standard that will protect human health and preclude crop, plant, and property damage in accordance with the requirements of the Federal and State Clean Air Acts.

Objective OSRC- 16.1: Minimize air pollution and greenhouse gas emissions.

Objective OSRC-16.2: Encourage reduced motor vehicle use as a means of reducing resultant air pollution. The following policies, in addition to those of the Circulation and Transit Element, shall be used to achieve these objectives:

Policy OSRC-16a: Require that development projects be designed to minimize air emissions. Reduce direct emissions by utilizing construction techniques that decrease the need for space heating and cooling.

Policy OSRC-16b: Encourage public transit, ridesharing, and van pooling, shortened and combined motor vehicle trips to work and services, use of bicycles, and walking. Minimize single passenger motor vehicle use.

Policy OSRC-16c: Refer projects to the local air quality districts for their review.

Policy OSRC-16d: Review proposed changes in land use designations for potential deterioration of air quality and deny them unless they are consistent with the air quality levels projected in the County General Plan EIR.

Policy OSRC-16e: Cooperate with the local air quality district to monitor air pollution and enforce mitigations in areas affected by emissions from fireplaces and woodburning stoves.

Policy OSRC-16f: Encourage the adoption of standards, the development of new technology, and retrofitting to reduce air pollution resulting from geothermal development.

Policy OSRC-16g: Residential units shall be required to only install fireplaces, woodstoves or any other residential wood-burning devices that meet the gram-per-hour U.S. EPA or Oregon DEQ wood heater emissions limits (exempt devices are not allowed).

Policy OSRC-16h: Require that development within the BAAQMD that generates high numbers of vehicle trips, such as shopping centers and business parks, incorporate air quality mitigation measures in their design.

Policy OSRC-16i: Ensure that any proposed new sources of toxic air contaminants or odors provide adequate buffers to protect sensitive receptors and comply with applicable health standards. Promote land use compatibility for new development by using buffering techniques such as landscaping, setbacks, and screening in areas where such land uses abut one another.

Policy OSRC-16j: Require consideration of odor impacts when evaluating discretionary land uses and development projects near wastewater treatment plant or similar uses.

Policy OSRC-16k: Require that discretionary projects involving sensitive receptors (facilities or land uses that include members of the population sensitive to the effects of air pollutants such

as children, the elderly, and people with illnesses) proposed near the Highway 101 corridor include an analysis of mobile source toxic air contaminant health risks. Project review should, if necessary, identify design mitigation measures to reduce health risks to acceptable levels.

Policy OSRC-16l: Work with the applicable Air Quality districts to adopt a diesel particulate ordinance. The ordinance should prioritize on site over off site mitigation of diesel particulate emissions to protect neighboring sensitive receptors from these emissions.

Policy OSRC-16m: Provide education and outreach to the public regarding the Air Quality Districts' "Spare the Air" Programs.

Sonoma County Municipal Code

Chapter 19 Article IV Section 57

The board of supervisors of the County of Sonoma, State of California, does find that the county encourages people to walk and ride bicycles rather than drive motor vehicles in order to lessen traffic congestion, improve air quality and improve public health.

Chapter 18 Article VII Section 50

In an effort to reduce traffic congestion and protect our environment with particular attention to clean air and conservation of energy, the county proposes to encourage a reduction of single-occupant commuter trips by their employees within the unincorporated areas.

Existing Setting

The project area is located in the North Coast Air Basin (NCAB), which is under the jurisdiction of the NoSoCo Air. As the local air quality management agency, NoSoCo Air 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.

The northern portion of Sonoma County (from approximately north of Windsor to the northern County border) is in the NCAB, which includes Geyserville, Forestville, Guerneville, and the project area. Air quality in this basin is affected by the region's emission sources and by natural factors. Topography, wind speed and direction, and air temperature gradient all influence air quality. The basin is affected by a Mediterranean climate, with warm, dry summers and cool, damp winters.

Stationary and mobile sources generate air pollutant emissions in the basin. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and are generated by residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products, among other things. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and construction equipment. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

The part of Sonoma County in the NCAB, where the proposed project is located, has lower pollutant concentrations and typically good air quality due to its lower population density, proximity to the coast, and large mountain ranges.

Air Pollutants of Primary Concern

Primary criteria pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack. The federal and State CAA mandate the control and reduction of certain air pollutants. Under these laws, the U.S. EPA and the CARB have established the NAAQS and the CAAQS for "criteria pollutants" and other pollutants. Some pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere, including carbon monoxide, volatile organic compounds (VOC)/reactive organic gases (ROG), 1 nitrogen oxides (NO_X), particulate matter with diameters of up to ten microns (PM_{10}) and up to 2.5 microns ($PM_{2.5}$), sulfur dioxide, and lead. Other pollutants are created indirectly through chemical reactions in the atmosphere, such as ozone, which is created by atmospheric chemical and photochemical reactions primarily between ROG and NO_X. Secondary pollutants include oxidants, ozone, and sulfate and nitrate particulates (smog). The characteristics, sources and effects of criteria pollutants are discussed in the following subsections. The following subsections describe the characteristics, sources, and health and atmospheric effects of air pollutants of primary concern.

Ozone

Ozone is a highly oxidative unstable gas produced by a photochemical reaction (triggered by sunlight) between NO_X and ROG. ROG is composed of non-methane hydrocarbons (with specific exclusions), and NO_X is composed of different chemical combinations of nitrogen and oxygen, mainly nitric oxide (NO) and Nitrogen dioxide (NO_2). NO_X is formed during the combustion of fuels, while ROG is formed during the combustion and evaporation of organic solvents. As a highly reactive molecule, ozone readily combines with many multiple different atmosphere components. Consequently, high ozone levels tend to exist only while high ROG and NO_X levels are present to sustain the ozone formation process. Once the precursors have been depleted, ozone levels rapidly decline. Because these reactions occur on a regional rather than local scale, ozone is considered a regional pollutant. In addition, because ozone requires sunlight to form, it mainly occurs in concentrations considered serious between April and October. Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors. Depending on the level of exposure, ozone can cause coughing and a sore or scratch throat; make it more difficult to breathe deeply and vigorously and cause pain when taking a deep breath; inflame and damage the airways; make the lungs more susceptible to infection; and aggravate lung diseases such as asthma, emphysema, and chronic bronchitis.

Carbon Monoxide

Carbon monoxide (CO) is a localized pollutant found in high concentrations only near its source. The primary source of CO, a colorless, odorless, poisonous gas, is automobile traffic's incomplete combustion of petroleum fuels. Therefore, elevated concentrations are usually only found near areas of high traffic volumes. Other sources of CO include the incomplete combustion of petroleum fuels at power plants and fuel combustion from wood stoves and fireplaces throughout the year. When CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease. These people already have a reduced ability to get oxygenated blood to their hearts in situations where they need more oxygen than usual. As a result, they are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to

elevated CO may result in reduced oxygen to the heart accompanied by chest pain, also known as angina.

Nitrogen Dioxide

NO_2 is a by-product of fuel combustion. The primary sources are motor vehicles and industrial boilers, and furnaces. The principal form of NO_X produced by combustion is NO, but NO reacts rapidly to form NO_2, creating the mixture of NO and NO_2, commonly called NO_X. NO_2 is a reactive, oxidizing gas and an acute irritant capable of damaging cell linings in the respiratory tract. Breathing air with a high concentration of NO_2 can irritate airways in the human respiratory system. Such exposures over short periods can aggravate respiratory diseases leading to respiratory symptoms (such as coughing, wheezing, or difficulty breathing), hospital admissions, and visits to emergency rooms. Longer exposures to elevated concentrations of NO_2 may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. People with asthma, such as children and the elderly are generally at greater risk for the health effects of NO_2. NO_2 absorbs blue light and causes a reddish-brown cast to the atmosphere and reduces visibility. It can also contribute to the formation of Ozone/smog and acid rain.

Sulfur Dioxide

Sulfur dioxide (SO_2) is included in a group of highly reactive gases known as “oxides of sulfur.” The largest sources of SO_2 emissions are from fossil fuel combustion at power plants (73 percent) and other industrial facilities (20 percent). Smaller sources of SO_2 emissions include industrial processes such as extracting metal from ore and burning fuels with a high sulfur content by locomotives, large ships, and off-road equipment. Short-term exposures to SO_2 can harm the human respiratory system and make breathing difficult. People with asthma, particularly children, are sensitive to these effects of SO_2.

Particulate Matter

Suspended atmospheric PM_{10} and $PM_{2.5}$ are comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. Both PM_{10} and $PM_{2.5}$ are emitted into the atmosphere as by-products of fuel combustion and wind erosion of soil and unpaved roads. The atmosphere, through chemical reactions, can form particulate matter. The characteristics, sources, and potential health effects of PM_{10} and $PM_{2.5}$ can be very different. PM_{10} is generally associated with dust mobilized by wind and vehicles. In contrast, $PM_{2.5}$ is generally associated with combustion processes and formation in the atmosphere as a secondary pollutant through chemical reactions. PM_{10} can cause increased respiratory disease, lung damage, cancer, premature death, reduced visibility, surface soiling. For $PM_{2.5}$, short-term exposures (up to 24-hours duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases.

Lead

Lead (Pb) is a metal found naturally in the environment, as well as in manufacturing products. The major sources of lead emissions historically have been mobile and industrial. However, due to the U.S. EPA ’s regulatory efforts to remove lead from gasoline, atmospheric Pb concentrations have declined substantially over the past several decades. The most dramatic reductions in Pb emissions occurred before 1990 due to the removal of Pb from gasoline sold for most highway vehicles. Pb emissions were further reduced substantially between 1990 and 2008, with reductions occurring in the metals industries

at least partly due to national emissions standards for hazardous air pollutants. As a result of phasing out leaded gasoline, metal processing is currently the primary source of Pb emissions. The highest Pb level in the air is generally found near Pb smelters. Other stationary sources include waste incinerators, utilities, and Pb-acid battery manufacturers. Pb can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and cardiovascular system depending on exposure. Pb exposure also affects the oxygen-carrying capacity of the blood. The Pb effects most likely encountered in current populations are neurological in children. Infants and young children are susceptible to Pb exposures, contributing to behavioral problems, learning deficits, and lowered IQ.

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, TAC are airborne substances diverse group of air pollutants that may cause or contribute to an increase in deaths or serious illness, or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. One of the main sources of TACs in California is diesel engine exhaust that contains solid material known as diesel particulate matter (DPM). More than 90 percent of DPM is less than one micron in diameter (about 1/70th the diameter of a human hair) and thus is a subset of $PM_{2.5}$. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs. TACs are different than criteria pollutants because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., long duration) and acute (i.e., severe but of short duration) adverse effects on human health. People exposed to TACs at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects. These health effects can include damage to the immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and other health problems.

Current Air Quality

NoSoCo Air operates a network of air quality monitoring stations throughout the NCAB. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and to determine whether ambient air quality meets the NAAQS and CAAQS.

The monitoring station closest to the project area is the Sebastopol-103 Morris Street Station, which is located approximately 7.9 miles southeast of the project area, and was used for ozone, nitrogen dioxide, and $PM_{2.5}$ measurements. The monitoring station closest to the project area is the Guerneville-Church and 1st Station, which is located approximately 8.4 miles west of the project area, and was used for PM_{10} measurements. SO_2 is not monitored in Sonoma County and therefore is not reported. CO data was not available from either monitoring station.

Table 4-1 indicates the number of days that each of the federal and state standards have been exceeded at this station in the years 2021, 2022, and 2023. The data indicates that the 24-hour $PM_{2.5}$ NAAQS was exceeded for 2023. As shown in **Table 4-1**, no other state or federal standards were exceeded at these monitoring stations.

Table 4-1: Ambient Air Quality – Monitoring Station Measurements

Pollutant	2021	2022	2023
Ozone (ppm), Worst 1-Hour	0.071	0.064	0.067
Number of days above CAAQS (>0.09 ppm)	0	0	0
Number of days above NAAQS (>0.12 ppm)	0	0	0
Ozone (ppm), Worst 8-Hour Average	0.063	0.055	0.051
Number of days above CAAQS (>0.070 ppm)	0	0	0
Number of days above NAAQS (>0.070 ppm)	0	0	0
Nitrogen Dioxide (ppm), Worst 1-Hour	0.026	0.031	0.027
Number of days above CAAQS (>0.180 ppm)	0	0	0
Number of days above NAAQS (>0.100 ppm)	0	0	0
Particulate Matter <10 microns (µg/m^3), Worst 24 Hours	50.6	35.5	47.5
Number of days above CAAQS (>50 µg/m^3)	0	0	0
Number of days above NAAQS (>150 µg/m^3)	0	0	0
Particulate Matter <2.5 microns (µg/m^3), Worst 24 Hours	29.5	25.5	42.0
Number of days above NAAQS (>35 µg/m^3)	0	0	0
ppm = parts per million; µg/m^3 = micrograms per cubic meter; CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard			
Notes: Measurements from nearest monitoring stations (103 Morris Street Station in Sebastopol for ozone, nitrogen dioxide, and $PM_{2.5}$ measurements; Church and 1st Station in Guerneville for PM_{10} measurements).			
Source: Rincon Consultants, 2024			

Sensitive Receptors

CARB and the Office of Environmental Health Hazard Assessment have identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The sensitive receptors nearest to the project area are single family residences located directly adjacent to the project area to the west and east. The proposed project would not include new sensitive receptors.

Impact Discussion

Air pollutant and Greenhouse gas (GHG) emissions generated by project construction and operation were estimated using the California Emissions Estimator Model ("CalEEMod"), version 2022.1. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria

pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. CalEEMod allows for the use of standardized data (e.g., emission factors, trip lengths, meteorology, source inventory) provided by the various California air districts to account for local requirements and conditions, and/or user-defined inputs. The calculation methodology and input data used in CalEEMod can be found in the CalEEMod User's Guide Appendices C, D, and G.[11] The analysis reflects construction and operation of the proposed project as described in **Section 2.0, Description of Proposed Project**.

Construction Methodology

Proposed project construction would primarily generate temporary criteria pollutant and GHG emissions from construction equipment operation on-site, construction worker vehicle trips to and from the site, and import/export of materials off-site. Construction of the proposed project was analyzed based on the land use type and square footage described provided by the applicant, which includes the construction of 1.38 linear miles for a road widening project. Construction of the proposed project was assumed to begin in September 2026 and end in March 2026, for an approximately six-month duration. Applicant-provided information was used for equipment lists and vehicle trips. During the demolition phase, the proposed project would not import or export any material, as the roadway will not be demolished but rather widen the current roadway. Approximately 3,200 cubic yards of material will be exported off-site during the grading phase. It is assumed that construction equipment used would be diesel-powered and the proposed project would comply with applicable regulatory standards.

Construction GHG emissions are typically amortized over the proposed project life cycle, as the nature of construction emissions is relatively intense and occur over a shorter time period compared to operational emissions. Neither NoSoCo Air nor the County of Sonoma have provided guidance on what the amortization period for individual projects should be. The Association of Environmental Professionals (2016) recommends GHG emissions from construction be amortized over 30 years.

Operation Methodology

The proposed project will not result in additional operational emissions beyond existing conditions. The proposed project is a road widening project at Mirabel Road from SR 116 to River Road in Forestville to accommodate Class II bike lanes and northbound and southbound left turn lanes at intersection of Davis Road and Giusti Road as part of the Mirabel Road Corridor Improvements project A Class I bike path would be constructed on the east side of Mirabel Road between SR 116 and Davis Road. The purpose of this proposed project is to improve the mobility and safety of the existing roadway for all modes of transportation by constructing left turn lanes at Davis Road and Giusti Road intersection and widening the narrow segments of the Mirabel Road to meet the standards of a Class II bike lane. Therefore, no impacts from operation would occur and operational emissions are not discussed further in the report.

Regional Significance Thresholds

NoSoCo Air does not currently have any established CEQA Guidelines for individual development projects. NoSoCo Air recommends that projects use BAAQMD quantitative air thresholds (**Table 4-2**) to determine the significance of project emissions. If the proposed project has the potential to exceed these air pollution thresholds, the proposed project should be considered to have significant air quality

[11] California Air Pollution Control Officers Association. 2022. California Emissions Estimator Model User Guide Version 2022. Available: https://www.caleemod.com/documents/user-guide/CalEEMod_User_Guide_v2022.1.pdf. Accessed: December, 2024.

impacts. **Table 4-2** shows the significance thresholds for construction criteria air pollutant and precursor emissions used for this analysis from the BAAQMD's 2022 CEQA Air Quality Guidelines. 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 NCAB's existing air quality conditions.

Table 4-2: BAAQMD Air Quality Significance Thresholds

Pollutant	Construction Thresholds
	Average Daily Emissions (lbs/day)
ROG	54
NO_X	54
PM_{10}	82 (exhaust)
$PM_{2.5}$	54 (exhaust)
ROG = reactive organic gases, NOX = nitrogen oxides, PM10 = particulate matter 10 microns in diameter or less, PM2.5 = particulate matter 2.5 microns or less in diameter; lbs/day = pounds per day	
Source: Rincon Consultants, 2024	

Carbon Monoxide

Similarly, NoSoCo Air defers to BAAQMD guidance regarding significance determination of CO contributions from individual development projects. BAAQMD provides a preliminary screening methodology to conservatively determine whether a proposed project would exceed carbon monoxide thresholds. If the following criteria are met, the proposed project would result in a less than significant impact related to local carbon monoxide concentrations:

- The proposed project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plans, and local congestion management agency plans.
- The proposed project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The proposed project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Odor Sources

Similarly, NoSoCo Air defers to BAAQMD guidance regarding significance determination of odor sources from individual development projects. The BAAQMD provides minimum distances for the siting of new odor sources as shown in **Table 4-3**. A significant impact would occur if the proposed project resulted in other emissions (such as odors) affecting substantial numbers of people or would site a new odor source within the specified distances of existing receptors.

Table 4-3: BAAQMD Odor Source Thresholds

Odor Source	Minimum Distance for Less than Significant Odor Impacts (in miles)
Wastewater Treatment Plant	2
Wastewater Pumping Facilities	1
Sanitary Landfill	2
Transfer Station	1
Composting Facility	1
Petroleum Refinery	2
Asphalt Batch Plant	2
Chemical Manufacturing	2
Fiberglass Manufacturing	1
Painting/Coating Operations	1
Rendering Plant	2
Coffee Roaster	1
Food Processing Facility	1
Confined Animal Facility/Feed Lot/Diary	1
Green Waste and Recycling Operations	1
Metal Smelting Plants	2
Source: Rincon Consultants, 2024	

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The California CAA requires that air districts create a Clean Air Plan (2017 Plan) that describes how the jurisdiction will meet air quality standards. As NoSoCo Air does not have established thresholds, this assessment defers to BAAQMD-established thresholds. As such, the most recently adopted air quality plan is the BAAQMD 2017 Plan. The 2017 Plan builds upon and enhances the BAAQMD's efforts to reduce emissions of fine particulate matter and TACs. The 2017 Plan does not include control measures that apply directly to individual development projects. Instead, the control strategy includes control measures related to stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants.

The 2017 Plan focuses on two paramount goals:

- Protect air quality and health at the regional and local scale by attaining all national and state air quality standards and eliminating disparities among Bay Area communities in cancer health risk from TACs.

- Protect the climate by reducing Bay Area GHG emissions to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050.

Under BAAQMD's methodology, a determination of consistency with the 2017 Plan should demonstrate that a project:

- 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.

A project that would not support the 2017 Plan's goals would not be consistent with the 2017 Plan. On an individual project basis, consistency with BAAQMD quantitative thresholds is interpreted as demonstrating support for the clean air plan's goals. As shown in the response to Threshold 2 below, the proposed project would not result in exceedances of BAAQMD thresholds for criteria air pollutants and thus would not conflict with the 2017 Plan's goal to attain air quality standards. Furthermore, as shown in **Table 4-4**, the proposed project would be consistent with applicable control measures from the 2017 Plan and would not disrupt or hinder implementation of such control measures. Therefore, proposed project impacts related to consistency with the 2017 Plan would be less than significant.

Table 4-4: Consistency with Applicable Control Measures of 2017 Plan

Control Measure	Evaluation
TR9: Bicycle and Pedestrian Access and Facilities. Encourage planning for bicycle and pedestrian facilities in local plans, e.g., general and specific plans, fund bike lanes, routes, paths and bicycle parking facilities.	**Consistent.** The proposed project would include the widening of roadways to allow for safe bicycle lanes and pedestrian access along Mirabel Road.
TCM-D1: Bicycle Access and Facilities Improvements. Expand bicycle facilities serving employment sites, educational and cultural facilities, residential areas, shopping districts and other activity centers.	**Consistent.** The proposed project would include the widening of roadways to allow for safe bicycle lanes and access along Mirabel Road.
Source: Rincon Consultants, 2024	

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact. Project construction would involve activities that have the potential to generate air pollutant emissions. **Table 4-5** summarizes the estimated maximum daily emissions of ROG, NO_X, CO, PM_{10} exhaust, $PM_{2.5}$ exhaust, and sulfur oxide (SO_X) during project construction. As shown in **Table 4-5**, project construction emissions for all criteria pollutants would be below the BAAQMD average daily thresholds of significance and therefore would be less than significant.

Table 4-5: Project Construction Emissions

	Average Daily Emissions (lbs/day)					
	ROG	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Average Daily Emissions	1	4	5	<1	<1	<1
BAAQMD Thresholds (average daily emissions)	54	54	N/A	N/A	82	54
Threshold Exceeded?	**No**	**No**	**N/A**	**N/A**	**No**	**No**
N/A = not applicable (no BAAQMD threshold for CO or SO_X) See CalEEMod worksheets in Appendix A.						
Source: Rincon Consultants, 2024						

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact.

Carbon Monoxide Hotspots

A carbon monoxide hotspot is a localized concentration of carbon monoxide that is above ambient air quality standard. Localized carbon monoxide hotspots can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local carbon monoxide concentration exceeds the federal one-hour standard of 35.0 parts per million (ppm) or the federal and state eight-hour standard of 9.0 ppm.

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

- The proposed project is consistent with an applicable congestion management program for designated roads or highways, regional transportation plan, and local congestion management agency plans
- The proposed project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The proposed 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 proposed project would involve minor traffic increases due to construction (e.g., worker trips) and would not increase operational trips. Therefore, the proposed project would not increase vehicle traffic at any intersection above the screening thresholds listed above and the impact of localized carbon monoxide emissions would not be significant.

Toxic Air Contaminants

Construction-related activities would result in temporary project-generated DPM exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, grading, building construction, and other construction activities. Generation of DPM, which was identified as a TAC by CARB in 1998, from construction projects typically occurs in a single area for a short period. The proposed project's construction would occur in phases over approximately six months with sensitive receptors located directly adjacent to the project area to the west and east. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has to the substance. Dose is positively correlated with time, and a more extended exposure period would result in a higher exposure level for the maximally exposed individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a more extended period. Risk is also correlated to exposure age of sensitive receptors, captured by "age sensitivity factors." Sensitive receptors in the third trimester of pregnancy up to age 2 are more sensitive to TAC exposures. Age sensitivity would more strongly apply to the residential sensitive receptors than the school sensitive receptors.

The proposed project would be consistent with the applicable air district requirements and control strategies intended to reduce emissions from construction equipment and activities, such as NoSoCo Air Rule 400, 410, and 420. The proposed project would comply with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than five minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction. Therefore, based on compliance with existing regulations and duration of construction, project construction would not result in potentially significant TAC emissions. Impacts would be less than significant.

d) Result in other emissions such as those leading to odors adversely affecting a substantial number of people?

Less Than Significant Impact. The proposed project would generate temporary oil and diesel fuel odors during construction from equipment use that would disperse quickly with distance. With respect to operation, the BAAQMD's 2022 CEQA Guidelines (2023) identifies land uses associated with odor complaints to include, but not limited to, wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. Road widening projects to accommodate bicycle lanes are not identified on this list shown in **Table 4-3**. Therefore, the proposed project would not generate objectionable odors affecting a substantial number of people, and impacts would be less than significant.

Cumulative Impacts

As discussed above, the proposed project's construction activities would generate temporary emissions of air pollutants, including greenhouse gases, from equipment use, worker commutes, and material hauling. However, emissions would remain below established thresholds for significance as determined by modeling with CalEEMod, and all activities would comply with applicable air quality regulations. These temporary impacts are typical of construction projects and would not result in a cumulatively considerable contribution to regional air quality issues.

Operational impacts are not expected, as the proposed project involves roadway improvements that do not introduce new emission sources. By incorporating bicycle lanes and enhancing non-vehicular mobility, the proposed project supports regional air quality plans and strategies to reduce vehicle miles traveled. Consequently, the proposed project's cumulative air quality impacts would be less than significant.

4.4 Biological Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	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 Game or U.S. Fish and Wildlife Service?		**X**		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?		**X**		
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		**X**		
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?			**X**	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			**X**	
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?				**X**

The following discussion is based in part on the Biological Resources Report and the Delineation of Wetlands and Other Waters prepared in May 2025 for the proposed project as well as Tree Inventory that was prepared in July 2025. A copy of these reports are included as **Appendix B, Appendix C,** and **Appendix D** to this Initial Study.

Regulatory Setting

Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) establishes a broad public and federal interest in identifying, protecting, and providing for the recovery of threatened or endangered species. The Secretary of Interior and the Secretary of Commerce are designated in FESA as responsible for identifying endangered and threatened species and their designated critical habitat, carrying out programs for the conservation of these species, and rendering opinions regarding the impact of proposed federal actions on listed species. The U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) are charged with implementing and enforcing the FESA (16 USC Section 1531). USFWS has authority over terrestrial and continental aquatic species, and NMFS has authority over species that spend all or part of their life cycle at sea, such as salmonids.

Section 9 of FESA prohibits the unlawful "take" of any listed fish or wildlife species. Take, as defined by FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such action." USFWS's regulations define harm to mean "an act which actually kills or injures wildlife." Such an act "may include "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (50 Code of Federal Regulations [CFR] § 17.3). Take can be permitted under FESA pursuant to sections 7 and 10.

Section 7 provides a process for take permits for federal projects or projects subject to a federal permit, requiring interagency consultation if there is a federal nexus. Section 10 provides a process for incidental take permits for projects proposed by private individuals, requiring the submittal of a Habitat Conservation Plan (HCP). The Section 7 consultation process, which applies to both listed animal and plant species, is designed to ensure that the federal agency action does not jeopardize the continued existence of a listed species or destroy or adversely modify its critical habitat. An HCP prepared under Section 10 outlines conservation measures to minimize the impacts of incidental take to listed species, including measures to maintain, enhance and protect the species' habitat. FESA does not extend the take prohibition to federally listed plants on private land, other than prohibiting the removal, damage, or destruction of such species in violation of state law.

The Migratory Bird Treaty Act of 1918

The U.S. Migratory Bird Treaty Act (MBTA) (16 USC §§ 703 et seq., Title 50 CFR Part 10) states it is "unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill; attempt to take, capture or kill; possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or in part, of any

such bird or any part, nest or egg thereof…" In short, under MBTA it is illegal to disturb a nest that is in active use, since this could result in killing a bird, destroying a nest, or destroying an egg. The USFWS enforces MBTA. The MBTA does not protect bird species that are non-native or human-introduced or that belong to families that are not covered by any of the conventions implemented by MBTA.

State

California Endangered Species Act

Provisions of California Endangered Species Act (CESA) protect state-listed threatened and endangered species. The CESA (Fish and Game Code Section 2050 et. seq.) prohibits take of State-listed threatened or endangered. CDFW is charged with establishing a list of endangered and threatened species. CDFW regulates activities that may result in "take" of a listed species (i.e., "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill"). Habitat degradation or modification is not expressly included in the definition of "take" under the California Fish and Game Code (CFGC), but CDFW has interpreted "take" to include the killing of a member of a species that is the proximate result of habitat modification.

Fish and Game Code 1600-1602

Sections 1600-1607 of the CFGC require that a Notification of Lake or Streambed Alteration Agreement (LSAA) application be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." CDFW reviews the proposed actions in the application and, if necessary, prepares an LSAA that includes measures to protect affected fish and wildlife resources.

Nesting Birds

Nesting birds, including raptors, are protected under CFGC Section 3503, which reads, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." In addition, under CFGC Section 3503.5, "it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nestor eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto". Passerines and non-passerine land birds are further protected under CFGC 3513. As such, CDFW typically recommends surveys for nesting birds that could potentially be directly (e.g., actual removal of trees/vegetation) or indirectly (e.g., noise disturbance) impacted by project-related activities.

Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by CDFW.

Non-Game Mammals

Sections 4150-4155 of the CFGC protects non-game mammals, including bats. Section 4150 states "A mammal occurring naturally in California that is not a game mammal, fully protected mammal, or fur-bearing mammal is a nongame mammal. A non-game mammal may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the commission". The non-game mammals that may be taken or possessed are primarily those that cause crop or property damage. Bats are classified as a non-game mammal and are protected under the CFGC.

California Fully Protected Species and Species of Special Concern

The classification of "fully protected" was the CDFW's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The Fish and Game Code sections(fish at §5515, amphibians and reptiles at §5050, birds at §3503 and §3511, and mammals at §4150 and §4700) dealing with "fully protected" species state that these species "…may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species," although take may be authorized for necessary scientific research. This language makes the "fully protected" designation the strongest and most restrictive regarding the "take" of these species. In 2003, the code sections dealing with "fully protected" species were amended to allow the CDFW to authorize take resulting from recovery activities for state-listed species.

California Species of Special Concern are broadly defined as animals not listed under the FESA or CESA, but which are nonetheless of concern to the CDFW because they are declining at a rate that could result in listing or because they historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by the CDFW, land managers, consulting biologists, and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under the CEQA during project review.

Regional

Sonoma County General Plan

The County General Plan Land Use Element and Open Space & Resource Conservation Element both contain policies to protect natural resource lands including, but not limited to, watershed, fish and wildlife habitat, biotic areas, and habitat connectivity corridors.

The current County General Plan contains the following goals, objectives and policies related to biological resources:

Goal OSRC-7: Protect and enhance the County's natural habitats and diverse plant and animal communities.

> **Objective OSRC-7.1:** Identify and protect native vegetation and wildlife, particularly occurrences of special status species, wetlands, sensitive natural communities, woodlands, and areas of essential habitat connectivity.
>
> **Objective OSRC-7.5**: Maintain connectivity between natural habitat areas.
>
> **Objective OSRC-7.6:** Establish standards and programs to protect native trees and plant communities.
>
> **Objective OSRC-7.7:** Support use of native plant species and removal of invasive exotic species.

Policy OSRC-7k: Require the identification, preservation and protection of native trees and woodlands in the design of discretionary projects, and, to the maximum extent practicable, minimize the removal of native trees and fragmentation of woodlands, require any trees removed to be replaced, preferably on the site, and provide permanent protection of other existing woodlands where replacement planting does not provide adequate mitigation.

Policy OSRC-7o: Encourage the use of native plant species in landscaping. For discretionary projects, require the use of native or compatible non-native species for landscaping where consistent with fire safety. Prohibit the use of invasive exotic species.

Goal OSRC-8: Protect and enhance Riparian Corridors and functions along streams, balancing the need for agricultural production, urban development, timber and mining operations, and other land uses with the preservation of riparian vegetation, protection of water resources, flood control, bank stabilization, and other riparian functions and values.

Objective OSRC-8.3: Recognize and protect riparian functions and values of undesignated streams during review of discretionary projects.

Policy OSRC-8d: Allow or consider allowing the following uses within any streamside conservation area:

(2) Streamside maintenance and restoration

(4) Road crossings, street crossings, utility line crossings

(11) Creekside bikeways, trails, and parks within Urban Residential, Commercial, Industrial, or Public-Quasi Public land use categories.

Sonoma County Municipal Code

The following discussion identifies local environmental regulations that serve to protect sensitive biological resources relevant to the CEQA review process.

Heritage or Landmark Trees, Tree Protection - The Sonoma County Code Section 26D, *Heritage or Landmark Trees*, provides standards for the removal, protection, and preservation of trees. The ordinance requires a tree permit for any heritage or landmark tree to be removed or damaged during project construction. In addition to requiring tree removal permits, the ordinance also requires measures to protect existing trees during project construction. Sonoma County Zoning Code Article 88, Section 26-88-010(m), *Tree Protection Ordinance*, requires projects to be designed to minimize the removal of protected trees that meet size and species criteria specified in the ordinance, and replanting for trees removed. While this ordinance is not applicable to County Public Works projects, it is used as a guide for determining impacts and appropriate mitigation measures.

Valley Oak Habitat Combining District - Additionally, Article 67, *Valley Oak Habitat Combining District*, of the Sonoma County Zoning Code provides for protection and enhancement of oak woodland habitats. Removal of oak trees in this zoning district requires mitigation measures including retention of other oaks, replacement plantings, and/or an in-lieu fee. While this portion of the zoning code is not applicable to County Public Works projects, it is used as a guide for determining impacts and appropriate mitigation measures.

Riparian Corridor Combining Zone - Riparian corridors are protected by Article 65, *Riparian Corridor Combining Zone*. This combining zone protects County-designated streams, including the bed, bank, and adjacent streamside conservation areas as measured from the top of bank or the outer drip line of the riparian trees. Specific setbacks are determined based on the affected river or stream and site-specific conditions but generally include a 25- to 200-foot setback. While this portion of the zoning code is not applicable to County Public Works projects, it is used as a guide for determining impacts and appropriate mitigation measures.

Biotic Habitat (BH) Combining Zone - The BH combining zone is established to protect and enhance Biotic Habitat Areas for their natural habitat and environmental values and to implement the provisions of the County General Plan Open Space and Resource Conservation Element, Area Plans and Specific Plans. Protection of these areas helps to maintain the natural vegetation, support native plant and animal species, protect water quality and air quality, and preserve the quality of life, diversity and unique character of the County. While this portion of the zoning code is not applicable to County Public Works projects, it is used as a guide for protecting Biotic Habitat Areas and for determining impacts and appropriate mitigation measures.

Existing Setting

The climate in the proposed project vicinity is coastal Mediterranean, with most rain falling in the winter and spring. Mild cool temperatures are common in the winter. Hot to mild temperatures are common in the summer. Climate conditions in the vicinity include a 30-year average of approximately 42 inches of annual precipitation with a monthly average temperature range from 44.5°F to 71.1°F. Elevations along the proposed project alignment range from 80 feet above mean sea level at the northern end of the site, 225 feet at the Forestville Youth Park in the middle the project area, and 195 feet at the southern end near the Highway 116. The Natural Resource Conservation Service (NRCS) has mapped four soil units in the project area: (1) Goldridge fine sandy loam, 2 to 9 percent slopes; hydric, (2) Goldridge fine sandy loam, 9 to 15 percent slopes, (3) Goldridge fine sandy loam, 15 to 30 percent slopes; eroded, and (4) Josephine loam, 9 to 30 percent slopes. The Goldridge series consists of deep and very deep, moderately well drained soils formed in material weathered from sandstone. They are located in rolling uplands. Josephine series are deep, well drained soils formed in colluvium and residuum weathered from sedimentary and igneous rocks. They are located on ridgetops and slopes of mountains. Only one of these soil types are considered hydric by the NRCS: Goldridge fine sandy loam, 2 to 9 percent slopes.

Land Cover

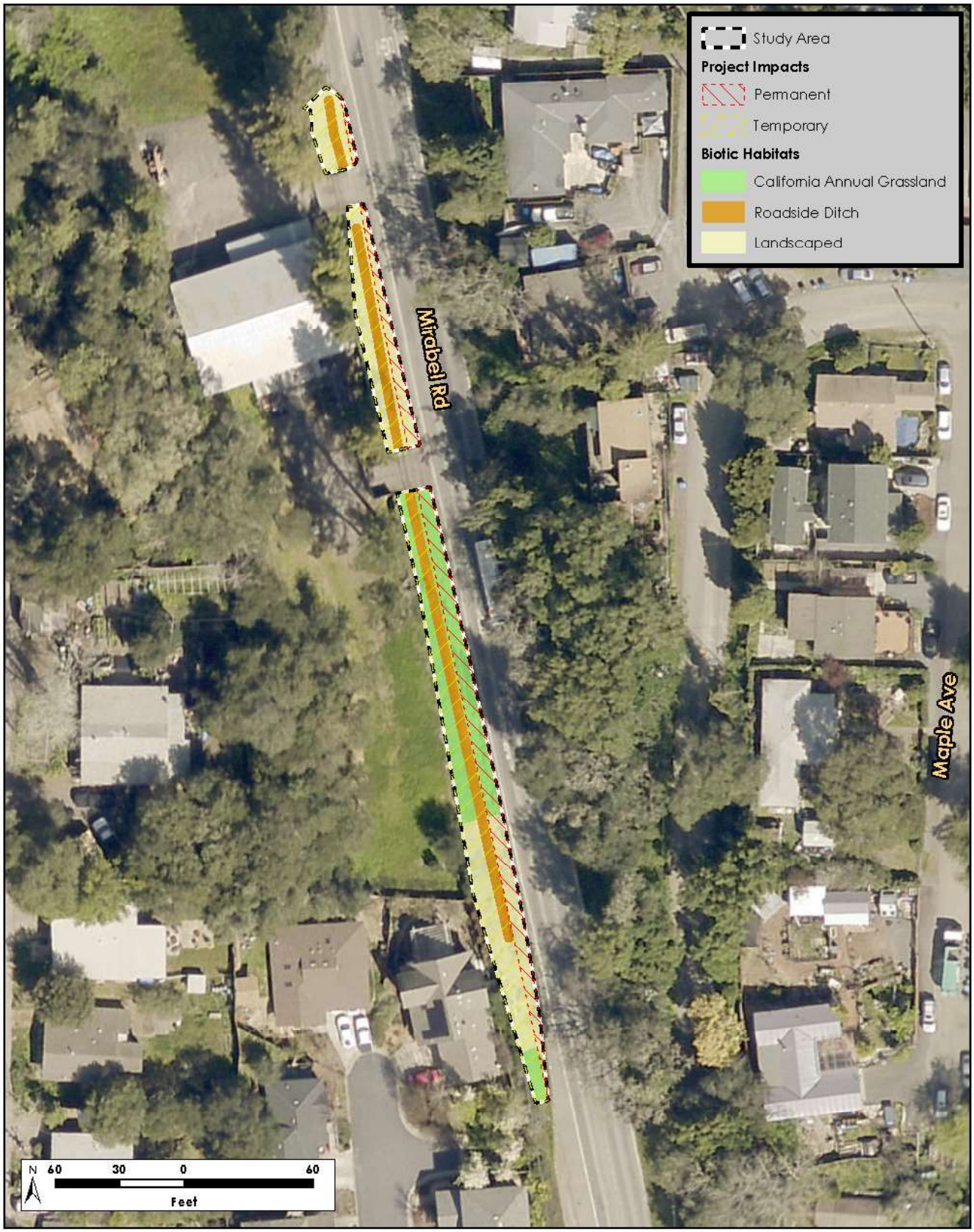
As described above, biotic habitats along the proposed project alignment were identified according to the land cover classification system described in the Sonoma Vegetation Mapping Program but were field verified to accurately convey habitat types and distributions in the project area. The reconnaissance-level survey identified 10 land cover types along the proposed project alignment: (1) California annual grassland, (2) landscaped, (3) developed, (4) oak woodland, (5) roadside ditch, (6) forested wetland, (7) seasonal wetland, (8) mixed riparian, (9) perennial emergent wetland, and (10) intermittent stream (**Figure 4-1** to **Figure 4-12**). The results of the Appendix C delineation are summarized below in **Table 4-6**. These land cover types are described in detail below.

Table 4-6: Potential Jurisdictional Waters and Wetlands within the Delineation Study Area

Habitat Type	Acres
Total Potential Waters of the U.S.	**0.017**
Seasonal Wetland	0.015
Perennial Emergent Wetland	0.001
Intermittent Stream	0.001
Culverts	0.004
Waters Expected to be Disclaimed under Section 404 due to Lack of Continuous Surface Connection[1]	**0.054**
Isolated Seasonal Wetland	0.014
Isolated Forested Wetland	0.040
Total Waters of the State	**0.080**
Seasonal Wetland	0.029
Forested Wetland	0.040
Perennial Emergent Wetland	0.001
Intermittent Stream	0.001
Mixed Riparian	0.009
Culverts	0.004
Total CDFW Jurisdictional Habitats	**0.010**
Mixed Riparian	0.009
Intermittent Stream	0.001
Culverts	**<0.001**
Total Non-jurisdictional Areas[2]	**2.559**
Wetland Delineation Study Area Total	**2.638**

Notes: 1 Waters expected to be disclaimed under Section 404 are included under the totals for waters of the state
2 Non-jurisdictional areas were mapped as California annual grassland, developed, landscaped, oak woodland, non- jurisdictional culverts, and roadside ditches.

Source: H.T. Harvey, 2025



Biotic Habitat (1 of 12) Figure **4-1**

Source: H.T. Harvey, 2025

Biotic Habitat (2 of 12) Figure **4-2**

Source: H.T. Harvey, 2025

Biotic Habitat (3 of 12) Figure **4-3**

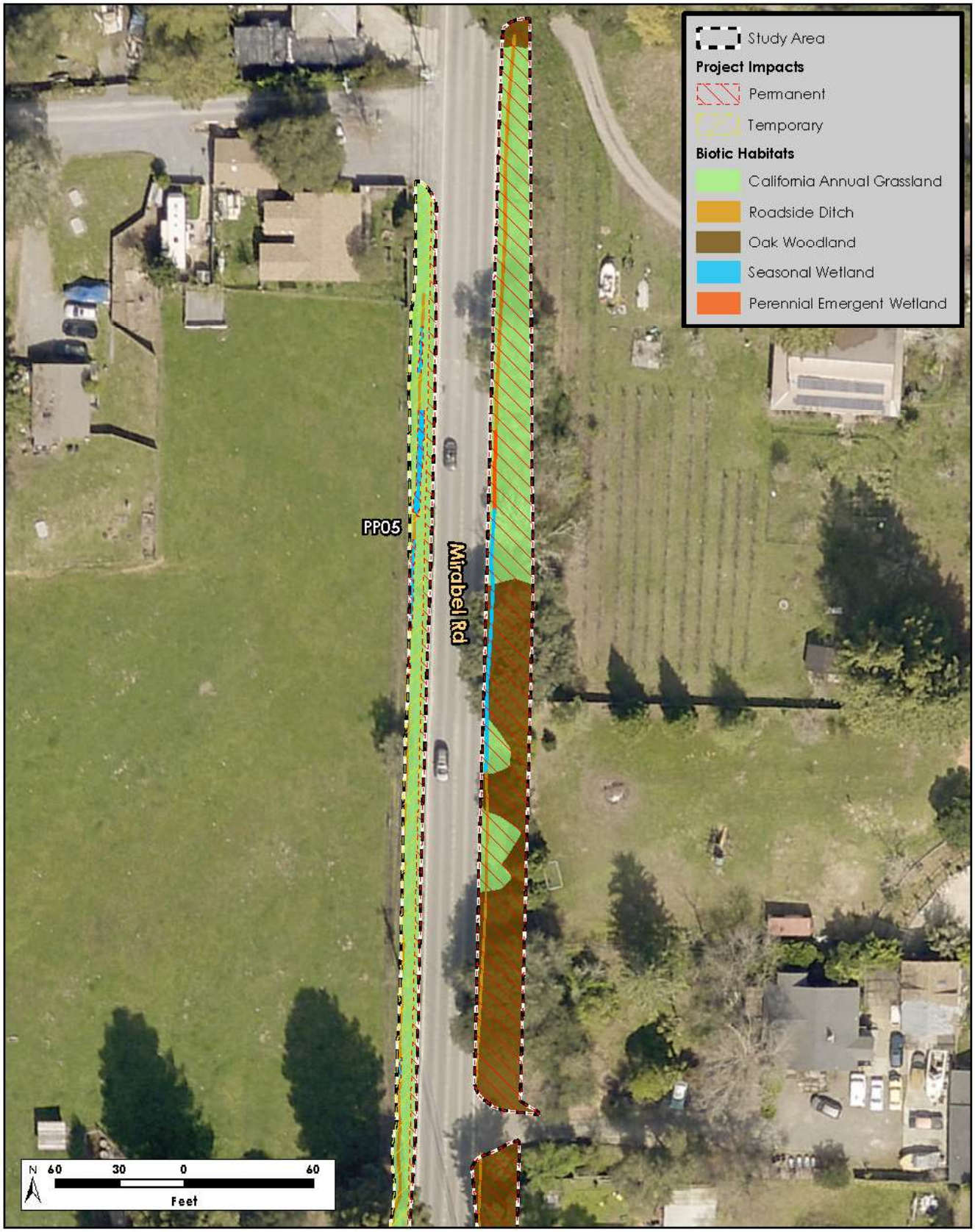
Source: H.T. Harvey, 2025

Biotic Habitat (4 of 12) Figure **4-4**

Source: H.T. Harvey, 2025

Biotic Habitat (5 of 12) Figure **4-5**

Source: H.T. Harvey, 2025

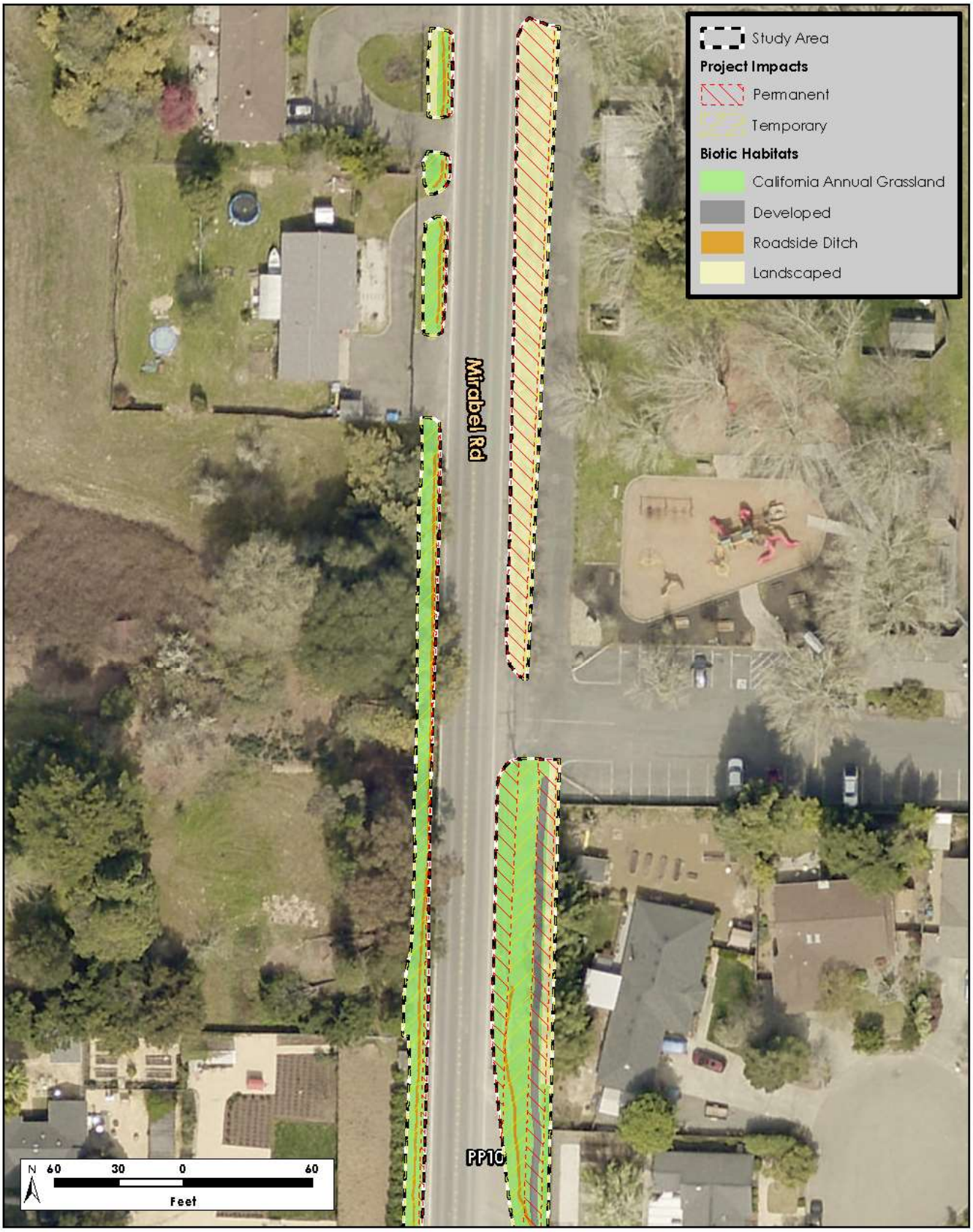


Biotic Habitat (6 of 12) Figure **4-6**

Source: H.T. Harvey, 2025

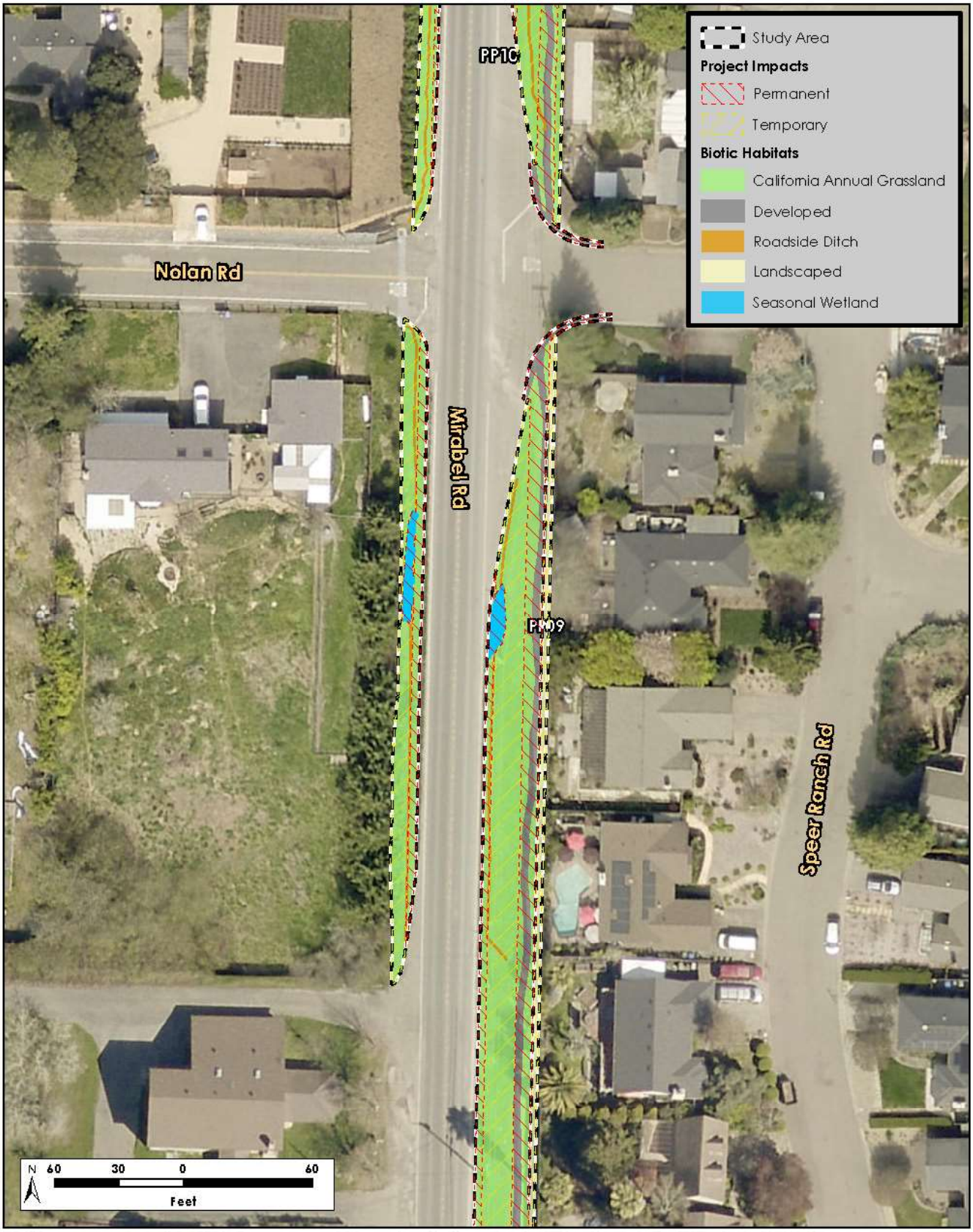
Biotic Habitat (7 of 12) Figure **4-7**

Source: H.T. Harvey, 2025



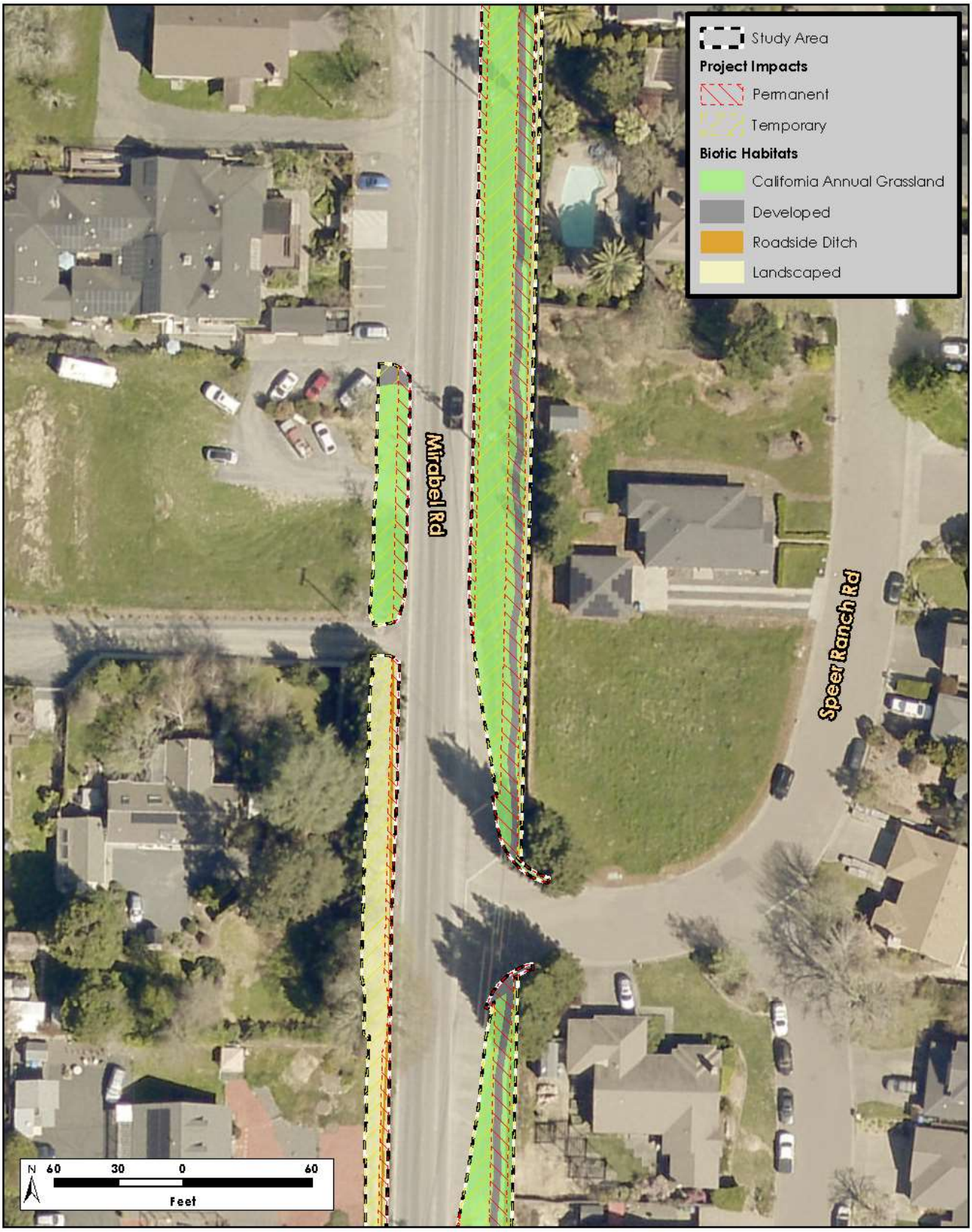
Biotic Habitat (8 of 12) Figure **4-8**

Source: H.T. Harvey, 2025



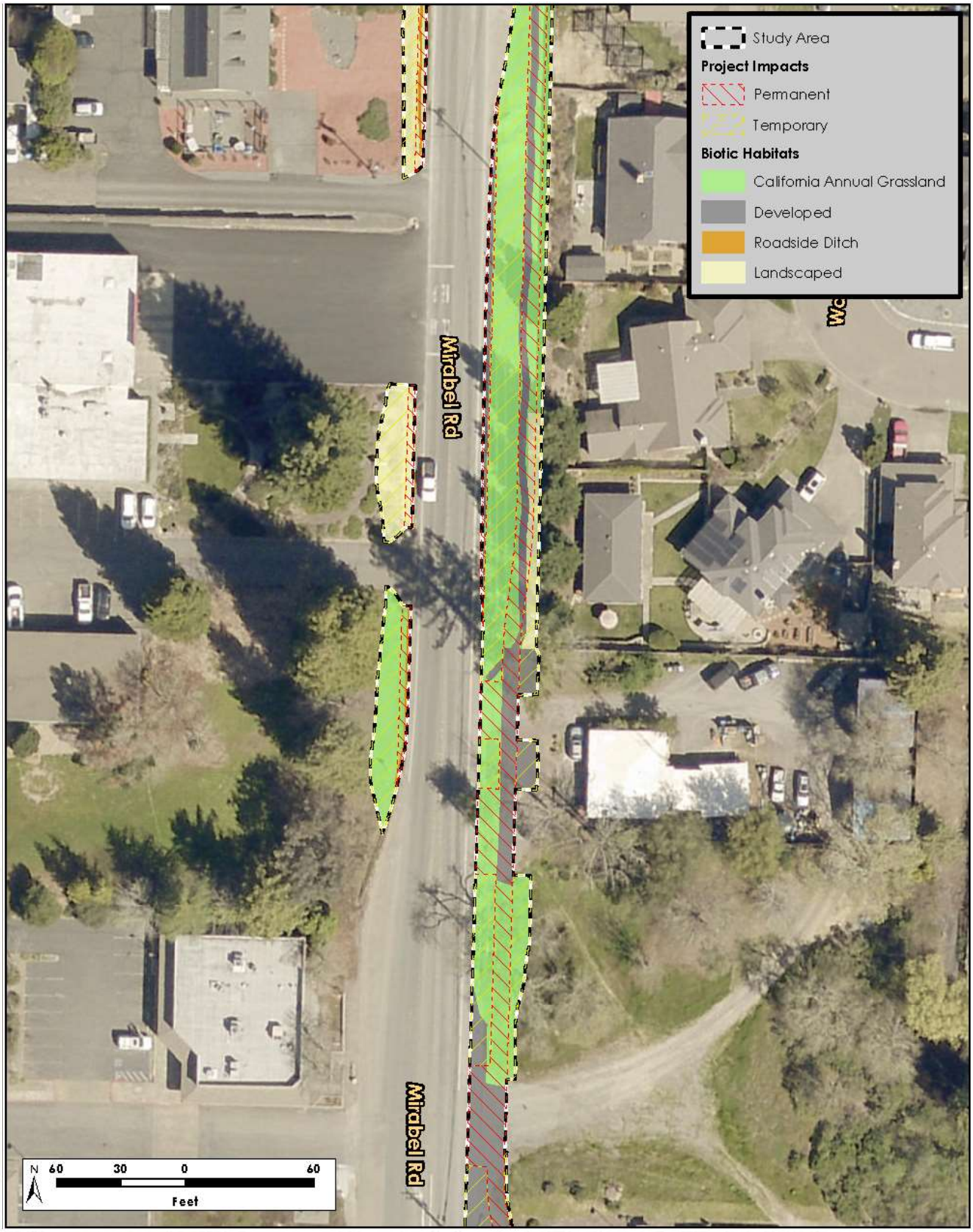
Biotic Habitat (9 of 12) Figure **4-9**

Source: H.T. Harvey, 2025



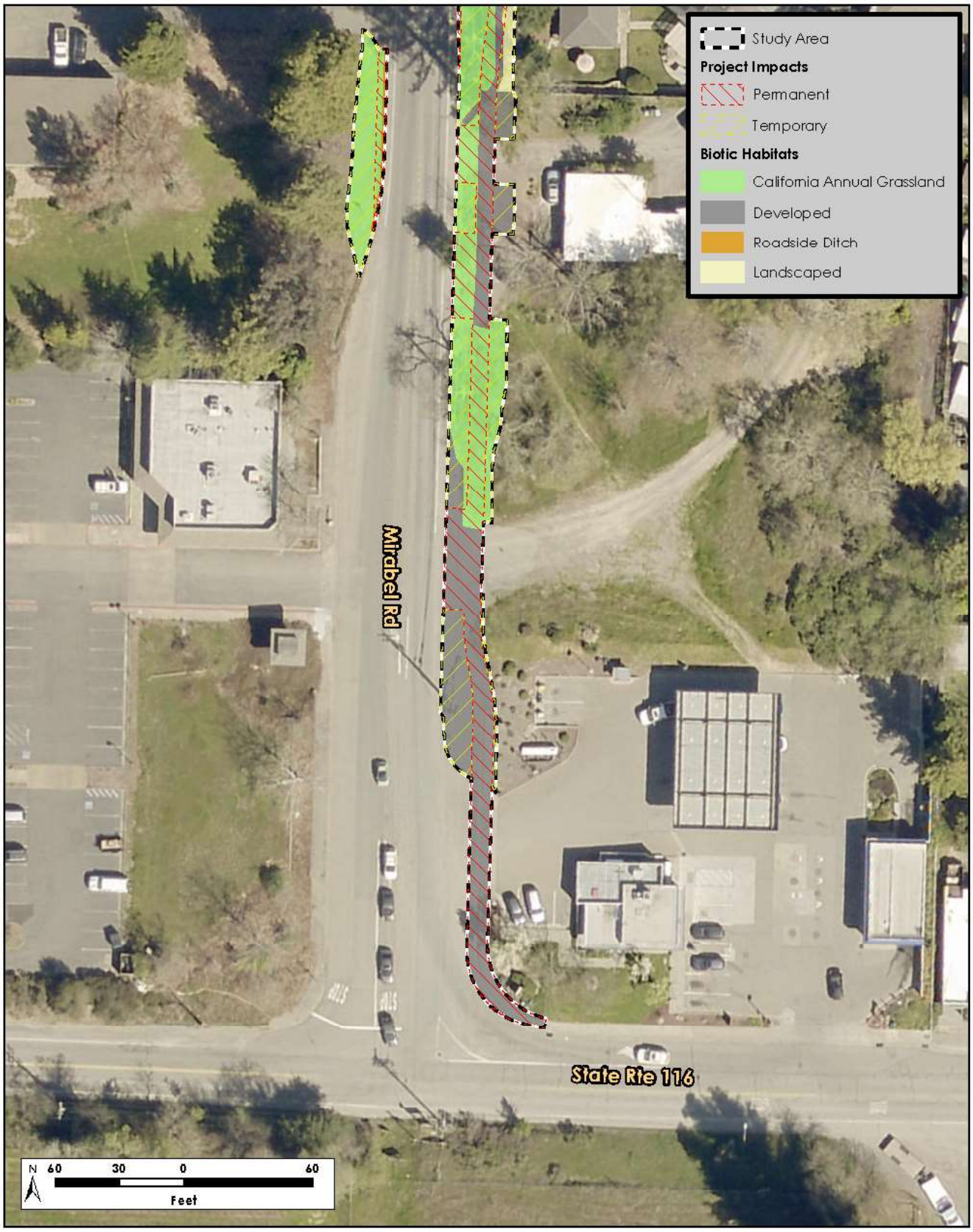
Biotic Habitat (10 of 12) Figure **4-10**

Source: H.T. Harvey, 2025



Biotic Habitat (11 of 12) Figure **4-11**

Source: H.T. Harvey, 2025



Biotic Habitat (12 of 12) Figure **4-12**

Source: H.T. Harvey, 2025

California Annual Grassland

Vegetation: California annual grassland habitat (1.56 acres) is located on either side of Mirabel Road within the project area. This habitat type, while a roadside land cover, is mostly not landscaped or planted, and is dominated by non-native grasses such as bromes (*Bromus spp.*) and wild oat (*Avena spp.*) species, non-native herbs such as prickly lettuce (*Lactuca serriola*), filarees (*Erodium moschatum, E. botrys*), geraniums (*Geranium mole, G. robusta*), summer mustard (*Hirschfeldia incana*), and wild radish (*Raphanus sativus*). Scattered patches of Himalayan blackberry (*Rubus armeniacus*) also grow within this biotic habitat. The California annual grassland appears to be both regularly and frequently mowed, presumably by city maintenance.

Wildlife: Some of the California annual grassland in the project area is located between the road and pedestrian pathway pavement; due to the limited extent of such habitats and heavy human disturbance (i.e., mowing), such ruderal areas have limited wildlife habitat value. Where more extensive ruderal grasslands are present further from high human activity, these habitats are used as foraging, burrowing, and nesting locations by moderate numbers of species. California annual grassland habitat in the study area is used by reptiles and amphibians such as the western fence lizard (*Sceloporus occidentalis*) and southern alligator lizard (*Elgaria multicarinata*), that feed on invertebrates found within and beneath debris in the vegetation. Insect-eating birds, such as the California scrub-jay (*Aphelocoma californica*), western bluebird (*Sialia mexicana*), and western kingbird (*Tyrannus verticalis*), also use this habitat for foraging. Other bird species such as the mourning dove (*Zenaida macroura*), western meadowlark (*Sturnella neglecta*), and lesser goldfinch (*Spinus psaltria*) forage on the seed crop this community provides. The ruderal vegetation and scattered shrubs provide nesting habitat for several common nesting bird species. Mammal species, such as the deer mouse (*Peromyscus maniculatus*), California ground squirrel (*Otospermophilus beecheyi*), and striped skunk (*Mephitis mephitis*) forage within these grasslands. These species, in turn, attract predators such as the gopher snake (*Pituophis catenifer*), various raptors, and coyote (*Canis latrans*).

Landscaped

Vegetation: The majority of the project area is located adjacent to private residential properties with landscaped yards or a public park. In some cases, these intentionally planted areas extend into the roadside areas of the project area. Areas mapped as landscaped (0.36 acre) have been planted with ornamental trees, shrubs, and groundcovers common to the region, including privet (*Ligustrum sp.*), acacia (*Acacia spp.*), ornamental rose (*Rosa sp.*), and greater periwinkle (*Vinca major*).

Wildlife: The landscaped areas within the project area serve as wildlife habitat only in a very limited capacity, and most wildlife species that occur in these areas are tolerant of frequent human disturbances. Species that use these areas include the nonnative European starling (*Sturnus vulgaris*), rock pigeon (*Columba livia*), house mouse (*Mus musculus*), and Norway rat (*Rattus norvegicus*), as well as the native raccoon (*Procyon lotor*) and striped skunk. A variety of birds, including the Anna's hummingbird (*Calypte anna*), California towhee (*Melozone crissalis*), bushtit (*Psaltriparus minimus*), chestnut-backed chickadee (*Poecile rufescens*), and house finch (*Haemorhous mexicanus*) will nest and forage in landscape vegetation. Additionally, large nonnative trees adjacent to the project area provide potential nesting sites for raptors, such as Cooper's hawks (*Accipiter cooperii*), although no old, existing nests of raptors were observed within or adjacent to the project area during the focused survey. Although some trees near the project area provide cavities or bark crevices that could support small

numbers of roosting bats, no features that provide high-quality or expansive roost sites are present, and therefore no large bat colonies are present in trees in areas where bats could potentially be impacted.

Developed

Vegetation. Developed areas (0.29 acre) are comprised of the paved Mirabel Road that runs through the project area, cross-streets, driveways, and paved pedestrian pathways adjacent to Mirabel Road. Developed land cover types within the project area are minimal and on the margins of the various impact areas. They are typically devoid of vegetation.

Wildlife. Developed areas generally provide very little wildlife habitat value, and the wildlife most often associated with developed areas are those that are tolerant of periodic human disturbances, including introduced species such as the European starling, rock pigeon, Norway rat, and black rat (*Rattus rattus*). Several common, native species are also able to utilize these habitats, including the western fence lizard, striped skunk, and a variety of birds, such as the American crow (*Corvus brachyrhynchos*), Anna's hummingbird, California towhee, mourning dove, killdeer (*Charadrius vociferus*), and Brewer's blackbird (*Euphagus cyanocephalus*). Reptiles such as western fence lizards and gopher snakes may bask on road or parking lot surfaces to raise their body temperature. In addition, human-made structures associated with developed areas are often attractive to nesting or roosting birds and bats. Eaves and corners of buildings provide attractive nesting sites for black phoebes (*Sayornis nigricans*). Although some buildings near the project area could potentially support small numbers of roosting bats, no high-quality or expansive roost sites are present in these buildings, and therefore no large bat colonies are present in buildings where bats could potentially be impacted.

Oak Woodland

Vegetation: Oak woodland habitat (0.25 acre) is located in scattered areas alongside Mirabel Road within the project area. Oak woodland habitat is predominantly comprised of coast live oak (*Quercus agrifolia*) and an occasional valley oak (*Q. lobata*). The understory is generally comprised of wild non-native annual grasses such as brome and wild oat species, ornamental plants, or paved and gravel areas.

Wildlife: Woodlands dominated by oaks typically support diverse animal communities in California. Coast live oaks provide cavities, bark crevices, and complex branching growth that create shelter for wildlife species, and these trees produce mast crops that are an important food source for many birds and mammals. However, the coast live oak woodland habitat within the project area is limited in extent and surrounded by development. As a result, this habitat provides fewer structural resources and foraging opportunities for wildlife species compared to more natural and/or more extensive oak woodlands in the region.

Birds such as the white-breasted nuthatch (*Sitta carolinensis*), California scrub-jay, Bewick's wren (*Thryomanes bewickii*), chestnut-backed chickadee, acorn woodpecker (*Melanerpes formicivorus*), California quail (*Callipepla californica*), and oak titmouse (*Baeolophus inornatus*) may nest and forage in oaks within the project area. Other birds expected to use this habitat are the wintering ruby-crowned kinglet (*Regulus calendula*) and Townsend's warbler (*Setophaga townsendi*). Raptors such as the red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), and Cooper's hawk may forage for prey in this woodland. No active or inactive raptor nests were detected during the site visit, suggesting that raptors have not nested on the site in recent years.

Because the oak woodland habitat on the site lacks understory cover and vegetation, amphibian and reptile species that are typically associated with dense leaf cover and coarse woody debris in wooded habitats are not expected to occur here. Reptiles associated with the adjacent grassland habitat, such as the western fence lizard and gopher snake, may forage in the mown understories. Mammals such as the striped skunk and coyote, as well as the nonnative Virginia opossum (*Didelphis virginiana*) and feral cat (*Felis catus*) are also expected to forage in this habitat. No cavities or crevices were observed in oaks on the site that provide high-quality roosting habitat for bats.

Roadside Ditch

Vegetation: The roadside ditches (0.10 acre) within the project area are excavated in uplands and generally contain the same community of plants found within the California annual grassland biotic habitat described above. They range from 0.5 to 4 feet deep and appear to convey storm runoff from Mirabel Road and adjacent driveways and sidewalks. Some of the ditches contained an ordinary high water mark with distinct bed and bank, change in vegetation, and evidence of recent storm flow (i.e., bent grass stems and wrack). Many of the ditches were flowing at the time of the site visit from recent storms and some had ponded long enough to support wetland vegetation, hydric soils, and wetland hydrology. Those wetlands are scattered within ditches through the project area and are described below.

Wildlife: The roadside ditches in the project area provide habitat that is of limited value to wildlife due to their structural simplicity, steep walls that prevent small wildlife access, regularly mowed vegetation (i.e., short stature with only one canopy layer), periodic human disturbance, position within the road corridor, and low levels of flowing water in the dry season. However, wildlife species that utilize the surrounding annual grassland, riparian, and wetland habitats may be found opportunistically using these ditches. Reptiles such as gopher snake and western fence lizard may bask on the concrete surfaces, and birds, such as the black phoebe, Bewick's wren, and California towhee may forage in the widely dispersed vegetation. Killdeer may nest in the dry substrate of gravel-lined ditches. If water is present, mammals such as the coyote and striped skunk may opportunistically drink from this source.

Forested Wetland

Vegetation: The forested wetland (0.04 acre) within the project area is rooted outside and several feet above an adjacent roadside ditch on a terrace at a low point on sloped private property. The forested wetland was dominated by large established willow (*Salix sp.*) trees with an understory of Himalayan blackberry.

Wildlife: Normally, the presence of forested wetlands on a project site would provide habitat for a diverse suite of wetland-associated wildlife species. However, the relatively small size of the forested wetland in the project area precludes many wetland and aquatic wildlife species from using these features. Thus, waterbirds such as gulls and terns are not expected to occur. Similarly, passerine birds associated with more extensive wetlands, such as the marsh wren (*Cistothorus palustris*), are not expected to occur here. Nevertheless, more urban-adapted wetland-associated birds such as the red-winged blackbird (*Agelaius phoeniceus*) and song sparrow (*Melospiza melodia*) may be present. Amphibians such as the native Sierran chorus frog (*Pseudacris sierra*) and western toad (*Anaxyrus boreas*) may breed here and terrestrial species that occur in adjacent habitats, such as house finches, bushtits, yellow-rumped warblers (*Setophaga coronata*), black phoebes, white-crowned sparrows

(*Zonotrychia leucophrys*), and golden-crowned sparrows (*Zonotrichia atricapilla*), will forage occasionally in the vegetation.

Seasonal Wetlands

Vegetation: The seasonal wetlands (0.03 acre) within the project area are located within the roadside ditches along Mirabel Road. The seasonal wetlands generally contain flowing water, but some only remain saturated and were observed to have no surface water at all during surveys. The seasonal wetlands were either dominated by a single herbaceous wetland species such as watercress (*Nasturtium officinale*) or a mix of wetland species including Himalayan blackberry, Italian rye grass (*Festuca perennis*), tall cyperus (*Cyperus eragrostis*), various rush species (*Juncus spp.*), and common velvet grass (*Holcus lanatus*). The wetlands are situated in low depressions within the ditches where soil saturation or ponding occurs for time periods long enough to support wetland vegetation and hydric soils.

Wildlife: The seasonal wetlands in the project area provide only minimal quality habitat for most wildlife species due to their limited extent, and wildlife diversity is expected to be low. Many of the same animal species described in the California annual grassland and forested wetland habitats above may forage in the seasonal wetlands. Birds such as the black phoebe, western bluebird, white-crowned sparrow, and golden-crowned sparrow may forage there, and amphibians such as the native Sierran chorus frog and western toad may also be present in this habitat during wet times of the year.

Mixed Riparian

Vegetation: Mixed riparian habitat (0.01 acre) was mapped on the banks and adjacent areas on either side of the intermittent stream in the project area. The mixed riparian habitat primarily includes vegetation located above ordinary high water and below top of bank of the stream, and trees that are dependent on the stream near the top of bank. The intermittent stream at the eastern side of Mirabel Road included dense thickets of willows. The understory was not accessible as it was on private property. The intermittent stream on the east side of Mirabel Road contained a single coast live oak, Himalayan blackberry thickets, and greater periwinkle.

Wildlife: Due to its small size and isolation, wildlife diversity in the mixed riparian habitat is generally low. However, the dense foliage provided by the willow stand, Himalayan blackberry, and the young coast live oak are likely to support several species of nesting birds and provide cover and foraging habitat for others. Bird species that may forage in this habitat include Bewick's wren, northern mockingbird (*Mimus polyglottos*), California quail, California scrub-jay, and the yellow-rumped warbler. Amphibians such as the native Sierran chorus frog and western toad may also be present in this habitat.

Perennial Emergent Wetland

Vegetation: A single perennial emergent wetland (0.001 acre) was mapped. This wetland is similar in vegetation composition and soil type to the seasonal wetlands. However, the water was deeper than the seasonal wetlands. The perennial emergent wetland appears to be situated in a deeper depression relative to the adjacent seasonal wetlands. The soils in this freshwater wetland remain saturated for a period long enough, or is inundated regularly enough, to support a stand of cattails (*Typha sp.*) and willow saplings.

Wildlife: Similar to the forested wetlands mentioned above, many waterbirds such as gulls and terns are not expected to occur due to the relatively small size of the perennial emergent wetlands in the project area. However, more urban-adapted ducks such as the mallard (*Anas platyrhynchos*) may use the

perennial emergent wetlands for foraging and nesting due to the deeper water that is present. Similarly, birds associated with more extensive wetlands, such as the marsh wren, are not expected to occur, but other urban-adapted wetland-associated birds such as the red-winged blackbird and song sparrow may occur. Amphibians such as the native Sierran chorus frog and western toad may also forage and breed here.

Intermittent Stream

Vegetation: The intermittent stream (0.001 acre) on site is an unnamed tributary of a larger system that flows to the northwest towards the Russian River. Areas mapped as intermittent stream are in the bed of this small stream within the ordinary high water marks. The portion of the intermittent stream closest to Mirabel Road is concrete lined, as the stream is box-culverted under Mirabel Road. The west terminus of the box culvert contains a small amount of accumulated sediment on concrete that supports one non-native water plantain (*Alisma lanceolatum*). Outside the concrete-lined area, the bottom of the stream is dominated by willow species, Himalayan blackberry, or non-native annual grasses. It flows from east to west with clear water about six inches to one foot deep.

Wildlife: While the intermittent stream in the project area flows into the Russian River to the northwest, the lack of large persistent flows and deep pools precludes the presence of fishes. Birds in adjacent habitats such mallards, California scrub-jays, and black phoebes may forage in this area. During the brief periods when the stream contains water, amphibians such as the Sierran chorus frog and western toad are expected to occur here.

Wildlife Movement

Wildlife movement inside and within the vicinity of the project area takes many forms, and is different for the various suites of species associated with these lands. Bird and bat species move readily over the landscape in the project vicinity, foraging over and within both natural lands and landscaped areas. Mammals of different species move within their home ranges, but also disperse between patches of habitat. Generally, reptiles and amphibians similarly settle within home ranges, sometimes moving to central breeding areas, upland refugia, or hibernacula in a predictable manner, but also dispersing to new areas. Some species, especially among the birds and bats, are migratory, moving into or through the proposed project vicinity during specific seasons. Aside from bats, there are no other mammal species in the vicinity of the site that are truly migratory. However, the young of many mammal species disperse from their natal home ranges, sometimes moving over relatively long distances in search of new areas in which to establish.

Movement corridors are segments of habitat that provide linkage for wildlife through the mosaic of suitable and unsuitable habitat types found within a landscape while also providing cover. On a broader level, corridors also function as paths along which wide-ranging animals can travel, populations can move in response to environmental changes and natural disasters, and genetic interchange can occur. In California, environmental corridors often consist of riparian areas along streams, rivers, or other natural features.

Due to the development surrounding the project area, well-defined movement corridors for mammals or reptiles are not present. Wildlife species may move through the area using cover and refugia as they find them available, but houses, roads, and fences prevent large-scale movement between habitat fragments. Most dispersal by wildlife species in the region likely occurs along higher-quality habitats, such as the Russian River corridor north of the project area.

The Russian River and its associated riparian corridor serve as a movement corridor for several common and special-status species of birds, fish, mammals, reptiles, and amphibians in the project vicinity. In addition, several birds, mammals, reptiles, and amphibians utilize the riparian corridor of the Russian River for movement purposes, as it provides sufficient vegetative cover preferred by these species when navigating across the landscape. Specifically, migratory passerines, coyotes, striped skunks, raccoons, Sierran chorus frogs, and alligator lizards, amongst other species, are expected to move along this corridor.

In summary, the majority of the project area is not a particularly important for movement by non-flying wildlife, and it does not contain any high-quality corridors allowing dispersal of such animals through the project area. However, the Russian River north of the site provides a higher-quality corridor for wildlife species to disperse.

Special-Status Species and Sensitive Habitats

CEQA requires assessment of the effects of a project on species that are protected by state, federal, or local governments as "threatened, rare, or endangered;" such species are typically described as "special-status species." For the purpose of the environmental review of the proposed project, special-status species have been defined as described below. Impacts on these species are regulated by some of the federal, state, and local laws and ordinances described above.

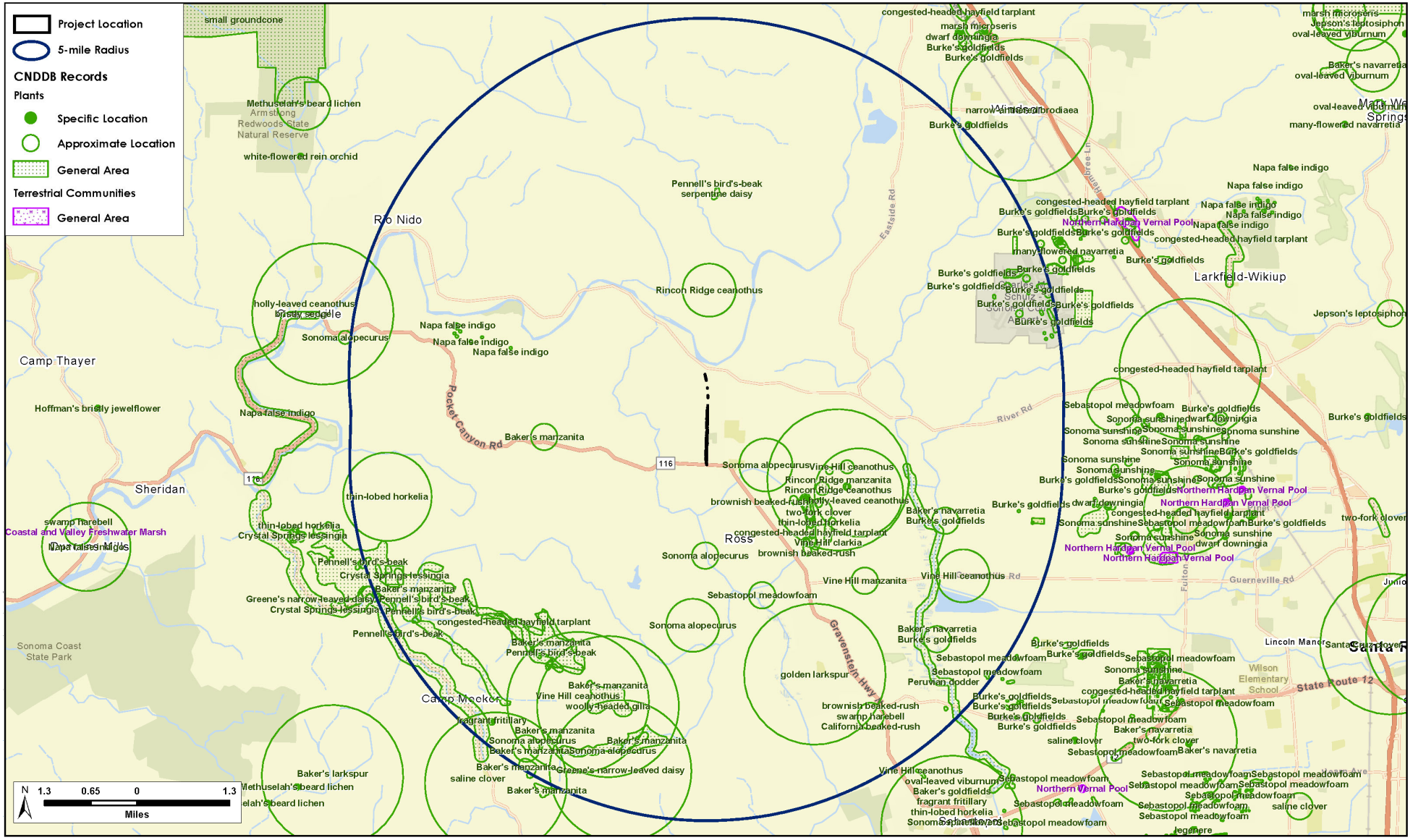
For purposes of this analysis, "special-status" plants are considered plant species that meet at least one of the following criteria:

- Listed under the FESA as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under the CESA as threatened, endangered, rare, or a candidate species.
- Listed by the California Native Plant Society as California Rare Plant Rank 1A, 1B, 2, 3, or 4.

For purposes of this analysis, "special-status" animals are considered animal species that meet at least one of the following criteria:

- Listed under FESA as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under CESA as threatened, endangered, or a candidate threatened or endangered species.
- Designated by CDFW as a California species of special concern.
- Listed in the California Fish and Game Code as fully protected species (fully protected birds are provided in Section 3511, mammals in Section 4700, reptiles and amphibians in Section 5050, and fish in Section 5515).

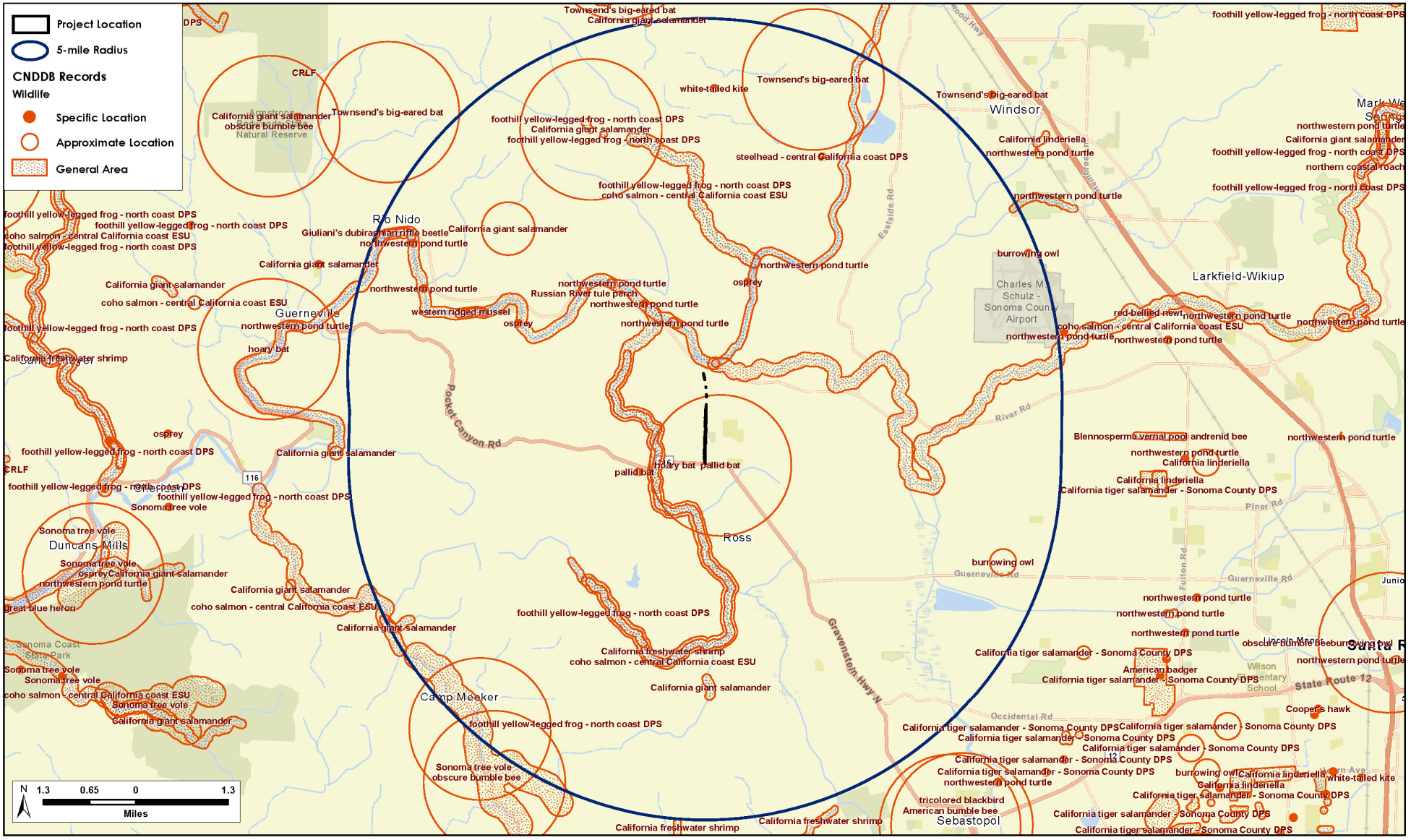
Figure 4-13 depicts California Natural Diversity Database (CNDDB) records of special-status plant species in the general vicinity of the project area and **Figure 4-14** depicts CNDDB records of special-status animal species. These generalized maps show areas where special-status species are known to occur or have occurred historically.



CNDDB-Mapped Records of Special-Status Plants

Figure 4-13

Source: H.T. Harvey, 2025



CNDDB-Mapped Records of Special-Status Animals Figure **4-14**

Source: H.T. Harvey, 2025

Special-Status Plant Species

The California Native Plant Society and CNDDB identify 122 special-status plant species with California Rare Plant Rank 1-4 as potentially occurring in at least one of the 9 USGS 7.5-minute quadrangles (Healdsburg, Two Rock, Camp Meeker, Bodega Head, Valley Ford, Duncan Mills, Cazadero, Guerneville, and Sebastopol) containing or surrounding the project area. However, the site is dominated by low-quality, heavily disturbed habitat, which precludes the presence of special-status plant species that occur in more natural habitats in the region. All of the special-status plant species identified as potentially occurring in the region were determined to be absent from the project area for at least one of the following reasons: (1) absence of suitable habitat types or high level of disturbance within the project area; (2) lack of specific microhabitat or edaphic requirements, such as serpentine soils; (3) the elevation range of the species is outside of the range within the project area; and/or (4) the species is considered extirpated from the project area.

Special-Status Animal Species

The legal status and likelihood of occurrence along the project area of special-status animal species known to occur, or potentially occurring, in the surrounding region are presented in **Table 4-7**. Most of the special-status species listed in **Table 4-7** are not expected to occur along the project area because it lacks suitable habitat, is outside the known range of the species, and/or is isolated from the nearest known extant populations by development or otherwise unsuitable habitat.

The following special-status species that are present in less urbanized settings in Sonoma County, or in specialized habitats in Sonoma County, are absent from the project area due to a lack of suitable habitat and/or isolation of the site from populations by urbanization: Crotch's bumble bee (*Bombus crotchii*), western bumble bee (*Bombus occidentalis*), California tiger salamander (*Ambystoma californiense*), foothill yellow-legged frog (*Rana boylii*), tricolored blackbird (*Agelaius tricolor*), Swainson's hawk (*Buteo swainsoni*), bald eagle (Haliaeetus leucocephalus), burrowing owl (*Athene cunicularia*), loggerhead shrike (*Lanius ludovicianus*), American badger (*Taxidea taxus*), and golden eagle (*Aquila chrysaetos*). While some of the birds in this list likely fly over the project area at times, none are expected to nest in, or make regular/heavy use of, any resources within the project area.

The Central California Coast Coho salmon (*Oncorhynchus kisutch*), Central California Coast steelhead (*Oncorhynchus mykiss*), and Pacific lamprey (*Entosphenus tridentatus*) occur in the Russian River north of the project area. However, no suitable habitat for these species is present on or immediately adjacent to the project area.

The monarch butterfly (*Danaus plexippus*), yellow warbler (*Setophaga petechia*), and white-tailed kite (*Elanus leucurus*) can occasionally occur along the project area as nonbreeding foragers (i.e., they do not breed along the project area). The pallid bat (*Antrozous pallidus*) and Townsend's big-eared bat (*Corynorhinus townsendii*), California species of special concern, may also forage aerially over habitats along the project area, and the mountain lion (*Puma concolor*), a California state candidate, can potentially disperse or forage within the project area. These species are not expected to roost or breed in or immediately adjacent to the project area, and if they occur at all, they would occur irregularly and in low numbers. No high-quality habitat is present in the project area for the California red-legged frog (*Rana draytonii*), California giant salamander (*Dicamptodon ensatus*), or northwestern pond turtle (*Actinemys marmorata*), and if these species occur in the project area, they do so only very infrequently and in low numbers.

Table 4-7: Special-status Animal Species, Their Status, and Potential Occurrence within the Project Area

Name	Status	Habitat	Potential for Occurrence within the Project Area
Federal or State Endangered, Threatened, or Candidate Species			
Monarch butterfly (*Danaus plexippus*)	FC	Requires milkweeds (*Asclepias* spp.) for egg-laying and larval development, but adults obtain nectar from a wide variety of flowering plants in many habitats. Individuals congregate in winter roosts, primarily in Mexico and in widely scattered locations on the central and southern California coast.	Absent as Breeder. The monarch butterfly occurs along the project area primarily as a migrant. Although small numbers of individuals may breed and forage in the vicinity year-round, no milkweed was observed in the project area, so the species is not expected to breed in the proposed project footprint. There are no known current or historic overwintering sites or suitable groves of trees for wintering in the area.
California freshwater shrimp (*Syncaris pacifica*)	FE	Low elevation freshwater streams with undercut banks that contain submerged vegetation, roots, or debris for shelter.	Absent. The California freshwater shrimp is known to occur in Green Valley Creek to the west which leads to the Russian River, but it would not occur on the project area as there are no high-quality, structurally diverse undercut banks in the roadside ditches. While there is water and occasional pools in the ditches, there were no strong flows that connect with the Russian River, resulting in stagnant water.
Crotch's bumble bee (*Bombus crotchii*)	SC	Open grassland and scrub habitats.	Absent. Although the species was historically found throughout the southern two-thirds of California, including the proposed project vicinity, it is not expected to occur on the site due to recent range contractions.
Western bumble bee (*Bombus occidentalis*)	SC	Meadows and grasslands with abundant floral resources.	Absent. Although the species was historically found throughout much of central and northern California, including the proposed project vicinity, it is not expected to occur on the site due to recent range contractions.
Central California Coast Coho Salmon (*Oncorhynchus kisutch*)	FE	Typically spawns in low gradient reaches of tributary streams and small coastal streams. Eventually migrate to saltwater bodies to forage and mature before returning to freshwater coastal streams and large rivers.	Absent. Coho salmon are known to occur in the Russian River downstream, but there is no suitable habitat for Coho salmon in the project area. Low water levels in ditches and the intermittent stream, and lack of connectivity preclude access to the project area.
Central California Coast steelhead	FT	Typically spawns in gravel substrates in clear, cool, perennial sections of relatively undisturbed	Absent. Steelhead are known to occur in the Russian River downstream, but there is no suitable habitat for steelhead in the

Name	Status	Habitat	Potential for Occurrence within the Project Area
(*Oncorhynchus mykiss*)		streams with conditions allowing migration between spawning and marine habitats and dense canopy cover that provides shade, woody debris, and organic matter. Usually cannot survive long in pools or streams with water temperatures above 70°F; however, they can use warmer habitats if adequate food is available.	project area. Low water levels in ditches and the intermittent stream, and lack of connectivity preclude access to the project area.
California tiger salamander (*Ambystoma californiense*)	FT, ST, VHP	Preferred breeding habitat consists of temporarily (a minimum of 3–4 months) ponded environments (e.g., vernal pools, ephemeral pools, or human-made ponds) surrounded by grasslands or open woodlands where small mammal burrows are present. Will also utilize permanent ponds if aquatic vertebrate predators are not present. Suitable ponds provide breeding and larval habitat, while burrows of small mammals such as California ground squirrels and Botta's pocket gophers in upland habitats provide refugia for juvenile and adult salamanders during the dry season.	Absent. The project area is just outside the species' range and no suitable habitat is present on site. The closest known occurrences of California tiger salamander are in pools approximately 6 miles to the southeast of the project area in Sebastopol.
California red-legged frog (*Rana draytonii*)	FT, CSSC, VHP	Inhabit perennial freshwater pools, streams, and ponds throughout the Central California Coast Range as well as isolated portions of the western slopes of the Sierra Nevada. Preferred breeding habitat consists of deep perennial pools with emergent vegetation for attaching egg clusters, as well as shallow benches to act as nurseries for juveniles. Nonbreeding frogs may be found adjacent to streams and ponds in grasslands and woodlands, and may travel up to 2 miles from their breeding locations across a variety of upland habitats.	May be Present. The project area is located at the extreme northern edge of this species' range and no suitable breeding habitat is present in or adjacent to the site. This species is likely no longer present in this area, and the closest known occurrence of this species is located approximately 7.8 miles to the northwest in small ponds at a former naval weapons station. Nevertheless, the Russian River provides a potential avenue for dispersal for red-legged frogs to the project area, and occasional dispersants cannot be ruled out. However, such individuals would occur very infrequently and in low numbers, if at all.
Foothill yellow-legged frog	SC, VHP	Found in or near rocky streams in a variety of habitats, including valley-foothill hardwood,	Absent. The nearest recorded occurrences of this species are along the Russian River less than 0.1 miles north of the project

Name	Status	Habitat	Potential for Occurrence within the Project Area
(*Rana boylii*)		valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadows. Ideal habitat for this species consists of streams with riffles and cobble-sized rocks, with slow water flow.	area. However, there is no suitable habitat present within the project area.
Tricolored blackbird (*Agelaius tricolor*)	ST, VHP	Highly colonial nester that establishes dense breeding colonies in emergent vegetation, grain fields, fallow fields, extensive thickets of blackberry, ruderal vegetation such as mustard or thistle, and occasionally in early-successional riparian habitat. Nesting colonies usually are located near fresh water. Tricolored blackbirds are itinerant nesters, and because their nesting habitat is ephemeral, it is possible for this species to colonize or recolonize an area as suitable breeding habitat becomes available.	Absent. This species was known to nest in Sebastopol approximately 5 miles southeast of the alignment in the mid-1970s. However, the January 9, 2025, reconnaissance-level survey determined that no suitable nesting habitat is present along the project area or in areas within 250 feet. Individual tricolored blackbirds may occur as occasional foragers along the project area year-round, especially during winter and migration.
Swainson's hawk (*Buteo swainsoni*)	ST	Prime breeding habitat encompasses riparian draws or clumps of trees surrounded by open grassland or oak savannah for foraging.	Absent. The project area is outside this species' range and there is no suitable habitat on site. However, this species is known to occur east of the proposed project vicinity as a very infrequent transient during migration. Although nesting Swainson's hawks may be returning to the region, Swainson's hawks are not expected to nest within or adjacent to the project area due to high levels of human disturbance (e.g., roads, and residential development). This species may forage in the region when in transit through the region, albeit infrequently and in very low numbers. However, the grassland areas along the project area are too limited in extent to provide suitable foraging habitat for this species.
Bald eagle (*Haliaeetus leucocephalus*)	SE, SP	Ideal habitat is composed of remote, forested landscape with old-growth or mature trees and easy access to an extensive and diverse prey base. Forages in fresh and salt water where their prey species (fish) are abundant and diverse. Builds	Absent. No suitable nesting sites or foraging habitat for bald eagles is present along the project area. The closest suitable nesting and foraging habitat is along the Russian River to the north.

Name	Status	Habitat	Potential for Occurrence within the Project Area
		nests in tall, sturdy trees at sites that are in relatively close proximity to aquatic foraging areas and isolated from human activities.	
Mountain lion (*Puma concolor*) Southern California/Central Coast ESU	SC	Has a large home range size and occurs in a variety of habitats. Natal dens are typically located in remote, rugged terrain far from human activity. May occasionally occur in areas near human development, especially during dispersal.	Absent as Breeder. There are several documented occurrences of mountain lion individuals in the proposed project vicinity, one of which was reported as recent as January 2025. However, this species is expected to occur very infrequently along the project area owing to high levels of human activity and the impediments to dispersal posed by Mirabel Road, Highway 116, and other adjacent roads. Mountain lions are also not expected to breed in or adjacent to the project area as ideal denning sites are more remote and undeveloped areas.
California Species of Special Concern			
Pacific lamprey (*Entosphenus tridentatus*)	CSSC	Medium- and large-sized, low-gradient cold rivers and streams, with a wide range of habitats (e.g., gravel, low-gradient riffles).	Absent. This species is known to be present in the Russian River, but no suitable habitat occurs within the project area.
California giant salamander (*Dicamptodon ensatus*)	CSSC	Cool, damp forests and slow-moving streams with rocks and woody debris for egg-laying.	Absent as Breeder. California giant salamanders have been recorded within 5 miles of the project area and are present in the Russian River. This species is unlikely to occur within the project area because of low-quality habitat due to development. Nevertheless, occasional dispersants cannot be ruled out.
Northwestern pond turtle (*Actinemys marmorata*)	CSSC, VHP	Occurs in ponds, streams, and other wetland habitats in the Pacific slope drainages of California. Ponds or slack-water pools with suitable basking sites (such as logs) are an important habitat component for this species, and western pond turtles do not occur commonly along high-gradient streams. Females lay eggs in upland habitats, in clay or silty soils in unshaded (often south-facing) areas. Juveniles feed and grow in shallow aquatic habitats (often creeks) with emergent vegetation and ample invertebrate prey. Nesting habitat is	May be Present. Known to occur in the Russian River but unlikely to occur in the project area. Dispersal onto the project area would be difficult due to roads and development. Additionally, the project area does not contain any high-quality ponds or pools, further reducing the likelihood that a turtle would occur in the project area. However, it is possible that dispersing pond turtle individuals could occur on the project area occasionally.

Name	Status	Habitat	Potential for Occurrence within the Project Area
		typically found within 600 feet of aquatic habitat, but if no suitable nesting habitat can be found close by, adults may travel overland considerable distances to nest.	
Burrowing owl (*Athene cunicularia*)	CSSC, VHP	Prefers annual and perennial grasslands, typically with sparse or nonexistent tree or shrub canopies. In California, burrowing owls are found in close association with California ground squirrels; owls use the abandoned burrows of ground squirrels for shelter and nesting. The nesting season as recognized by the CDFW extends from February 1 through August 31. After nesting is completed, adult owls may remain in their nesting burrows or in nearby burrows, or they may migrate; young birds disperse across the landscape from 0.1 to 35 miles from their natal burrows.	Absent. There is no suitable habitat for burrowing owls within the project area or in adjacent areas. The closest known occurrence of burrowing owl was reported at Sonoma County Airport in 2019, approximately 4.8 miles northeast.
Loggerhead shrike (*Lanius ludovicianus*)	CSSC (nesting)	Open habitats interspersed with shrubs, trees, poles, fences, or other perches from which it can hunt. Nests are built in densely foliated shrubs or trees, often containing thorns, which offer protection from predators and on which prey items are impaled. The breeding season may begin as early as mid-February and extends through July.	Absent as Breeder. No suitable nesting habitat is present in the project area. Individual loggerhead shrikes may occur as infrequent foragers along the adjacent open habitat to the east of the project area.
Yellow warbler (*Setophaga petechia*)	CSSC (nesting)	Nests in riparian woodlands. Prefers riparian corridors with an open overstory of mature cottonwoods and sycamores, a midstory of box elder (*Acer negundo*) or willow, and a substantial shrub understory.	Absent as Breeder. The riparian habitat along the Russian River north of the project area provides suitable nesting habitat for yellow warblers. Although no suitable nesting habitat is present along the project area, nonbreeding individuals likely occur in spring and fall when they are an abundant migrant throughout the project area.
Pallid bat (*Antrozous pallidus*)	CSSC	Forages over many habitats; roosts in caves, rock outcrops, buildings, and hollow trees.	Absent as Breeder. No high-quality roosting habitat is present along the project area, and no known maternity colonies of this species are present within or adjacent to the alignment. However, pallid bats are known to occur in the proposed project

Name	Status	Habitat	Potential for Occurrence within the Project Area
			vicinity and individuals from more remote colonies could potentially forage over open habitats, or possibly roost individually (rather than in large roosts) along the project area on occasion.
Townsend's big-eared bat (*Corynorhinus townsendii*)	CSSC	Roosts in caves and mine tunnels, and occasionally in deep crevices in trees such as redwoods or in abandoned buildings, in a variety of habitats.	Absent as Breeder. No high-quality roosting habitat is present along the project area, and no known maternity colonies of this species are present within or adjacent to the alignment. However, Townsend's big-eared bats are known to occur in the proposed project vicinity and individuals from more remote colonies could potentially forage over open habitats on occasion.
American badger (*Taxidea taxus*)	CSSC	Burrows in wide open grasslands and occasionally in infrequently disked agricultural areas.	Absent. No suitable habitat for badgers is present within the project area, as all grasslands on-site are small and fragmented.
California Species of Special Concern			
Golden eagle (*Aquila chrysaetos*)	SP	Breeds on cliffs or in large trees (rarely on electrical towers), forages in open areas.	Absent as Breeder. No suitable nesting habitat for golden eagles is present along the project area. This species occurs in the vicinity as an occasional forager; however, no suitable foraging habitat for golden eagles is present in the limited open habitat along the project area.
White-tailed kite (*Elanus leucurus*)	SP	Nests in tall shrubs and trees, forages in grasslands, marshes, and ruderal habitats.	Absent as Breeder. No suitable nesting habitat is present in the project area. However, white-tailed kites have been reported in the proposed project vicinity and may occur as infrequent foragers along the open habitat adjacent to the project area.
Notes: Federally Endangered (FE); Federally Threatened (FT); Federal Candidate for Listing (FC); State Endangered (SE); State Threatened (ST); State Candidate (SC); State Fully Protected (SP); California Species of Special Concern (CSSC); Valley Habitat Plan (VHP)			
Source: H.T. Harvey, 2025			

Sensitive Natural Communities, Vegetation Alliances, and Habitats in the Plan Area

Natural communities have been considered part of the Natural Heritage Conservation triad, along with plants and animals of conservation significance, since the state inception of the Natural Heritage Program in 1979. CDFW determines the level of rarity and imperilment of vegetation types, and tracks sensitive communities in its Rarefind database. Global rankings (G) of natural communities reflect the overall condition (rarity and endangerment) of a habitat throughout its range, whereas state (S) rankings are a reflection of the condition of a habitat within California. Natural communities are defined using NatureServe's standard heritage program methodology as follows:

G1/S1: Critically Imperiled (less than 6 viable occurrences or less than 2,000 ac)

G2/S2: Imperiled (between 6 and 20 occurrences or 2,000 to 10,000 ac.)

G3/S3: Vulnerable (between 21 and 100 occurrences or 10,000 to 50,000 ac.)

G4/S4: Apparently secure (the community is apparently secure, but factors and threats exist to cause some concern.)

G5/S5: Secure (the community is demonstrably secure to ineradicable due to being common throughout the world [for global rank] or the state of California [for state rank]).

In addition to tracking sensitive natural communities, the CDFW also ranks vegetation alliances, defined by repeating patterns of plants across a landscape that reflect climate, soil, water, disturbance, and other environmental factors. If an alliance is marked G1-G3, all of the vegetation associations within it will also be of high priority. CDFW provides VegCAMP's currently accepted list of vegetation alliances and associations.

Impacts on CDFW sensitive natural communities, vegetation alliances/associations, or any such community identified in local or regional plans, policies, and regulations, must be considered and evaluated under CEQA (Title 14, Division 6, Chapter 3, Appendix G of the California Code of Regulations). Furthermore, aquatic, wetland and riparian habitats are also protected under applicable federal, state, or local regulations, and are generally subject to regulation, protection, or consideration by the U.S. Army Corps of Engineers, the RWQCB, CDFW, and/or the USFWS.

Sensitive Natural Communities

A query of sensitive habitats in the CNDDB identified six sensitive natural communities as occurring within the nine 7.5-minute USGS quadrangles containing or surrounding the project area: (1) coastal brackish marsh (Rank G2/S2.1), (2) coastal terrace prairie (Rank G2/S2.1), (3) coastal and valley freshwater Marsh (Rank G3/S2.1), (4) northern coastal salt marsh (Rank G3/S3.2), (5) northern hardpan vernal pool (Rank G3/S3.1), and (6) northern vernal pool (Rank G2/S2.1). The perennial emergent wetland mapped within the project area meets the definition of coastal and valley freshwater marsh. The remaining sensitive natural communities listed above do not occur within the project area.

Sensitive Vegetation Alliances

The wetlands within the project area are dug in uplands in non-native grassland and align most closely aligns with the common velvet grass - sweet vernal grass meadows (*Holcus lanatus - Anthoxanthum odoratum* Herbaceous Semi-Natural Alliance) or Perennial rye grass fields (*Lolium perenne* Herbaceous Semi-Natural Alliance) as described in the Manual of California Vegetation, Online Edition. These

alliances are ranked as GNA/SNA and are not considered sensitive. The forested wetland and mixed riparian habitat are dominated by willow trees, presumably Arroyo Willow Thickets (*Salix lasiolepis*) Shrubland Alliance, and ranked G4/S4 which would not be considered a sensitive vegetation alliance. The oak woodland within the project area is dominated would be classified as a *Quercus agrifolia* (Coast Live Oak Woodland) Alliance. This alliance is ranked as G5/S4 meaning that it would not be considered a sensitive vegetation alliance.

CDFW Riparian Habitat

Due to its rarity and disproportionately high habitat values and functions to wildlife, CDFW considers riparian habitat to be sensitive. As described above under Oak Woodland, the CDFW would likely claim jurisdiction over the mixed riparian forest and woodland vegetation (extend to the outer edges of riparian tree canopies) bordering the intermittent stream, as well as the stream itself, within the project area. These areas are shown in **Figure 4-1** to **Figure 4-12**. Impacts to the riparian habitat associated with the intermittent stream, or the stream itself, would require a Lake and Streambed Alteration Agreement under Section 1600 et seq. of State Fish and Game Code.

Sensitive Habitats (Waters of the U.S./State)

The intermittent stream and seasonal wetlands that connect to waters of the U.S. are considered waters of the U.S. Additionally, all features considered waters of the U.S. plus isolated features such as some seasonal wetlands, the perennial emergent wetland, and the forested wetland would be considered waters of the state. Jurisdictional buffers for waters of the state in the project area would likely extend to the edges of the wetlands and would include the edges of riparian tree canopies surrounding the intermittent stream. Fill-related impacts to waters of the U.S. would require a Section 404 Clean Water Act permit, while any impacts to waters of the state would require either a Section 401 Water Quality Certification and/or Waste Discharge Requirements.

Nonnative and Invasive Species

Several non-native, invasive plant species occur along the project area in both riparian woodland and California annual grassland habitats. Of these, the following have a rating of “limited” invasiveness (considered invasive but their ecological impacts are minor on a statewide level and their reproductive biology and other attributes result in low to moderate rates of invasiveness) according to the California Invasive Plant Council (Cal-IPC): bristly ox-tongue (*Helminthotheca echioides*), wild radish, variable burclover (*Medicago polymorpha*), English plantain (*Plantago lanceolata*), and curly dock (*Rumex crispus*).

The following species have a “moderate” rating, indicating that they have substantial and apparent-but generally not severe-ecological impacts on physical processes, plant and animal communities, and vegetation structure, and that their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment would be generally dependent upon ecological disturbance: Italian thistle (*Carduus pycnocephalus ssp. pycnocephalus*), stinkwort (*Dittrichia graveolens*), rough cat’s ear (*Hypochaeris radicata*), summer mustard, pennyroyal (*Mentha pulegium*), blue gum (*Eucalyptus globulus*), Bermuda buttercup (*Oxalis pes-caprae*), acidic dock (*Rumex acetosella*), slender wild oat (*Avena barbata*), Bermuda grass (*Cynodon dactylon*), Italian ryegrass, and common velvet grass.

Species with a “high” invasive rating by the Cal-IPC have the potential to cause severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive

biology and other attributes are conducive to moderate to high rates of dispersal and establishment, and most are widely distributed ecologically. Within the project area the following species with a "high" rating were observed: French broom (*Genista monspessulana*) and Himalayan blackberry. French broom was found scattered within the California annual grassland biotic habitat in areas with other non-native species. Himalayan blackberry was found within private residence's landscaped areas along fence lines and within the understory of the mixed riparian forest and woodland. Due to their ubiquity in the region, project activities are not expected to result in the increase or spread of non-native and invasive plant species.

Impact Discussion

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

The proposed project activities would result in 2.55 acres of permanent impacts on California annual grassland, landscaped, developed, oak woodland, and roadside ditch habitat within the proposed project footprint, and temporary impacts on an additional 0.95 acre of these habitats. These impacts would reduce the extent of vegetation within the impact area and would result in a reduction in abundance of some of the common plant and wildlife species that occur on the site. However, the area of these habitats to be impacted occurs in a location in Sonoma County that has been subject to disturbance and fragmentation in the past and is embedded within a highly converted suburban and agricultural area, such that these areas do not provide regionally rare or especially high-value habitat for native vegetation or wildlife, or special-status species. In addition, these habitat types are abundant and widespread regionally and are not particularly sensitive, and the roadside habitat within the proposed project footprint is not especially valuable (from the perspective of providing important plant or wildlife habitat or an exemplary occurrence of this habitat type. Therefore, impacts on these habitats are considered less than significant. Further, because the number of individuals of any common plant or animal species within this habitat, and the proportion of these species' regional populations that could be disturbed, is very small, the proposed project's impacts would not substantially reduce regional populations of these species. Thus, these impacts do not meet the CEQA standard of having a substantial adverse effect and would not be considered significant under CEQA.

Impacts on Special-Status Plants

No Impact. As described above, no special-status plant species have potential to occur on or adjacent to the project area. Therefore, the proposed project will have no impact on these species.

Impacts on the California Red-legged Frog, California Giant Salamander, and Northwestern Pond Turtle.

Less Than Significant with Mitigation Incorporated. While California red-legged frogs, California giant salamanders, and northwestern pond turtles are not expected to reside or breed on the project area, occasional individuals from nearby populations may opportunistically occupy non-breeding aquatic or terrestrial habitats in the project area, especially during the wet season. The number of non-breeding individuals in the project area is expected to be very low, if these species

occur at all, due to the limited extent and low quality of aquatic habitats in the project area and the dispersal impediments imposed by surrounding development. Although individuals are expected to occur in the study area only on an occasional basis, if it all, if individuals are present during construction activities, injury or mortality of individuals could result from vegetation removal, grading, excavation, and movement of personnel and heavy equipment. Seasonal movements may be temporarily and locally affected during construction activities because of disturbance, and substrate vibrations may cause individuals to move out of refugia, exposing them to a greater risk of predation or desiccation. In addition, petrochemicals, hydraulic fluids, and solvents that are spilled or leaked from construction vehicles or equipment may kill individuals. Further, increases in human concentration and activity in the vicinity of potentially suitable dispersal habitat may result in an increase in native and nonnative predators that would be attracted to trash left at the work site and that would prey opportunistically on individuals of this species. The proposed project would result in impacts to up to 2.34 acres of non-developed habitat types that could potentially be used by this species during dispersal. Such habitat is of low value to the species due to the paucity of high-quality cover and refugia, and the roadways (e.g., Mirabel Road, Trenton Road, etc.) that these species would need to traverse to reach these habitat areas, and thus, impacts on potential habitat of these species are less than significant. Nevertheless, in the absence of avoidance and minimization measures, potential impacts to individual California red-legged frogs, California giant salamanders, and northwestern pond turtles would be considered significant due to these species' regional rarity. Implementation of Mitigation Measures MM BIO-1 to MM BIO-6 described below would reduce project impacts on these species to a less-than-significant level.

Mitigation Measures

MM BIO-1: Seasonal Work Restrictions

Work shall be avoided within non-developed habitat from October 15 (or the first measurable fall rain of 1 inch or greater) to April 15. If avoidance is not feasible, work may be performed during the wet season in upland areas where clearing and grubbing have already been completed, so that habitat conditions for special-status species are no longer suitable, and where exclusion fencing isolates suitable habitats from the work area.

MM BIO-2: Worker Environmental Awareness Training

All construction personnel shall attend a mandatory Worker Environmental Awareness Training Program delivered by a qualified biologist prior to working within the project area. The program shall include an explanation of the laws protecting sensitive biological resources and how to best avoid and minimize impacts on sensitive habitats and species.

MM BIO-3: Preconstruction Surveys

A qualified biologist shall conduct pre-construction surveys for California red-legged frogs, California giant salamanders, and northwestern pond turtles in potential habitat no more than 48 hours prior to commencement of project activities. If individuals are found, work shall not begin until the individuals have moved on their own, or are relocated by a qualified biologist (which would require USFWS and CDFW approval), out of the construction zone to an

appropriate relocation site. In the unlikely event that individual California red-legged frogs are present, consultation with the USFWS under the Federal Endangered Species Act may be necessary before individuals are impacted.

MM BIO-4: Construction Monitoring

A qualified biologist shall be present for initial ground disturbing activities, including vegetation clearing and grubbing. If any California red-legged frogs, California giant salamanders, or northwestern pond turtles are detected within areas where they could be impacted by project activities, they shall be allowed to move out of the impact areas on their own. If they will not do so, the qualified biologist shall relocate any individuals found within the impact area to appropriate locations outside the site (which would require USFWS and CDFW approval). Following the completion of initial clearing and grubbing, the qualified biologist shall inspect the site weekly during the remainder of construction activities. If an animal that is thought to potentially be a California red-legged frog, California giant salamander, or northwestern pond turtle is detected by construction personnel, all work that could affect the animal shall stop; a qualified biologist shall be contacted; and the qualified biologist shall determine whether the animal is a California red-legged frog, California giant salamander, or northwestern pond turtle and relocate the animal as described above.

MM BIO-5: Monofilament Plastic

No monofilament plastic shall be used in erosion control features to avoid entanglement of frogs, salamanders, or turtles.

MM BIO-6: Inspection of Open Trenches

Construction personnel shall inspect open trenches in the morning and evening for trapped California red-legged frogs, California giant salamanders, and northwestern pond turtles. If any individuals are found trapped, all work that could affect the animal shall stop; a qualified biologist shall be contacted; and the qualified biologist shall determine whether the animal is a California red-legged frog, California giant salamander, or northwestern pond turtle and relocate the animal as described above.

Impacts on Nesting Birds

Less than Significant Impact. Several species of common native birds protected by the MBTA and California Fish and Game Code may nest in trees and shrubs on the site or immediately adjacent to the site. During the avian breeding season (generally February 1 through August 31), the removal of vegetation supporting active nests may cause the direct loss of eggs or young, while construction-related activities located near an active nest may cause adults to abandon their eggs or young. This type of impact would not be significant under CEQA, because of the local and regional abundances of the species that could potentially nest on the site and the very low magnitude of the potential impact of development on these species (i.e., the proposed project is expected to impact only a few pairs of these species, which is not a substantial impact on their regional populations). Thus, no mitigation measures are warranted to avoid and minimize project impacts on nesting birds under

CEQA. Nevertheless, because all native bird species that could nest on or adjacent to the project area are protected by the federal MBTA and the California Fish and Game Code, it is recommend that the proposed project implement the following measures to avoid and minimize impacts on nesting birds during project construction:

- **Recommended Measure A. Nesting-Season Avoidance.** To the extent feasible, construction activities should be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts to nesting birds protected under the MBTA and California Fish and Game Code would be avoided. The nesting season for most birds in Sonoma County extends from February 1 through August 31, inclusively.
- **Recommended Measure B. Preconstruction/Pre-disturbance Surveys and Buffers.** If it is not feasible to schedule construction activities and/or tree removal between September 1 and January 31, preconstruction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no nests shall be disturbed during project implementation. These surveys shall be conducted no more than seven days prior to the initiation of demolition or construction activities, including tree removal and pruning. During this survey, the biologist shall inspect all trees and other potential nesting habitats (e.g., trees, shrubs, ruderal grasslands, buildings) in and immediately adjacent to the impact areas for nests. If an active nest is found sufficiently close to work areas to be disturbed by these activities, the biologist shall determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code shall be disturbed during project implementation.

Impacts on Roosting Bats

Less than Significant Impact. An examination of trees and structures on and adjacent to the project area failed to detect any cavities or crevices large enough to provide high-quality habitat for a roosting or maternity colony of common or special-status bat species. If an individual bat is roosting in a tree to be removed, it is likely that the bat would flush before it could be injured or killed directly. Also, if bats are roosting in trees just outside the impact area, noise or other disturbance could cause those bats to flush from their roost sites. Such bats could be subject to a higher predation risk if flushed during the daytime. However, given the low quality of bat roosting habitat in trees within and near the impact area, the number of bats that could be displaced from roosts and suffer higher predation risk is low. Also, no high-quality bat roost habitat will be directly removed by the proposed project. As a result, the proposed project is expected to have very little impact (if any) on common or special-status species of bats, and no mitigation measures are warranted to avoid and minimize project impacts on roosting bats under CEQA.

Impacts on Special-Status Species Downstream from the Project Area

Less Than Significant Impact. Although no suitable habitat for special-status fish or foothill yellow-legged frogs is present on or immediately adjacent to the project area, these species are known to be present just outside the project area (to the north) along the Russian River. Given the much greater flow in the Russian River, compared to the roadside ditches and the intermittent stream within the project area, it is highly unlikely that any project activities could adversely affect water

quality to the point that fish, foothill yellow-legged frogs, or other species in and along the Russian River would be significantly impacted, as materials washed into the Russian River would be quickly diluted. Nevertheless, if spills of chemicals or fuels were to occur during project implementation, those toxins could reach the Russian River, potentially killing or impairing the health of aquatic animals.

Project development also has the potential to cause indirect impacts on wetlands due to changes in water quality. However, the proposed project will follow a Stormwater Pollution Prevention Plan (SWPPP) as per the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit; Water Board Order No. 2009-0009-DWQ). Further, construction projects in California causing land disturbances that are equal to 1 acre or greater must comply with State requirements to control the discharge of stormwater pollutants under the California Regional Water Quality Control Board, North Coast Region, Order No. R1-2015-0030, NPDES No. CA0025054, NPDES Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4). Prior to the start of construction/demolition, a Notice of Intent must be filed with the State Water Board describing the proposed project. A SWPPP must be developed and maintained during the proposed project, and it must include the use of BMPs to protect water quality until the site is stabilized. Standard permit conditions under the Construction General Permit require that the applicant utilize various measures including: on-site sediment control best management practices, damp street sweeping, temporary cover of disturbed land surfaces to control erosion during construction, and utilization of stabilized construction entrances and/or wash racks, among other factors. Immediately after completion of project components located in the riparian habitat, and before close of seasonal work window, stabilize all exposed soil with mulch, seeding, and/or placement of erosion control blankets.

The proposed project will implement low impact design features to treat stormwater for increases in impermeable surfaces as a part of the proposed project to prevent long term impacts to water quality as a result of the proposed project.

Compliance with the Statewide Construction General Permit and the MS4 and with implementation of stormwater treatment features will ensure that stormwater runoff leaves the site free of substantial amounts of sedimentation and pollutants, maintaining that impacts to water quality and special status species downstream from the project area are less than significant, due to the sensitivity of the special status species to water quality.

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

Impacts on Riparian/Stream Habitat and Other Sensitive Communities

Less Than Significant with Mitigation Incorporated. The CDFW defines sensitive natural communities and vegetation alliances using NatureServe's standard heritage program methodology. Riparian habitats are also protected under applicable state or local regulations, and are generally subject to regulation, protection, or consideration by the RWQCB and CDFW. Project impacts on sensitive natural communities, vegetation alliances/associations, or any such community identified in local or regional plans, policies, and regulations, were considered and

evaluated. Riparian habitats contribute disproportionately high habitat values for wildlife and ecological functions relative to their extent, and the permanent conversion or loss of even small amounts of this habitat type would be considered significant under CEQA. Impacts to riparian habitats, which fall under the jurisdiction of the CDFW will require a Lake or Streambed Alteration Agreement from CDFW. Further, riparian habitats below top of bank are regulated by the RWQCB, and will therefore be subject to a Section 401 certification in the Clean Water Act from the RWQCB.

The riparian habitat along the intermittent stream is of moderate quality with a native overstory (i.e., native willows and one small coast live oak tree) and a mostly non-native understory (i.e., non-native annual grasses and Himalayan blackberry). Based on a GIS overlay of the proposed project activities on mapped habitat types, the proposed project will permanently impact 0.002 acre of mixed riparian habitat and 0.0003 acre of intermittent stream habitat, and temporarily impact 0.007 acre of mixed riparian habitat and 0.001 acre of intermittent stream. The permanent impacts to both habitat types will be from the replacement and extension of two existing headwalls for the intermittent stream's concrete box culvert under Mirabel Road and laying a very small amount of new pavement in the understory. Only one young coast live oak constitutes the riparian canopy and it is not anticipated to be impacted from the proposed project. Temporary impacts will be due to light trimming of the riparian canopy to allow equipment access during the replacement of the existing headwalls, herbaceous understory removal, construction access, and grading. Indirect impacts to riparian habitat will be avoided through compliance with the Statewide General Construction Permit and incorporation of stormwater treatment features required by regional stormwater orders.

In particular, the proposed project would need to comply with the following applicable impact avoidance conditions and design criteria:

- Dewatering will be via a cofferdam/culvert system, and an active channel flow will be maintained during all work.
- Refueling or maintenance of large equipment will take place at least 50 feet outside the riparian habitat.

Even while complying with the avoidance and minimization measures above, project impacts to the riparian understory, loss of riparian habitat due to the expanded road structure, and trimming the overstory of any riparian and intermittent stream habitat would be considered a significant impact due to the high ecological value of these habitats. Implementation of MM BIO-1 above, and Mitigation Measures MM BIO-7 through MM BIO-9 below will reduce this impact to a less-than-significant level.

Mitigation Measures

MM BIO-7: Riparian Vegetation Protection

Removal of riparian vegetation and trees shall be limited to the minimum extent required to construct the proposed project. All riparian trees to be avoided shall be protected by installing orange construction fencing around the Tree Protection Zone (TPZ), which is defined as the dripline of their canopies. Any work that must take place within the TPZ must be observed by an arborist to help direct the work to protect the tree. Minimize pruning by tying back limbs, where possible, instead of trimming. Do not store materials within TPZ.

MM BIO-8: Dewatering

Project-related construction activities shall be performed outside of the rainy season, April 15–October 15, which will minimize year-round flows that may potentially need to be dewatered for project activities. The proposed project shall comply with all measures in the general construction permit that pertain to dewatering and water quality protection.

MM BIO-9: Compensate for Impacts to Mixed Riparian and Intermittent Stream Habitat

Permanent impacts within mixed riparian habitat and intermittent stream shall be mitigated at a minimum 3:1 ratio (mitigation area to impact area). Prior to construction, the project proponent shall purchase credits from a mitigation bank approved by the applicable resource agencies and/or prepare a Mitigation and Monitoring Plan (MMP) describing the habitat creation, restoration, and/or enhancement that will satisfy the mitigation requirements for permanent impacts. Impacts on jurisdictional aquatic habitat may not commence until the adequate credits in a mitigation bank have been purchased and/or any relevant regulatory agencies approve the MMP, so that the total mitigation requirement is satisfied. A MMP would include enhancement of a riparian corridor in the region of Sonoma County within the Russian River watershed. This enhancement would consist of seeding of native vegetation appropriate to the site, and management of any particularly noxious occurrences of invasive plants, in a way that will enhance the structure and function of the riparian habitat.

The MMP would be prepared by a qualified restoration ecologist and would include the following:

- a summary of riparian and wetland impacts and the proposed riparian and wetland enhancement mitigation
- goals of the restoration to achieve no net loss of habitat functions and values
- the location of the mitigation site and description of existing site conditions
- mitigation design:
    - existing and proposed site hydrology, geomorphology, and geotechnical stability, if applicable
    - grading plan if appropriate, including bank stabilization or other site stabilization features
    - soil amendments and other site preparation elements as appropriate
    - planting/seeding plan with riparian or wetland species, such as meadow barley (*Hordeum brachyantherum*), wild rye (*Elymus triticoides*), and California brome (*Bromus carinatus*)
    - irrigation and maintenance plan
    - construction schedule

- monitoring plan (including specific, objective final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc.). Performance criteria will include maintaining a maximum of 5 percent cover of invasive species and 70 percent cover of non-invasive species, where invasive species are defined as species that are ranked as High by Cal-IPC.
- a contingency plan for mitigation elements that do not meet performance or final success criteria within five years; this plan will include specific triggers for remediation if performance criteria are not being met.

Temporarily impacted areas of mixed riparian and intermittent stream habitat will be restored on site in place at a 1:1 ratio through clearing and grubbing of invasive species such as Himalayan blackberry and greater periwinkle, applying a native seed mix, and three years of photo monitoring.

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?

Less Than Significant with Mitigation Incorporated. Wetland and aquatic habitats that may be subject to the regulatory jurisdiction of the Clean Water Act Section 404 with U.S. Army Corps of Engineers and Section 401 with RWQCB are present in the project area. Wetlands are relatively scarce regionally, and even small wetland areas make disproportionate contributions to water quality, groundwater recharge, watershed function, and wildlife habitat in the region. Thus, any permanent loss or temporary disturbance of wetland habitat because of the proposed project would be considered significant under CEQA (Criterion G). Aquatic habitat associated with the unnamed stream are discussed above.

Roadside ditches, including those with seasonal wetlands in them, will not be converted to underground storm drains and instead will be relocated, in an effort to reduce impacts to aquatic habitat.

Project activities will permanently impact 0.040 acre of forested wetland, 0.029 acre of seasonal wetland, and 0.001 acre of perennial emergent wetland, for a total of 0.070 acre. Project activities do not include temporary impacts to forested wetland, seasonal wetland, or perennial emergent wetland habitat. Permanent impacts will be due to filling and paving with asphalt. Dewatering will be via a cofferdam/culvert system, and an active channel flow will be maintained during all work. No substantial effects on water drainage or on the contributing watershed are anticipated to occur from construction.

Loss or degradation of sensitive habitats such as wetlands from project impacts could be significant unless mitigated due to the important ecological functions these habitats provide. Implementation of Mitigation Measures MM BIO-1, MM BIO-7, MM BIO-8, and MM BIO-10 will reduce impacts on wetlands to a less-than-significant level.

Mitigation Measures

MM BIO-10: Compensatory Mitigation for Wetland Habitats

Mitigation for temporary or permanent impacts on wetlands may be achieved

through one or more options, potentially including (but not limited to):

- On-site restoration or creation of wetlands or aquatic habitats (including removal of on-site fill) if feasible on-site restoration opportunities exist;
- off-site restoration/creation of wetlands; or
- purchase of 0.08 acre of mitigation credits at approved mitigation banks within the Sonoma County region (e.g., East Austin Creek Conservation Bank or Hale Mitigation Bank may provide appropriate wetland mitigation credits and the site is within the banks' service area).

While none are anticipated, if forested wetland, seasonal wetland, or perennial emergent wetland habitat turn out to be temporarily impacted by project activities (i.e., non-grading activities that don't change the hydrology or topography) in the final project design, it will be restored in-place at 1:1 (restoration area: impact area) within one year or less using a native seed mix. For permanent impacts, if bank credits are purchased as mitigation, the amount of compensatory mitigation provided will be at least 2:1 (i.e., at least equivalent to double the acreage of jurisdictional wetlands permanently impacted). If wetlands are created as mitigation (permittee-responsible mitigation), the amount of compensatory mitigation provided will be at least 2:1 to account for the time required for created wetland to reach maturation and replace the ecological function of the impacted wetland habitat. This permittee-responsible mitigation would be outlined in an MMP under the same requirements described under MM BIO-9. Success criteria for wetlands will include a maximum of 5 percent cover of species ranked as High by Cal-IPC and 70 percent cover of non-invasive species.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant Impact. For many species, the landscape is a mosaic of suitable and unsuitable habitat types. Environmental corridors are segments of land that provide a link between these different habitats while also providing cover. Development that fragments natural habitats (i.e., breaks them into smaller, disjunct pieces) can have a twofold impact on wildlife: first, as habitat patches become smaller they are unable to support as many individuals (patch size); and second, the area between habitat patches may be unsuitable for wildlife species to traverse (connectivity).

The roads and residential development that are currently present in the project area already restrict wildlife movement to some extent. The proposed road expansion would not result in the further fragmentation of natural habitats and the wildlife that currently move in and around the project area, as the proposed project will only slightly widen an existing road. To the extent that animals already move along and across the project area, they will be able to continue to do so following project completion. Thus, the proposed project would not interfere substantially with the movement of any native resident, migratory fish, wildlife species, or migratory wildlife corridors in the site vicinity.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree

f) preservation policy or ordinance?

Less Than Significant Impact. On July 25, 2025 a tree inventory was prepared by Horticultural Associates which determined the existing tree species, common name, and trunk diameter within the project area (**Appendix D**). A total of 55 trees were identified and assessed within the project area. Tree species consists of native and non-native trees of various diameters ranging from 6 to 40 inches diameter at breast height (dbh). Per Section 26-88-010(M) Tree Protection Ordinance of the Sonoma County regulations, redwoods with single stem dbh exceeding 48 inches and oaks and other hardwoods with single stem dbh exceeding 36 inches are protected. Similarly, there is a protected area surrounding these trees, the radius of which is at least 1.5 times the distance from trunk to outermost extent of canopy. Trees subject to the Tree Protection Ordinance are anticipated to be impacted. The removal or pruning of trees protected by Sonoma County regulations is considered potentially significant under CEQA (Criterion I). As such, the proposed project would comply with the County regulations for all trees removed, including obtaining a use permit, which requires mitigation through replacement or in-lieu payment.

With compliance with Sonoma County regulations, any potential impacts related to conflict with local policies or ordinances involving protecting trees would be less than significant.

g) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The project area is not located within an area covered by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the proposed project would not conflict with any such plans.

Cumulative Impacts

Cumulative impacts arise due to the linking of impacts from past, current, and reasonably foreseeable future projects in the region. Future development activities in Sonoma County will result in impacts on the same habitat types and species that will be affected by the proposed project. The proposed project, in combination with other projects in the area and other activities that impact the species that are affected by this project, could contribute to cumulative effects on special-status species. Other projects in the area include office/retail/commercial development, mixed use, and residential projects that could adversely affect these species.

The cumulative impact on biological resources resulting from the proposed project in combination with other projects in the larger region would be dependent on the relative magnitude of adverse effects of these projects on biological resources compared to the relative benefit of impact avoidance and minimization efforts prescribed by planning documents, CEQA mitigation measures, and permit requirements for each project; and compensatory mitigation and proactive conservation measures associated with each project. In the absence of such avoidance, minimization, compensatory mitigation, and conservation measures, cumulatively significant impacts on biological resources would occur.

However, many projects in the region that impact resources similar to those impacted by the proposed project will be subject to CEQA requirements. It is expected that such projects will mitigate their impacts

on sensitive habitats and special-status species through the incorporation of mitigation measures and compliance with permit conditions.

Regardless of the magnitude and significance of cumulative impacts that result from other projects, the proposed project is not expected to have a substantial effect on biological resources, and would implement the mitigation measure described above to reduce impacts under CEQA to less than significant levels. Thus, provided that this project successfully incorporates the mitigation measures described in this biological resources report, the proposed project will not have a cumulatively considerable contribution to cumulative effects on biological resources.

4.5 Cultural Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	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 in § 15064.5?				**X**
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		**X**		
c) Disturb any human remains, including those interred outside of dedicated cemeteries?			**X**	

The following discussion is based in part on the Cultural Resources Technical Report prepared for the proposed project in May 2025.

Regulatory Setting

Federal

National Register of Historic Places

The National Historic Preservation Act of 1966 established the National Register of Historic Places (NRHP) as "an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment" (36 Code of Federal Regulations section 60.2). To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

> **Criterion A:** It is associated with events that have made a significant contribution to the broad patterns of our history.
>
> **Criterion B:** It is associated with the lives of persons who are significant in our past.
>
> **Criterion C:** It embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction.

Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting at least one of the above designation criteria, resources must also retain integrity. The National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, defined as follows:

Location: The place where the historic property was constructed or the place where the historic event occurred

Design: The combination of elements that create the form, plan, space, structure, and style of a property

Setting: The physical environment of a historic property

Materials: The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property

Workmanship: The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory

Feeling: A property's expression of the aesthetic or historic sense of a particular period of time

Association: The direct link between an important historic event or person and a historic property

Certain properties are generally considered ineligible for listing in the NRHP, including cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions, relocated structures, or commemorative properties. Additionally, a property must be at least 50 years of age to be eligible for listing in the NRHP. The National Park Service states that 50 years is the general estimate of the time needed to develop the necessary historical perspective to evaluate. Properties which are less than 50 years must be determined to have "exceptional importance" to be considered eligible for NRHP listing.

State

California Register of Historical Resources

CEQA requires that a lead agency determine whether a project could have a significant effect on historical resources and tribal cultural resources (PRC Section 21074 [a][1][A]-[B]). A historical resource is one listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR; PRC Section 21084.1), a resource included in a local register of historical resources (PRC Section 15064.5[a][2]), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (PRC Section 15064.5[a][3]).

PRC Section 5024.1 requires an evaluation of historical resources to determine their eligibility for listing in the CRHR. The purpose of the register is to maintain listings of the state's historical resources and to indicate which properties are to be protected from substantial adverse change. The criteria for listing resources in the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP, as enumerated according to CEQA below:

> *PRC 15064.5(a)(3)* […] – Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (PRC Section 5024.1; Title 14 CCR Section 4852) including the following:
>
> (1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
>
> (2) Is associated with the lives of persons important in our past
>
> (3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
>
> (4) Has yielded, or may be likely to yield, information important in prehistory or history
>
> *PRC 15064.5(a)(4)* – The fact that a resource is not listed in or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to Section 5020.1[k] of the PRC), or identified in an historical resources survey (meeting the criteria in section 5024.1[g] of the PRC) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1.
>
> *PRC Section 15064.5(b*) – A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

If a project can be demonstrated to cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to permit any or all 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] – [c].)

PRC Section 21083.2(g) defines a unique archaeological resource as an artifact, object, or site about which it can be demonstrated clearly that, without merely adding to the current body of knowledge, there is a high probability that it does one or more of the following:

1. 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.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Impacts to significant cultural resources that affect the characteristics of any resource that qualify it for the NRHP or adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. These impacts could result from physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an 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 an historical resource that convey its historical significance and that justify its inclusion or eligibility for inclusion in the CRHR (*CEQA Guidelines* Section 15064.5[b][2][A]).

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 (Public Resources Code, 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 (Public Resources Code, 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. Furthermore, resources may still be eligible for listing in the CRHR even if they do not retain sufficient integrity for NRHP eligibility. Generally, the California Office of Historic Preservation recommends resources over 45 years of age be recorded and evaluated for historical resources eligibility.

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 Public Resources Code

Section 5097.98 of the California Public Resources Code states that the Native American Heritage Commission (NAHC), upon notification of the discovery of Native American human remains pursuant to Health and Safety Code §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.

California Senate Bill 18

California Government Code Section 65352.3 (adopted pursuant to the requirements of SB 18) requires local governments to contact, refer plans to, and consult with tribal organizations prior to making a decision to adopt or amend a general or specific plan. The tribal organizations eligible to consult have traditional lands in a local government's jurisdiction, and are identified, upon request, by the NAHC. As noted in the California Office of Planning and Research's Tribal Consultation Guidelines (2005); "The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places." SB 18 refers to PRC Section 5097.9 and 5097.995 to define cultural places as:

- A Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine (PRC Section 5097.9)

- A Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the California Register of Historical Resources pursuant to Section 5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site (PRC Section 5097.995).

Codes Governing Human Remains

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 NAHC within 24 hours of this identification.

Section 5097.98 of the California Public Resources Code states that the NAHC, upon notification of the discovery of Native American human remains pursuant to Health and Safety Code §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.

Regional

Sonoma County Landmarks Commission

The Sonoma County Landmarks Commission was established in 1974 and charged with the authority to designate Historic Landmarks and Historic Districts zoning. Sonoma County Code Section 26-68- 005 states:

> Intent and Purpose. The Board of Supervisors finds and declares that the preservation of structures, sites, and areas of historical, architectural, and aesthetic interest promotes the general welfare of the citizens of Sonoma County. The purpose of this district is to protect those structures, sites, and areas that are reminders of past eras, events and persons important in local, state, or national history, or which provide significant examples of architectural styles of the past, or which are unique and irreplaceable assets to the County and its communities, or which provide for this and further generations examples of the physical surroundings in which past generations lived, so that they may serve an educational and cultural function for the citizens of Sonoma County and for the general public.

Sonoma County Landmarks

All structures, sites, and areas associated with significant events or persons, or that are important examples of architectural styles, are eligible for consideration as a Sonoma County Historic Landmark. As revised in 2008, the following criteria, which are based on NRHP and CRHR designation criteria, are used by the Landmark Commission for designation.

The quality of significance in Sonoma County, California, or American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, association, and one or more of the following:

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

Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible as an Historic Landmark. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

a) A religious property deriving primary significance from architectural or artistic distinction or historical importance
b) A building or structure removed from its original location, but that is significant primarily for architectural value, or which is the surviving structure most importantly associated with an historic person or event
c) A birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his/her productive life
d) A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with an historic event
e) A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived within that area
f) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance
g) A property achieving significance within the past 50 years, if it is an important element to the environment of a particular community.

Sonoma County General Plan

The current County General plan contains the following goals and objectives related to cultural resources:

Goal OSRC-19: Protect and preserve significant archaeological and historical sites that represent the ethnic, cultural, and economic groups that have lived and worked in Sonoma County, including Native American populations. Preserve unique or historically significant heritage or landmark trees.

> **Objective OSRC-19.1:** Encourage the preservation and conservation of historic structures by promoting their rehabilitation or adaptation to new uses.
>
> **Objective OSRC-19.2:** Encourage preservation of historic building or cemeteries by maintaining a Landmarks Commission to review projects that may affect historic structures or other cultural resources.

Objective OSRC-19.3: Encourage protection and preservation of archaeological and cultural resources by reviewing all development projects in archaeologically sensitive areas.

Objective OSRC-19.4: Identify and preserve heritage and landmark trees.

Objective OSRC-19.5: Encourage the identification, preservation, and protection of Native American cultural resources, sacred sites, places, features, and objects, including historic or prehistoric ruins, burial grounds, cemeteries, and ceremonial sites. Ensure appropriate treatment of Native American and other human remains discovered during a project.

Existing Setting

The Natural and Cultural Setting sections below provide background information pertaining to the natural and cultural context of the project area. It places the project area within the broader natural environment which has sustained populations throughout history. This section also provides an overview of regional indigenous history, local ethnography, and post-contact history. This background information describes the distribution and type of cultural resources documented within the vicinity of the project area to inform the cultural resources sensitivity assessment and the context within which resources have been evaluated.

Natural Setting

The project area lies within the Russian River subregion at an approximate elevation ranging from 23 meters (75 feet) to 61 meters (200 feet) above mean sea level. None of the surrounding area retains its natural setting, with the project area located in a residential area characterized by a mix of single-family homes and commercial businesses. Vegetation within the vicinity of the site consists of ornamental trees, including low ground cover, consistent with urban environmental settings and manicured landscapes.

Cultural Setting

Indigenous History

The project area lies in the southern portion of the Northwest California archaeological region, known as the Russian River subregion. According to Hildebrandt (2007), the prehistoric cultural chronology for the area can be generally divided into four periods: The Pleistocene-Holocene Transition (ca. 11,500-8,000 B.C.) the Early Holocene (8,000-5,000 B.C.), Middle Holocene (5,000-2,000 B.C.), Late Holocene (2,000 B.C. - Contact).

Pleistocene-Holocene Transition

The earliest known archaeological finds in Northwest California are fluted Clovis-like points and chipped stone crescents, which make up the Post Pattern. Limited finds dating to this time period have been made, including Post Pattern sites near Clear Lake and Cache Creek in Lake County and isolated finds in Mendocino County and at Bodega Head. The earliest represented site in the Russian River subregion is LAK-36, dating to approximately 10,000 B.C. and located approximately 35 miles northeast of the APE.

Early Holocene

In Northwest California, the Early Holocene is characterized by the Borax Lake Pattern and the Berkeley Pattern. The Borax Lake Pattern is typically represented by large wide-stemmed projectile points, serrated bifaces, ovoid flake tools, hand stones, and millingslabs. No faunal or floral remains have been identified at Borax Lake Pattern sites, so diet composition remains unclear. The Borax Lake Pattern is

found throughout the Northwest region and among several environmental contexts, including ridge tops (HUM-573, HUM-367), terraces (TRI-1008), the Clear Lake Basin (MEN-1711), and the Santa Rosa Plain (SON-20).

Middle Holocene

In the Northwest Coast region during this period, the Mendocino Pattern is common throughout the area and is categorized by side-notched, corner-notched, and concave-base points and a variety of other stone tools. Changes moving toward the Berkeley Pattern take place around 6500 B.C, but persist into this period. The Berkeley Pattern is characterized by elaborate points, bone tools, contracting and square-stem points, baked clay items, and mortars and pestles. The use of pestles was primarily used for acorn processing. Most sites dating to this period are hunting camps or short-term forager residential areas, several of which were found along the Russian River (SON-572, SON-568, and SON-547), within the Santa Rosa Plain (SON-456 and SON- 960), or within the Clear Lake Basin (LAK-72, LAK-261, and LAK-510).

Late Holocene

During the Late Holocene, the Northwest Coast Russian River subregion includes sites representative of the Augustine Pattern, with some sites showing a revival of the Berkeley Pattern in 1200 B.C. after a hiatus in the archaeological record. The Augustine Pattern is characterized by corner-notched projectile points and ornate ceremonial and decorative objects. The archaeological record exhibits a high degree of diversity in material culture patterns, site types, and degrees of sedentism. Seasonal Augustine Pattern sites have been identified along the Sonoma County Coast, though researchers have argued for a more sedentary settlement system inland.

Ethnographic Setting

The project area is located within the traditional territory of the Southern Pomo people. Southern Pomo territory includes Sonoma County, extending roughly from the coast at Gualala, east into Lake Sonoma and Cloverdale, and south covering the Russian River. Southern Pomo territory is bordered by the Southwestern (Kashaya) to the west, the Wappo to the east, the Coast Miwok to the south, and the Central Pomo to the north. Early ethnographers have recorded Southern Pomo as one of several distinct Pomoan language groups, including the Central, Northern, Eastern, Northeastern, Southern, Southwestern (Kashaya), and Southeastern. The word Pomo was taken from two Northern Pomo terms reportedly used interchangeably in English: Po'-mo, "red magnesite mine", and Po'-ma, "those who live at" or "people."

Southern Pomo society was recorded by early ethnographers as consisting of independent tribelets, or extended kin groups, ranging in size from 100 to 2,000 people led by a headman or minor chief, as part of a council of principal ruling elite. Nuclear families averaged five to six persons, and kin groups might join together to form a larger confederation for military purposes, electing one "war chief" leader. Observed social status relied on family, background, wealth, and individual achievement, where individuals held professional positions requiring apprenticeships such as chieftainship, shamanic roles, doctors, bead making, hunting, and craftmaking. A highly respected and revered profession was the bear doctor, wielding special powers of healing and poisoning through religious and ritual paraphernalia.

Southern Pomo houses consisted of seasonal multifamily communal structures constructed of wooden frames and thatched with brush and grass or tule. Other important structures include sweathouses and assembly or dance houses. The sweathouse, or men's house, was an earth covered conical structure.

The dance house was a semi-subterranean with a center pole and smoke hole, tunnel entrance, and rear door, which averaged 70 feet in diameter.

Southern Pomo subsistence was adapted to the environment around them for which they based their patterns on hunting, gathering, and fishing, with acorns, grains, pepperwood nuts, and buckeyes as primary staples to be stored year round. Other important plant resources included berries and seeds. Big game included bear, deer, elk, and antelope, along with smaller game including rabbits and squirrels. Material culture included obsidian and chert tools, intricate basketry, and bone and shell implements. The Southern Pomo participated in a shell bead exchange system internally and among other tribal groups.

The Southern Pomo likely had their first contact with European culture upon the establishment of a settlement in California by the Russian fur traders at Fort Ross in 1811. At the time of contact, the population of Southern Pomo is estimated at approximately 600 to 1,000 people in the greater Cloverdale area, with two large villages around Dry Creek comprising of 500 combined. Intermarriage between Russians and the Southern Pomo occurred, and the Southern Pomo language borrowed some Russian words. Spanish occupation began in 1821, and Mission Solano was established in 1823 with the forced labor of the Southern Pomo. Within a generation or two, direct conflict, slave labor, and exposure to European diseases nearly decimated them. In 1858, the Southern Pomo were forced onto the Round Valley reservation in Yuki territory, and in the 20th century, the Southern Pomo were granted official lands for rancherias, including Dry Creek and Graton in 1915, Mark West in 1916, Cloverdale in 1921, and Lytton in 1926/27. Today, five Pomo-affiliated tribes within Southern Pomo territory are federally recognized, including the Cloverdale Rancheria of Pomo Indians, Dry Creek Rancheria Band of Pomo Indians, Federated Indians Graton Rancheria, Lytton Rancheria, and Round Valley Indian Tribes of the Round Valley Reservation.

Post Contact Setting

Spanish Period (1769-1822)

For more than 200 years, Cabrillo and other Spanish, Portuguese, British, and Russian explorers sailed the Alta (upper) California coast and made limited inland expeditions, but they did not establish permanent settlements. In 1579, Francis Drake landed in what was most likely San Francisco Bay. In 1595, Sebastian Cermeño landed in Drake's Bay before returning south.

Gaspar de Portolá and Franciscan Father Junípero Serra established the first Spanish settlement in Alta California at Mission San Diego de Alcalá in 1769. This was the first of 21 missions erected by the Spanish between 1769 and 1823. Portolá continued north, reaching the San Francisco Bay in 1769. Short on food and supplies, the expedition turned back to San Diego. In 1770, Pedro Fages began his expedition, reaching the San Francisco Bay Area and exploring the region in 1772.

In 1770, the mission and presidio at Monterey were founded and three years later Juan Bautista de Anza proposed to open a land route from Sonora to Monterey. The viceroy at the time, Antonio de Bucareli, sanctioned Anza's expedition and proposed he extend it to form a settlement at the bay of San Francisco. Anza's first expedition traveled from Mexico City to Monterey. During this time, various sea expeditions from Monterey resulted in the discovery of Nootka Sound, the Columbia River, and the Golden Gate. Anza's second expedition began in 1775 and lead to the establishment of the presidio and Mission Dolores at San Francisco. Spanish colonial activity in the Bay Area concentrated on Mission

Dolores and the presidio. Mission San Francisco Solano was founded in Solano during the Mexican Period, in 1823, and was the last California mission established.

Mexican Period (1822-1848)

The Mexican Period commenced when news of the success of the Mexican Revolution (1810-1821) against the Spanish crown reached California in 1822. This period saw the privatization of mission lands in California with the passage of the Secularization Act of 1833. This Act enabled Mexican governors in California to distribute mission lands to individuals in the form of land grants. Successive Mexican governors made more than 700 land grants between 1822 and 1846, putting most of the state's lands into private ownership for the first time.

The Mexican Period saw an increased importance of sea trade and an influx of American settlers, which motivated the United States to expand its territory into California. The United States supported a small group of insurgents from Sonoma during the Bear Flag Revolt, during which the Bear Flaggers captured Sonoma in June 1846. The next month, Commodore John Drake Sloat landed in Monterey and proceeded to take Yerba Buena, Sutter's Fort, Bodega Bay, and Sonoma. Fighting between American and Mexican forces continued until Mexico surrendered in 1847.

American Period (1848- Present)

The American Period officially began with the signing of the Treaty of Guadalupe Hidalgo in 1848, in which the United States agreed to pay Mexico $15 million for the conquered territory that included California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming. Settlement of California continued to increase during the early American Period. Many ranchos in Sonoma County were sold or otherwise acquired by Americans, and most were subdivided into agricultural parcels or towns.

The discovery of gold in northern California in 1848 led to the California Gold Rush and California's population grew exponentially. During this time, San Francisco became California's first true city, growing from a population of 812 to 25,000 in only a few years.

Sonoma County

The following excerpt from the County of Sonoma Historic Resources web page offers an overview of the County's history since the nineteenth century:

> Before the European settlement, [the Pomo, (Coast) Miwok, and Kashaya Indians inhabited] what is today, Sonoma County. In 1812, the Russians established the short-lived Fort Ross along the coast north of the Russian River. Further east, the Sonoma Mission was established during the Mexican period in 1823. Shortly afterwards, Sonoma became the County's first town, a pueblo, under General Mariano Vallejo. During that time, sections of the County were transformed into vast land-grant ranchos, such as Vallejo's holdings that extended from today's Petaluma to the town of Sonoma. Most of the construction during the first half of the nineteenth century was adobe and wood. These construction methods drew on the Mexican tradition while incorporating some of the features and floor plans of the Anglo Americans.
>
> After statehood, logging along the coast hills, cattle ranching, wheat and potato farming, and the early development of the wine industry supported the sparsely settled county. During this time, commercial and industrial buildings used local stone or brick, while most residences were

built of wood. During the 1860s to the 1890s, Petaluma, at the head of navigation on the Petaluma Creek, enjoyed rapid economic growth that fueled the construction of [its] downtown with sophisticated iron-front commercial buildings and elegant residences nearby.

Later the railroads facilitated the movement of goods and people leading to the establishment of processing plants and factories along the rail lines.

Around the turn of the century, the Russian River developed as a vacation resort, a destination for those in the San Francisco Bay Area. During this time, Santa Rosa also enjoyed an increase in population and importance as the center of finance and county government. Until World War II, the poultry industry, the processing of local fruit, and the production of hops sustained the economy throughout the County. In 1935, Sonoma County ranked tenth in the nation in overall agricultural production.

During the first half of the twentieth century, many of the stylish buildings were designed by local architects such as Brainerd Jones in Petaluma and William Herbert in Santa Rosa. After World War II, Clarence Caulkins and J. Clarence Felciano worked on many projects in the County. With reference to residential, commercial, and industrial architecture, many of the towns still retain excellent examples of both high style and vernacular building examples from the nineteenth and early twentieth centuries.

Today the southwestern part of the County continues to support cattle grazing and dairy farms. Toward the north many of the ranches and orchards have been replaced with acres of vineyards and thriving winery operations that rival Napa County. Over the years many of the poultry farms, fruit growers, and dairy operations have relocated to the Central Valley or sold their businesses completely. In their place, small specialty farms and ranches now operate sustainable and organic endeavors. Dotting the countryside throughout the County are modern residences where rural homesteads used to be. The Russian River area still caters to vacationers, but on a smaller scale, and the cities along the freeway continue to expand to provide housing and services with new subdivisions, business parks, and strip-mall shopping centers.

With 467,000 residents, the County has doubled its population since 1980. Part of the challenge has been to retain its agricultural and small-town character while providing for the livelihood of the expanding population. Related to this is the specific challenge of encouraging new development that complements both the physical beauty of the countryside and the County's rich heritage.

Forestville

Forestville developed in the northernmost area of Analy Township in Sonoma County, roughly 12 northwest of Santa Rosa, during the mid-eighteenth century. The settlement grew from land grant provided to Captain Juan Bautista Rogers Cooper from his brother-in-law General Mariano Vallejo in 1834. The area containing Forestville was known as Green Valley during this period. Cooper established California's first powered sawmill along what is today referred to as Mark West Creek in 1834. Although milling was an early industry in the vicinity, Forestville reportedly was named in 1867 for early settler and saloon owner, Andrew Jackson Forrester. A map of Sonoma County from 1866 did not depict "Forestville" as a community, but did include an individual named J. Forester as the owner of 160 acres to the northeast of the present-day intersection of Mirabel Road and Highway 116/Pocket Canyon

Highway/Front Street. This area includes the subject properties and was historically the location of Forestville's business district. As of 1866, Highway 116 does not appear to have existed in its current form, instead a dashed line on the map appears to have represented a dirt road or trail that connected to road following a similar alignment to present-day Vine Hill Road further eastward. Although several properties with a building were depicted in the vicinity, no buildings were depicted at the location of the subject site. Further to the north, near the present- day Mirabel Park area along the south side of the Russian River, a ford and a bridge were identified on the map, along with an unnamed road that generally paralleled a creek now known as Mark West Creek. Forestville was first surveyed in 1869, and a plat of the town was recorded in 1878.

By the 1880s, Forestville was known as having been the location of the first powered sawmill in California, but was particularly known as the location of the Faudré Chair Factory, which was established in 1865 and sold to S.S. Nowlin by 1874, was the largest manufacturing plant in Sonoma County. A nineteenth century historical account of the community noted the community was located "on the border of the redwood belt, and its inhabitants are mostly wood-choppers and lumbermen." At the time, large quantities of tan-bark [tree bark used for tanning hides] were shipped from Forestville during the period. Local businesses included a hotel, a saloon, a blacksmith shop, and two general stores, as well as a meat market. Nonetheless, Forestville was surrounded by agricultural areas and was developing into a fruit-growing center, with grapes and olives counted as specialty crops.

The Guerneville branch of the North Pacific Coast Railroad (NPCR), completed in 1877, included a Forestville station along the Russian River, and provided for commutation to San Francisco. The NPCDR served as a freight and passenger line and carried lumber, agricultural products and passengers between Cazadero and Sausalito, where ferry connection provided travel to San Francisco. The NPCR was sold to the North Shore Railroad Company, and in 1907 became part of the Northwestern Pacific Railroad (NPR). Known as "the Redwood Empire Route," the NPR consolidated six separate railroad companies when it formed in 1907. Passenger service in Marin and Sonoma counties ended in 1958. The Petaluma-Santa Rosa Railway connected Forestville with Sebastopol, Santa Rosa, and Petaluma via electric streetcar beginning in 1905, and continued to provide passenger service until 1932.

In addition to the lumber industry and agriculture, Forestville developed among a string of communities along the Russian River, including Mirabel Park, Cazadero, Monte Rio, Rio Nido, and Guerneville, that served regional tourism and recreation during the twentieth century. While neighboring river-adjacent communities included some resort areas, Forestville retained limited commercial services and concentrated residential areas while remaining essentially rural. Many vacationers' second homes in the region have been converted to permanent residences since the 1970s.

Impact Discussion

a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?

No Impact. The field survey and background research identified two built environment historical resources in the project area, 7131 Mirabel Road and 7001 Highway 116. As detailed above, these resources are recommended to be ineligible for the NRHP, CRHR, and as Sonoma County Landmarks due to a lack of historical and architectural significance. Therefore, neither property qualifies as a

historical resource defined by CEQA. The project would therefore result in no impact to historical resources pursuant to CEQA.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less Than Significant with Mitigation Incorporated. This study did not identify any archaeological resources or archaeological deposits within the project area. One archaeological resource (MB-01) consisting of a domestic historic-period refuse deposit observed in a possible-secondary context was identified adjacent to the project area near Lois Lane. No ground disturbing project-related activities are proposed in this area, and the proposed project is anticipated to avoid MB-01. In addition, the existing level of disturbance in the project area and general lack of archaeological sensitivity suggest there is a low potential for encountering intact subsurface archaeological deposits. However, the lack of surface evidence of archaeological materials within the project area does not preclude their subsurface existence. Given the presence of an adjacent archaeological deposit, the following recommended mitigation measures for Environmentally Sensitive Area (ESA) delineation and unanticipated discoveries during construction are listed below. With adherence to these measures, the findings are of less-than-significant impact with mitigation for archaeological resources under CEQA.

Mitigation Measures

MM CUL-1: Construction Buffer Zone to Avoid Impacts to the Environmentally Sensitive Area

Establish an ESA around MB-01 and a 10-foot buffer to avoid inadvertent adverse impacts by the proposed project during construction. The ESA shall be established with the placement of high visibility fencing, flagging tape, cones, or other boundaries to prevent activities beyond the proposed project footprint. In addition, the area shall be clearly marked on project plans, a sign posted noting the area as environmentally sensitive, and the construction crew informed of the ESA prior to the onset of work. In order to maintain confidentiality of the location of an archaeological resource, signage, markings, and notifications should not mention the nature of the resource.

MM CUL-2: 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 shall be contacted immediately to evaluate the resource. If the resource is determined by the qualified archaeologist to be Native American in nature, 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 the California Code of Regulations (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 City 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).

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact. No human remains are known to be present within the project area. 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 NAHC, which will determine and notify an 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.

Cumulative Impacts

Overall, the proposed project would not cause a considerable impact to historical cultural resources, archaeological cultural resources, or human remains. Due to the proposed project location and the addition of the above listed mitigation measures the proposed project would not cause a cumulatively considerable impact to occur.

4.6 Energy

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			**X**	
e) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			**X**	

The following discussion is based in part on the Air Quality, Greenhouse Gas Emissions, and Energy Study prepared for the proposed project in December 2024. A copy of this report is included as **Appendix A** to this Initial Study.

Regulatory Setting

Federal

Energy Policy Conservation Act and Corporate Average Fuel Economy

The Energy Policy Conservation Act (Corporate Average Fuel Economy [CAFE]) of 1975 established nationwide fuel economy standards to conserve oil. Pursuant to this Act, the National Highway Traffic and Safety Administration, part of the U.S. Department of Transportation, is responsible for revising existing fuel economy standards and establishing new vehicle fuel economy standards.

The CAFE program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Compliance with CAFE standards is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the U.S.

National Energy Policy Act of 1992

The National Energy Policy Act of 1992 ("EPACT92") calls for programs that promote efficiency and the use of alternative fuels. EPACT92 requires certain federal, state, and local governments and private operators to stock vehicle fleets with a percentage of light duty alternative fuel vehicles each year. In addition, EPACT92 has financial incentives: federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of alternative fuel vehicles. EPACT92 also requires states to consider a variety of incentive programs to help promote alternative fuel vehicles.

Energy Policy Act of 2005

The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan

guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act is designed to improve vehicle fuel economy and help reduce U.S. dependence on oil. It expands the production of renewable fuels, reducing dependence on oil, and confronting global climate change. Specifically, it does the following:

- Increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard that requires fuel producers to use at least 36 billion gallons of biofuel in 2022, which represents a nearly five-fold increase over current levels
- Reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020 – an increase in fuel economy standards of 40 percent over those in 2007

State

Warren-Alquist Act

The 1975 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The Act established a State policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The California Public Utilities Commission (CPUC) regulates privately owned utilities in the energy, rail, telecommunications, and water fields.

Assembly Bill 2076: Reducing Dependence on Petroleum

Pursuant to AB) 2076 (Chapter 936, Statutes of 2000; codified as Public Resources Code Sections 25720-25721), the CEC and CARB prepared and adopted in 2003 a joint agency report, Reducing California's Petroleum Dependence. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030; significantly increase the efficiency of motor vehicles; and reduce per capita vehicle miles traveled (VMT). One of the performance-based goals of AB 2076 is to reduce petroleum demand to 15 percent below 2003 demand. Furthermore, in response to the CEC's 2003 and 2005 Integrated Energy Policy reports, the Governor directed the CEC to take the lead in developing a long-term plan to increase alternative fuel use.

Integrated Energy Policy Report

SB 1389 (Chapter 568, Statutes of 2002) requires the CEC to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and price to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety.

California Renewables Portfolio Standard Program

In 2018, the California Renewables Portfolio Standard (SB 100) was signed into law, which increased the renewable portfolio standard (RPS) to 60 percent by 2030 (i.e., that 60 percent of electricity retail sales must be served by renewable sources by 2030) and requires all the state's electricity to come from carbon-free resources by 2045.

Senate Bill 350: Clean Energy and Pollution Reduction Act of 2015

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources to be increased to 50 percent by December 31, 2030. The Act also requires doubled energy efficiency savings in electricity and natural gas for retail customers through increased efficiency and conservation by December 31, 2030.

Assembly Bill 1493: Reduction of Greenhouse Gas Emissions

AB 1493 (Chapter 200, Statutes of 2002), known as the "Pavley bill," amended Health and Safety Code sections 42823 and 43018.5 and requires CARB to develop and adopt regulations that achieve maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles, light-duty trucks, and other vehicles used for noncommercial personal transportation in California.

Implementation of new regulations prescribed by AB 1493 required the State of California to apply for a waiver under the federal Clean Air Act. Although the U.S. EPA initially denied the waiver in 2008, U.S. EPA approved a waiver in June 2009, and in September 2009, CARB approved amendments to its initially adopted regulations to apply the Pavley standards that reduce GHG emissions to new passenger vehicles in model years 2009 through 2016. According to CARB, implementation of the Pavley regulations is expected to reduce fuel consumption while also reducing GHG emissions.

Energy Action Plan

The first Energy Action Plan (EAP) emerged in 2003 from a crisis atmosphere in California's energy markets. The State's three major energy policy agencies (CPUC, CEC, and the Consumer Power and Conservation Financing Authority [established under deregulation and now defunct]) came together to develop one high-level, coherent approach to meeting California's electricity and natural gas needs. It was the first time that energy policy agencies formally collaborated to define a common vision and set of strategies to address California's future energy needs. They emphasized the importance of the impacts of energy policy on California's environment.

In the October 2005 EAP II, the CEC and CPUC updated their energy policy vision by adding some important dimensions to the policy areas included in the original EAP, such as the emerging importance of climate change, transportation-related energy issues, and research and development activities. The CEC adopted an update to the EAP II in February 2008 that supplements earlier EAPs and examines the State's ongoing actions in the context of global climate change.

Assembly Bill 1007: State Alternative Fuels Plan

AB 1007 (Chapter 371, Statutes of 2005) required the CEC to prepare a State plan to increase the use of alternative fuels in California. The CEC prepared the State Alternative Fuels Plan ("SAF Plan") in partnership with CARB and in consultation with other State, federal, and local agencies. The SAF Plan presents strategies and actions California must take to increase the use of alternative, nonpetroleum fuels in a manner that minimizes costs to California and maximizes the economic benefits of in-state production. The SAF Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

Bioenergy Action Plan, Executive Order S-06-06

Executive Order (EO) S-06-06, April 25, 2006, establishes targets for the use and production of biofuels and biopower, and directs State agencies to work together to advance biomass programs in California while providing environmental protection and mitigation. The EO establishes the following target to increase the production and use of bioenergy, including ethanol and biodiesel fuels made from renewable resources: produce a minimum of 20 percent of its biofuels in California by 2010, 40 percent by 2020, and 75 percent by 2050. EO S-06-06 also calls for the State to meet a target for use of biomass electricity. The 2011 Bioenergy Action Plan identifies those barriers and recommends actions to address them so that the State can meet its clean energy, waste reduction, and climate protection goals. The 2012 Bioenergy Action Plan updates the 2011 Plan and provides a more detailed action plan to achieve the following goals:

- Increase environmentally and economically sustainable energy production from organic waste
- Encourage development of diverse bioenergy technologies that increase local electricity generation, combined heat and power facilities, renewable natural gas, and renewable liquid fuels for transportation and fuel cell applications
- Create jobs and stimulate economic development, especially in rural regions of the State
- Reduce fire danger, improve air and water quality, and reduce waste

Title 24, California Code of Regulations

CCR Title 24, Part 6, is California's Energy Efficiency Standards for Residential and Non-Residential Buildings. The CEC established Title 24 in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and nonresidential buildings. The standards are updated on an approximately three-year cycle to allow consideration and possible incorporation of new efficient technologies and methods. The latest update occurred in expected in 2022. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The building efficiency standards are enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary due to local climatologic, geologic, or topographic conditions, provided that these standards exceed those provided in Title 24.

California Green Building Standards Code, CCR Title 24, Part 11

California's green building standards code ("CALGreen"), was developed to provide a consistent approach to green building within the State. CALGreen lays out the minimum requirements for newly constructed residential and nonresidential buildings to reduce GHG emissions through improved efficiency and process improvements. It also includes voluntary tiers to further encourage 32 building practices that improve public health, safety, and general welfare by promoting a more sustainable design.

Regional

Sonoma County General Plan

The County General Plan Open Space and Resource Conservation Element includes goals and policies that would reduce energy use in the County. Goals and policies from the County General Plan are provided below.

Goal OSRC-14: Promote energy conservation and contribute to energy demand reduction in the County.

> **Objective OSRC-14.2:** Encourage County residents and businesses to increase energy conservation and improve energy efficiency.
>
> **Objective OSRC-14.3:** Reduce the generation of solid waste and increase solid waste reuse and recycling.
>
> **Policy OSRC-14d:** Support project applicants in incorporating cost effective energy efficiency that may exceed State standards.

Goal OSRC-15: Contribute to the supply of energy in the County primarily by increased reliance on renewable energy sources.

> **Objective OSRC-15.2:** Promote the use of renewable energy and distributed energy generation systems and facilities in new development in the County.

Existing Setting

Electricity and Natural Gas

In 2023, California used 281,140 gigawatt-hours (GWh) of electricity, of which 58 percent were from renewable resources. California also consumed approximately 11,923 million U.S. therms (MMthm) of natural gas in 2022. Sonoma County as a whole consumed approximately 111 million therms of natural gas in 2018 in both residential and non-residential uses. Sonoma County also consumed approximately 2,928 GWh of electricity in 2018 from residential and non-residential uses.

Two electricity providers serve Sonoma County: Sonoma Clean Power (SCP) and Pacific Gas and Electric Company ("PG&E"). PG&E is also the natural gas provider for the entire county. SCP provides clean energy that is 97 percent carbon free, sourced from renewable energy (25 percent wind, 18 percent geothermal, and 8 percent solar), carbon-free hydroelectric power (46 percent), and general system power (3 percent). In conjunction with the utility companies, the California Public Utilities Commission (CPUC) is involved in energy conservation programs.

Petroleum

In 2021, the transportation sector used approximately 83 percent of the petroleum consumed in the State. Californians presently consume over 19 billion gallons of motor vehicle fuels per year. Though California's population and economy are expected to grow, gasoline demand is projected to decline from roughly 15.6 billion gallons in 2017 to between 12.1 billion and 12.6 billion gallons in 2030, a 19 percent to 22 percent reduction. This decline comes in response to both increasing vehicle electrification and higher fuel economy for new gasoline vehicles.

As shown in **Table 4-8**, approximately 214 million gallons of fuel were consumed in the county in 2018, of which approximately 192 million gallons were gasoline and approximately 22 million gallons were diesel fuel. This equates to approximately 0.59 million gallons of fuel per day or 1.2 gallons of fuel per person per day, based on a 2018 countywide population of 502,866 people.

Table 4-8: Annual and Daily Transportation Energy Consumption in Sonoma County

Fuel Type	2018 Annual Fuel Use (million gallons)	2018 Daily Fuel Use (million gallons)	2018 Daily Energy Use (billions of Btu)	2018 Daily per Capita Energy Use (thousands of Btu)
Gasoline	192	0.53	57.7	114.7
Diesel	22	0.06	7.7	15.3
Total	**214**	**0.59**	**65.4**	**130.0**
Btu=British thermal units				
Source: Rincon Consultants, 2024				

According to the CEC, one gallon of gasoline is equivalent to approximately 109,786 Btu, while one gallon of diesel is equivalent to approximately 127,460 Btu. Based on this formula, approximately 65.4 billion Btu in transportation fuel were consumed per day in 2018 in Sonoma County (see **Table 4-8**).

Impact Discussion

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact. During project construction, energy would be consumed in the form of petroleum-based fuels used to power off-road construction vehicles and equipment on the project area, construction workers travel to and from the project area, and vehicles used to deliver materials. In addition, the proposed project would require hauling material off-site during grading; vendor trips during building construction; and worker trips for all phases of construction, such as demolition, site preparation, grading, and paving.

The total gasoline and diesel fuel consumption during project construction was estimated using the assumptions and factors from CalEEMod used to estimate construction air emissions (**Appendix A**). **Table 4-9** presents the estimated construction phase energy consumption, indicating construction equipment and hauling and vendor trips would consume 18,106 gallons of diesel fuel and worker trips would consume about 1,356 gallons of other petroleum fuel over the proposed project construction period.

Table 4-9: Estimated Fuel Consumption during Construction

Fuel Type	Gallons of Fuel
Diesel Fuel (Construction Equipment)	18,027
Diesel Fuel (Hauling and Vendor Trips)	79
Other Petroleum Fuel (Worker Trips)	1,356
Total	**19,462**
Source: Rincon Consultants, 2024	

The construction energy estimates represent a conservative estimate as the construction equipment used in each construction phase was assumed to operate every day of construction. Construction equipment would be maintained to applicable standards, and construction activity and associated fuel consumption and energy use would be temporary and typical for construction sites. It is reasonable to assume contractors would avoid wasteful, inefficient, and unnecessary fuel consumption during construction to reduce construction costs. Therefore, the proposed project would not involve inefficient, wasteful, and unnecessary energy use during construction, and the construction phase impact related to energy consumption would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. As discussed above in **Regulatory Setting,** the 2022 Scoping Plan includes several goals and policies related to reduced energy and petroleum consumption and energy efficiency. Similar to the discussion provided in **Section 4.8, Greenhouse Gas Emissions,** the proposed project's consistency with these goals and policies related to Energy is discussed below. As discussed therein, the proposed project would be consistent with policies related to reduced energy and petroleum consumption and energy efficiency.

The proposed project's objectives include providing safe bicycle access and paths that promote pedestrian activity and alternative modes of transportation along Mirabel Road. This objective would, in turn, reduce overall energy consumption, mostly by the potential reduction in petroleum use from mobile sources. As such, the proposed project would be consistent with the 2022 Scoping Plan that states under Chapter 5, *Challenge Accepted,* "*[state funding] strategies aid in developing new technologies, in ramping up access for all, and in shifting to cleaner, modes of transport; for instance, by supporting investments in walkable, bikeable communities and transit, as well as in vehicles."* The proposed project would also allow for nearby residents to avoid vehicle trips (and thus petroleum use from mobile sources) into the area by providing dedicated bicycle lanes. Appendix D of the Scoping Plan discusses local actions that can occur to support State GHG reduction and energy efficiency goals. Included in this discussion is a key priority area of VMT reduction that calls for increasing *"public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking"* and *"amend(ing) zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development,"* which the proposed project would support. The proposed project's compliance with this reduction measure would also motivate a reduction in petroleum consumption by providing alternative modes of transportation in an accessible and safe manner.

Appendix E of the 2022 Scoping Plan, which discusses sustainable and equitable communities, states that part of the vision of the 2022 Scoping Plan to help meet the State carbon neutrality goal no later than 2045 and advance energy efficiency and equity is to provide "complete networks of safe and accessible bicycle and pedestrian infrastructure to make those modes of transportation the preferred travel mode for short distances." The proposed project would provide safe and accessible bicycle paths along a moderate stretch of road in Forestville. By providing new bicycle access, the proposed project would promote the reduction of vehicle travel, and therefore it would not lead to a substantial or measurable increase in VMT or increased petroleum consumption. Given that the proposed project would not add additional vehicle trips or energy consumption during operation, as well as the proposed project's emphasis on providing safe, designated bicycle lanes along Mirabel Road that would encourage an overall reduction in petroleum use from mobile sources, it the

proposed project would be consistent with the energy efficiency goals and vision of the 2022 Scoping Plan. Impacts would be less than significant.

Cumulative Impacts

The proposed project's fuel consumption during construction would be temporary and typical for a project of its size, with no evidence of inefficient, wasteful, or unnecessary energy use. As discussed above, construction activities, including equipment operation, worker commutes, and material deliveries, are estimated to use a moderate amount of fuel based on industry-standard modeling tools. The proposed project would adhere to applicable maintenance and efficiency standards, ensuring responsible energy use throughout construction.

In alignment with the 2022 Scoping Plan, the proposed project's design promotes reduced energy consumption and supports broader goals for energy efficiency and sustainable transportation. By incorporating safe and accessible bicycle infrastructure, the proposed project encourages alternative modes of transportation and reduces reliance on petroleum-based fuels. Given its focus on energy efficiency and minimal operational energy demands, the proposed project's cumulative energy impacts would be less than significant and consistent with state and local energy policies.

4.7 Geology/Soils

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	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:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				**X**
ii) Strong seismic ground shaking?			**X**	
iii) Seismic-related ground failure, including liquefaction?			**X**	
iv) Landslides?			**X**	
b) Result in substantial soil erosion or the loss of topsoil?			**X**	
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?			**X**	
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?			**X**	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				**X**

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

Regulatory Setting

Federal

The National Environmental Policy Act of 1969

The National Environmental Policy Act of 1969, (NEPA) as amended (Public Law [Pub. L.] 91-190, 42 United States Code [USC] 4321-4347, January 1, 1970, as amended by Pub. L. 94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258 § 4[b], Sept. 13, 1982) recognizes the continuing responsibility of the Federal Government to "preserve important historic, cultural, and natural aspects of our national heritage." (Sec. 101 [42 USC § 4321]) (#382). With the passage of the Paleontological Resources Preservation Act (2009), paleontological resources are considered to be a significant resource, and it is therefore now standard practice to include paleontological resources in NEPA studies in all instances where there is a possible impact.

State

Alquist-Priolo Earthquake Fault Zoning Act[12]

The Alquist-Priolo Earthquake Fault Zoning Act was passed following the 1971 San Fernando earthquake. The act regulates development in California near known active faults due to hazards associated with surface fault ruptures. Alquist-Priolo maps are distributed to affected cities, counties, and State agencies for their use in planning and controlling new construction. Areas within the Alquist-Priolo Earthquake Fault Zone require special studies to evaluate the potential for surface rupture to ensure that no structures intended for human occupancy are constructed across an active fault.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) was passed in 1990 following the 1989 Loma Prieta earthquake. The SHMA directs the California Geological Survey to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. The California Geological Survey has completed seismic hazard mapping for the portions of California most susceptible to liquefaction, landslides, and ground shaking, including the central San Francisco Bay Area. The SHMA requires that agencies only approve projects in seismic hazard zones following site-specific geotechnical investigations to determine if the seismic hazard is present and identify measures to reduce earthquake-related hazards.

[12] Alquist-Priolo Earthquake Fault Zoning Act. Stats. 1994. *Chapter 7.5. Earthquake Fault Zoning [2621 - 2630]*. Available: https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?division=2.&chapter=7.5.&lawCode=PRC. Accessed: July 3, 2023.

California Division of Occupational Safety and Health Regulations

Excavation, shoring, and trenching activities during construction are subject to occupational safety standards for stabilization by the California Department of Industrial Relations, Division of Occupational Safety and Health ("Cal-OSHA") under Title 8 of the California Code of Regulations and Excavation Rules. These regulations are designed to ensure proper stabilization of excavated areas, minimizing the risk of soil movement or collapse that could endanger workers on-site.

Public Resources Code Section 5097.5

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. They range from mammoth and dinosaur bones to impressions of ancient animals and plants, trace remains, and microfossils. These materials are valued for the information they yield about the history of the earth and its past ecological settings. California Public Resources Code Section 5097.5 specifies that unauthorized removal of a paleontological resource is a misdemeanor. Under the CEQA Guidelines, a project would have a significant impact on paleontological resources if it would disturb or destroy a unique paleontological resource or site or unique geologic feature.

California Penal Code Section 622.5

The California Penal Code Section 622.5 details the penalties for damage or removal of paleontological resources from private or public lands.

California Building Standards Code

The California Building Standards Code (CBC) prescribes standards for constructing safe buildings. The CBC contains provisions for earthquake safety based on factors including occupancy type, soil and rock profile, ground strength, and distance to seismic sources. The CBC requires that a site-specific geotechnical investigation report be prepared for most development projects to evaluate seismic and geologic conditions such as surface fault ruptures, ground shaking, liquefaction, differential settlement, lateral spreading, expansive soils, and slope stability. The CBC is updated every three years.

Regional

Sonoma County Emergency Operations Plan

The Sonoma County Emergency Operations Plan (EOP) is the foundation for disaster response and recovery operations for Sonoma County and outlines how the County complies with and implements the requirements of the California Emergency Services Act to protect the lives and property within Sonoma County. The Sonoma County EOP establishes the emergency organization, specifies policies and general procedures, and provides for coordination of the responsibilities of the County departments in all phases of an emergency or disaster. The Sonoma County EOP provides an overview of the Emergency Operations Center and outlines the various modes of activation of the EOP. Most provisions related to geology, soils, and seismic events are in the Hazard Analysis Summary of the EOP.

Existing Setting

The geology and soils along Mirabel Road reflect the area's location within a seismically active region and its variable susceptibility to soil-related geologic hazards. According to the USGS Earthquake Liquefaction Susceptibility Map, the majority of the project area is classified as having "very low"

liquefaction susceptibility.[13] However, the northern section of the project area is categorized as having "high" susceptibility to liquefaction. Additionally, mapping by the USGS identifies most of the area as having low to no susceptibility to landslides, with isolated areas near the northern portion of Mirabel Road exhibiting low to medium susceptibility.

The project area is not located within a designated Alquist-Priolo Earthquake Fault Zone, and no active or potentially active faults have been mapped crossing the project area. However, the region would be subject to strong seismic ground shaking from potential earthquakes originating along nearby faults, including the Healdsburg/Rodgers Creek Fault, Maacama Fault, San Andreas Fault, and West Napa Fault.[14]

Additionally, the project area is located in the Coast Ranges geomorphic province, one of the eleven geomorphic provinces of California. 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. The eastern side is characterized by strike-ridges and valleys in the Upper Mesozoic strata. Locally, the project area extends south from the Russian River just west of its confluence with Mark West Creek.

The geology of the region surrounding the project area was mapped by Delattre and Koehler, who identified five geologic units underlying the project area: artificial fill, Holocene stream terrace deposits, Holocene alluvial deposits, Wilson Grove Formation, and sandstone of the Franciscan Complex.

Impact Discussion

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The proposed project is not located within a designated Alquist-Priolo Earthquake Fault Zone, and no other active or potentially active faults have been mapped passing through the project area. The proposed project would not expose people or structures to potential substantial adverse effects, including risk of loss, injury, or death, involving rupture of a known earthquake fault. No impact would result.

ii. Strong seismic ground shaking?

Less Than Significant Impact. The proposed project is located in a region that would be subject to strong seismic ground shaking resulting from potential earthquakes along the Healdsburg/Rodgers Creek Fault, Maacama Fault, San Andreas Fault, West Napa Fault,

[13] United States Geological Survey (USGS). 2006. Liquefaction Susceptibility. Available at: https://earthquake.usgs.gov/education/geologicmaps/liquefaction.php. Accessed on: September 20, 2024.
[14] California Geological Survey (CGS). 2024. Fault Activity Map of California. Available at: https://maps.conservation.ca.gov/cgs/fam/ Accessed on: September 20, 2024.

and other active regional faults. Design and construction of the proposed project is subject to engineering standards of the CBC and local and state standards that consider soil properties and seismic ground shaking. By applying required geotechnical evaluation techniques and appropriate engineering practices, potential injury and damage from seismic activity would be diminished, thereby exposing fewer people and less property to the effects of a major damaging earthquake. The impact would be less than significant.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant Impact. According to the USGS Earthquake Liquefaction Susceptibility Map, most of the proposed project area falls within zones classified as having "very low" liquefaction susceptibility, while the northern section is categorized as having "high" susceptibility. The design and construction of the proposed project would be subject to engineering standards of the CBC and local and state standards and specifications that consider soil properties, including liquefaction. By applying required geotechnical evaluation techniques and appropriate engineering practices, potential injury and damage from seismically-induced liquefaction and ground failure would be diminished. The impact would be less than significant.

iv. Landslides?

Less Than Significant Impact. According to USGS mapping, the proposed project is located primarily in areas low to no susceptibility with isolated areas near the north portion Mirabel Road which ranges from low to medium susceptibility.[15] No steep hillsides or geologic structures known to be at risk of landslide have been identified adjacent to the project area. Therefore, the potential impact from landslides is considered less than significant.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Areas along the project area that would be disturbed during construction consist predominantly of engineered fill and previously disturbed and underlying soils highly altered from their original natural state. As a result, the proposed project would result in little disturbance to native topsoil.

Grading and earthwork activities during construction would expose soils to potential short-term erosion by wind and water. However, erosion and sediment control provisions of the County Construction Grading and Drainage Ordinance (Zoning Code Chapter 11) and Storm Water Quality Ordinance (Zoning Code Chapter 11A) require implementation of best management practices to reduce runoff and erosion. In addition, because the proposed project would disturb more than one acre, a SWPPP would be developed in accordance with the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. The SWPPP would identify best management practices to be implemented to prevent soil erosion during construction and to stabilize the site at the end of construction. These requirements would ensure that potential project impacts on soil erosion would be less than significant.

[15] United States Geological Survey (USGS). 2024. USGS Landslide Hazard Map Viewer. Available at: https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=ae120962f459434b8c904b456c82669d. Accessed on: September 2024.

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?

Less Than Significant Impact. As described above, areas along the project area to be disturbed during construction consist predominantly of engineered fill and previously disturbed and underlying soils. The design and construction of the proposed project would be subject to engineering standards of the CBC and local and state standards that consider soil properties. By applying required geotechnical evaluation techniques and appropriate engineering practices, potential impacts from unstable soils would be diminished. The impact would be less than significant

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?

Less Than Significant Impact. As described above, areas along the project area to be disturbed during construction consist predominantly of engineered fill and previously disturbed and underlying soils. The design and construction of the proposed project would be subject to engineering standards of the CBC and local and state standards that consider soil properties, including expansive soil. By applying required geotechnical evaluation techniques and appropriate engineering practices, potential impacts from expansive soils would be diminished. The impact would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The proposed project does not involve installation or use of septic tanks or alternative wastewater disposal systems. No impact would result.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Construction

Less Than Significant with Mitigation Incorporated. Ground-disturbing activities within previously undisturbed sediments with high paleontological sensitivity could result in significant impacts to paleontological resources under CEQA. Impacts would be significant if construction activities result in the destruction, damage, or loss of scientifically important paleontological resources and associated stratigraphic and paleontological data. The Wilson Grove Formation is the only high-sensitivity geologic unit within the project area. However, the entire area underlain by the Wilson Grove Formation represents areas previously used for agriculture (i.e., south of Trenton Road), meaning that these sediments are disturbed to a depth of 2 feet.

The project will require grading for the widened roadway and Class I bike path construction that will reach approximately 1.25 feet below the surface. This activity is not anticipated to significantly impact paleontological resources, because the only areas mapped as a high-sensitivity geologic unit (i.e., Wilson Grove Formation) are disturbed to a depth of 2 feet. Excavations for drainage infrastructure and retaining walls is anticipated to reach up to 5 feet below the surface. If these

activities occur in areas mapped as the Wilson Grove Formation, they could significantly impact paleontological resources. Implementation of Mitigation Measure GEO-1 would address those potential impacts to be less than significant by educating construction personnel on the appearance of paleontological resources; monitoring for paleontological resources; and, if discovered, recovering, identifying, and curating paleontological resources: would reduce the potential impact to undiscovered paleontological resources to a less-than-significant level by addressing discovery of unanticipated buried resources and preserving and/or recording those resources consistent with appropriate laws and requirements.

Mitigation Measure

MM GEO-1: **Paleontological Resources Monitoring**

Qualified Professional Paleontologist. Prior to excavation, the project applicant shall retain a Qualified Professional Paleontologist, as defined by the Society of Vertebrate Paleontology to direct mitigation measures related to paleontological resources.

Paleontological Worker Environmental Awareness Program. Prior to the start of construction, the Qualified Professional Paleontologist or their designee shall conduct a paleontological Worker Environmental Awareness Program training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction personnel.

Paleontological Monitoring and Salvage. Full-time paleontological monitoring shall be conducted during ground-disturbing construction activities within previously undisturbed sediments exceeding 2 feet in depth in areas mapped as the Wilson Grove Formation. Paleontological monitoring shall be conducted by a paleontological monitor with experience with collection and salvage of paleontological resources and who meets the minimum standards of the Society of Vertebrate Paleontology for a Paleontological Resources Monitor.

The Qualified Professional Paleontologist may recommend that monitoring be reduced in frequency or ceased entirely based on geologic observations. Such decisions shall be subject to review and approval by the County of Sonoma. In the event of a fossil discovery by the paleontological monitor or construction personnel, all construction activity within 50 feet of the find shall cease, and the Qualified Professional Paleontologist shall evaluate the find. If the fossil(s) is (are) not scientifically significant, then construction activity may resume. If it is determined that the fossil(s) is (are) scientifically significant, the following shall be completed:

- The paleontological monitor shall salvage (excavate and recover) the fossil to protect it from damage/destruction. Typically, fossils can be safely salvaged quickly by a single paleontological monitor with minimal disruption to construction activity. In some cases, larger fossils (such as

complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. Bulk matrix sampling may be necessary to recover small invertebrates or microvertebrates from within paleontologically sensitive deposits. After the fossil(s) is (are) salvaged, construction activity may resume.

- Fossils shall be identified to the lowest (most-specific) possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection along with all pertinent field notes, photographs, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the Qualified Professional Paleontologist.

Upon completion of ground-disturbing activities (or laboratory preparation and curation of fossils, if necessary), the Qualified Professional Paleontologist shall prepare a final report describing the results of the paleontological monitoring efforts. The report shall include a summary of the field and laboratory methods employed; an overview of project geology; and, if fossils were discovered, an analysis of the fossils, including physical description, taxonomic identification, and scientific significance. The report shall be submitted to the County of Sonoma and, if fossil curation occurred, the designated scientific institution.

Operation

No Impact. Following construction, no earthwork would occur. No operational impact would result.

Cumulative Impacts

Geology and soil-related impacts are generally site-specific and are determined by a particular on-sites soil characteristics, proximity to faults, topography, and proposed land uses. Development projects are analyzed on an individual basis and must comply with established requirements of the applicable jurisdiction's development standards and the CBC as they pertain to protection against known geologic hazards and potential geologic and soil-related impacts.

Cumulative effects related to geology resulting from the implementation of future development of the proposed project as well as surrounding areas could expose more persons and property to potential impacts due to seismic activity. Long-term impacts related to geology include the exposure of people to the potential for seismically induced ground shaking. Implementation of other cumulative projects would incrementally increase the number of people and structures subject to a seismic event. Seismic and geologic significance is considered on a project-by-project basis through the preparation of design-level geotechnical studies. The potential for any project to be affected by or any project to exacerbate and existing geotechnical hazard would be minimized or not occur through strict engineering guidelines as they pertain to protection against known geologic hazards and potential geologic and soil-related impacts.

Development of the proposed project as well as all past, present, and future projects would be required to be constructed in accordance with the latest edition of the CBC and to adhere to all current earthquake construction standards, including those relating to soil characteristics set forth by the County. Therefore, no elements of the proposed would contribute to any cumulatively considerable

geologic and/or soils impacts. Therefore, cumulative effects of increased seismic risk would be less than significant.

4.8 Greenhouse Gas Emissions

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	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?			**X**	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				**X**

The following discussion is based in part on the Air Quality, Greenhouse Gas Emissions, and Energy Study prepared for the proposed project in December 2024. A copy of this report is included as **Appendix A** to this Initial Study.

Regulatory Setting

Federal

Federal GHG Emissions Regulation

The U.S. Supreme Court in Massachusetts et al. v. Environmental Protection Agency et al. ([2007] 549 U.S. 497) held that the U.S. EPA has the authority to regulate motor-vehicle GHG emissions under the federal Clean Air Act. The U.S. EPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines and requires annual reporting of emissions. In 2012, the U.S. EPA issued a Final Rule that establishes the GHG permitting thresholds that determine when Clean Air Act permits under the New Source Review Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs are required for new and existing industrial facilities.

In 2014, the U.S. Supreme Court in Utility Air Regulatory Group v. EPA (134 S. Ct. 2427 [2014]) held that U.S. EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a major source required to obtain a PSD or Title V permit. The Court also held that PSD permits that are otherwise required (based on emissions of other pollutants) may continue to require limitations on GHG emissions based on the application of best available control technology.

Safer Affordable Fuel-Efficient Vehicle Rule

On September 27, 2019, the U.S. EPA and the National Highway Safety Administration published the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program." The Part One

Rule revokes California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. To account for the effects of the Part One Rule, CARB released off- model adjustment factors on November 20, 2019, to adjust criteria air pollutant emissions outputs from the Emission Factor ("EMFAC") model. The Final SAFE Rule (i.e., Part Two) then relaxed federal GHG emissions and Corporate Average Fuel Economy standards to increase in stringency at only about 1.5 percent per year from model year 2020 levels over model years 2021-2026. The previously established emission standards and related fuel economy standards would have achieved about four percent per year improvements through model year 2025. Therefore, CARB has prepared off- model CO_2 emissions adjustment factors for both the EMFAC2014 and EMFAC2017 models to account for the impact of the SAFE Vehicles Rule. With the incorporation of these adjustment factors, operational emission factors for CO_2 generated by light-duty automobiles, light- duty trucks, and medium-duty trucks associated with project-related vehicle trips may increase by approximately one percent (in 2020) up to as much as 17 percent (in 2050) compared to non- adjusted estimates. These increases would not alter the significance of the operational GHG emissions from development facilitated by the proposed project as discussed further below.

Federal Clean Air Act

The U.S. Supreme Court determined in Massachusetts et al. v. U.S. EPA et al. ([2007] 549 U.S. 05-1120) that the U.S. EPA has the authority to regulate motor vehicle GHG emissions under the federal Clean Air Act. The U.S. EPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines and requires annual reporting of emissions. In 2012, the U.S. EPA issued a Final Rule that established the GHG permitting thresholds that determine when Clean Air Act permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities.

In Utility Air Regulatory Group v. U.S. EPA (134 Supreme Court 2427 [2014]), the U.S. Supreme Court held the U.S. EPA may not treat GHGs as an air pollutant for purposes of determining whether a source can be considered a major source required to obtain a Prevention of Significant Deterioration or Title V permit. The Court also held that Prevention of Significant Deterioration permits otherwise required based on emissions of other pollutants may continue to require limitations on GHG emissions based on the application of Best Available Control Technology.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for

consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

U.S. Environmental Protection Agency Endangerment Finding

The U.S. EPA's authority to regulate GHG emissions stems from the U.S. Supreme Court decision in Massachusetts v. EPA (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence, it was found that six GHGs constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and the U.S. EPA's assessment of the scientific evidence that form the basis for the U.S. EPA's regulatory actions.

Federal Vehicle Standards

In response to the U.S. Supreme Court ruling discussed above, Executive Order 13432 was issued in 2007 directing the U.S. EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the U.S. EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, an Executive Memorandum was issued directing the Department of Transportation, Department of Energy, U.S. EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the U.S. EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the U.S. EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the U.S. EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baseline.[16]

In August 2016, the U.S. EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.

[16]U.S. EPA and NHTSA, *Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium and Heavy-Duty Engines and Vehicles – Phase 2,* 2016. Available at: https://www.gpo.gov/fdsys/pkg/FR-2016-10-25/pdf/2016-21203.pdf. (Accessed July 14, 2023).

On September 27, 2019, the U.S. EPA and the NHTSA published the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program." (84 Fed. Reg. 51,310 (Sept. 27, 2019.)[17] The SAFE Rule (Part One) revoked California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On March 31, 2020, the U.S. EPA and NHTSA finalized rulemaking for SAFE Part Two sets CO_2 emissions standards and corporate average fuel economy (CAFE) standards for passenger vehicles and light duty trucks, covering model years 2021-2026. The current U.S. EPA administration repealed SAFE Rule Part One, effective January 28, 2022, and is reconsidering Part Two.

In December 2021, the U.S. EPA finalized federal GHG emissions standards for passenger cars and light trucks for Model Years 2023 through 2026. These standards are the strongest vehicle emissions standards ever established for the light-duty vehicle sector and are based on sound science and grounded in a rigorous assessment of current and future technologies. The updated standards will result in avoiding more than three billion tons of GHG emissions through 2050.[18]

State

California Air Resources Board

CARB is responsible for the coordination and oversight of state and local air pollution control programs in California. There are numerous regulations aimed at reducing the state's GHG emissions. These initiatives are summarized below. For more information on the Senate and Assembly Bills, executive orders, building codes, and reports discussed below, and to view reports and research referenced below, please refer to the following websites: https://www.energy.ca.gov/data-reports/reports/californias-fourth-climate-change-assessment, www.arb.ca.gov/cc/cc.htm, and https://www.dgs.ca.gov/BSC/Codes.

California's Advanced Clean Cars program (Assembly Bill 1493)

AB 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost- effective reduction of GHG emissions from motor vehicles." On June 30, 2009, U.S. EPA granted the waiver of Clean Air Act preemption to California for its GHG emission standards for motor vehicles beginning with the 2009 model year. Pavley I regulates model years from 2009 to 2016 and

Pavley II, which is now referred to as "Low Emission Vehicle III GHG", regulates model years from 2017 to 2025. The Advanced Clean Cars program coordinates the goals of the Low Emission Vehicle, Zero Emissions Vehicles, and Clean Fuels Outlet programs, and would provide major reductions in GHG emissions. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels. The implementation of these rules is currently delayed due to the SAFE Vehicle Rule, described under Federal Regulations.

[17] U.S. EPA and NHTSA, Federal Register, Vol. 84, No. 188, *The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program*, September 27, 2019. Available at: https://www.govinfo.gov/content/pkg/FR-2019-09-27/pdf/2019-20672.pdf. (Accessed July 14, 2023).

[18] U.S. EPA, *Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026,* 2021. Available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions. (Accessed July 14, 2023).

California Global Warming Solutions Act of 2006 (Assembly Bill 32 And Senate Bill 32)

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 million metric tons (MMT of carbon dioxide equivalent [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. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since the Scoping Plan's approval.

The CARB approved the 2013 Scoping Plan update in May 2014. The update defined the CARB's climate change priorities for the next five years, set the groundwork to reach post-2020 statewide goals, and highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the State's longer term GHG reduction strategies with other State policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use.

On September 8, 2016, the governor signed 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, the 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. The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally appropriate quantitative thresholds consistent with statewide per capita goals of six metric tons (MT) of CO_2e by 2030 and two MT of CO_2e by 2050. As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, sub-regional, or regional level), but not for specific individual projects because they include all emissions sectors in the State.

The California Climate Crisis Act (Assembly Bill 1279)

AB 1279 was passed on September 16, 2022, and declares the State would achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045. In addition, the bill directs the state to ensure that by 2045, statewide anthropogenic greenhouse gas emissions are reduced to at least 85 percent below the 1990 levels. The bill would require updates to the scoping plan (once every five years) to implement various policies and strategies that enable carbon dioxide removal solutions and carbon capture, utilization, and storage technologies.

2022 Update to The Climate Change Scoping Plan

In response to the passage of AB 1279 and the identification of the 2045 GHG reduction target, CARB published the Final 2022 Climate Change Scoping Plan in November 2022. The 2022 Update builds upon

the framework established by the 2008 Climate Change Scoping Plan and previous updates while identifying new, technologically feasible, cost-effective, and equity-focused path to achieve California's climate target. The 2022 Update includes policies to achieve a significant reduction 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 (NWL) to reduce emissions and sequester carbon, and the capture and storage of carbon.

The 2022 Update assesses the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan, addresses recent legislation and direction from Governor Newsom, extends and expands upon these earlier plans, and implements a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045, as well as taking an additional step of adding carbon neutrality as a science-based guide for California's climate work. As stated in the 2022 Update, "The plan outlines how carbon neutrality can be achieved by taking bold steps to reduce GHGs to meet the anthropogenic emissions target and by expanding actions to capture and store carbon through the State's NWL and using a variety of mechanical approaches". Specifically, the 2022 Update:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 and a reduction in anthropogenic emissions by 85 percent below 1990 levels.
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California's most impacted communities as driving principles throughout the document.
- Incorporates the contribution of NWL to the State's GHG emissions, as well as their role in achieving carbon neutrality.
- Relies on the most up-to-date science, including the need to deploy all viable tools to address the existential threat that climate change presents, including carbon capture and sequestration, as well as direct air capture.
- Evaluates the substantial health and economic benefits of taking action.
- Identifies key implementation actions to ensure success.

In addition to reducing emissions from transportation, energy, and industrial sectors, the 2022 Update includes emissions and carbon sequestration in NWL and explores how NWL contribute to long-term climate goals. Under the Scoping Plan Scenario, California's 2030 emissions are anticipated to be 48 percent below 1990 levels, representing an acceleration of the current SB 32 target. Cap-and-Trade regulation continues to play a large factor in the reduction of near-term emissions for meeting the accelerated 2030 reduction target. Every sector of the economy will need to begin to transition in this decade to meet our GHG reduction goals and achieve carbon neutrality no later than 2045. The 2022 Update approaches decarbonization from two perspectives, managing a phasedown of existing energy sources and technologies, as well as increasing, developing, and deploying alternative clean energy sources and technology.

Assembly Bill 1757

Signed on September 16, 2022, AB 1757 requires State agencies to develop a range of targets for natural carbon sequestration and nature-based climate solutions that reduce GHG emissions to meet the 2030, 2038, and 2045 goals which would be integrated into a scoping plan addressing natural and working lands.

Senate Bill 1368

SB 1368 is the companion bill of AB 32, which directs the CPUC to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 limits carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. The new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the state. The CPUC adopted the regulations required by SB 1368 on August 29, 2007. The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, for 1,100 pounds of CO_2 per megawatt-hour.

Senate Bill 150

Signed on October 10, 2017, SB 150, Regional Transportation Plans, aligns local and regional GHG reduction targets with State targets (i.e., 40 percent below their 1990 levels by 2030). SB 150 creates a process to include communities in discussions on how to monitor their regions' progress on meeting these goals. The bill also requires the CARB to regularly report on that progress, as well as on the successes and the challenges regions experience associated with achieving their targets. SB 150 provides for accounting of climate change efforts and GHG reductions and identify effective reduction strategies.

Senate Bill 100

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 97

SB 97, signed in August 2007, added Section 21083.05 to and repealed Section 21097 from the PRC. This bill acknowledges that climate change is an environmental issue that requires analysis in CEQA documents. In March 2010, the California Natural Resources Agency adopted amendments to the CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and climate change impacts.

Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (SB 375), signed in August 2008, enhances the State's ability to reach AB 32 goals by directing the CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPO) are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the MPO's Regional Transportation Plan.

Qualified projects consistent with an approved SCS or Alternative Planning Strategy (categorized as "transit priority projects") can receive incentives to streamline CEQA processing.

On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The Association of Bay Area Governments (ABAG) was assigned targets of a 3 percent reduction in per capita GHG emissions from passenger vehicles by 2020 and a 6 percent reduction in per capita GHG emissions from passenger vehicles by 2035.

Senate Bill 1383

Adopted in September 2016, SB 1383 (Lara, Chapter 395, Statues of 2016) requires the CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. SB 1383 requires the strategy to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels
- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

SB 1383 also requires the California Department of Resources Recycling and Recovery ("CalRecycle"), in consultation with the CARB, to adopt regulations that achieve specified targets for reducing organic waste in landfills.

Clean Energy, Jobs, and Affordability Act of 2022 (Senate Bill 1020)

Adopted on September 16, 2022, SB 1020 creates clean electricity targets for eligible renewable energy resources and zero-carbon resources to supply 90 percent of retail sale electricity by 2035, 95 percent by 2040, 100 percent by 2045, and 100 percent of electricity procured to serve all state agencies by 2035. This bill states that to achieve this, carbon emissions should not be increased elsewhere in the western grid.

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs using executive orders. Although not regulatory, they set the state's tone and guide the actions of state agencies.

Executive Order S-3-05

Executive Order S-3-05 was issued on June 1, 2005, which established the following GHG emissions reduction targets:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order S-01-07

Issued on January 18, 2007, Executive Order S-01-07 mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. The executive order established a Low Carbon Fuel Standard and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, CARB, the University of

California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. CARB adopted the Low Carbon Fuel Standard on April 23, 2009

Executive Order B-55-18

On September 10, 2018, Governor Brown issued Executive Order B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

Executive Order B-30-15

Issued on April 29, 2015, Executive Order B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of MMT CO_2e. The 2030 target acts as an interim goal on the way to achieving reductions of 80 percent below 1990 levels by 2050, a goal set by Executive Order S-3-05. The executive order also requires the state's climate adaptation plan to be updated every three years and for the state to continue its climate change research program, among other provisions. With the enactment of SB 32 in 2016, the Legislature codified the goal of reducing GHG emissions by 2030 to 40 percent below 1990 levels.

Executive Order N-79-20

On September 23, 2020, Governor Newsom issued EO N-79-20, which established the following new statewide goals:

- All new passenger cars and trucks sold in-state to be zero-emission by 2035;
- All medium- and heavy-duty vehicles in the State to be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks; and
- All off-road vehicles and equipment to be zero-emission by 2035 where feasible.

EO N-79-20 directs CARB, the Governor's Office of Business and Economic Development, the CEC, the California Department of Transportation, and other State agencies to take steps toward drafting regulations and strategies and leveraging agency resources toward achieving these goals.

California Building Standards Code

The CCR Title 24 is referred to as the California Building Standards Code. It consists of a compilation of several distinct standards and codes related to building construction including plumbing, electrical, interior acoustics, energy efficiency, and handicap accessibility for persons with physical and sensory disabilities. The current iteration is the 2022 Title 24 standards. The California Building Standards Code's energy-efficiency and green building standards are outlined below.

Part 6 – Building Energy Efficiency Standards/Energy Code. CCR Title 24, Part 6 is the Building Energy Efficiency Standards or California Energy Code. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings to reduce California's energy demand. New construction and major renovations must demonstrate their compliance with the current Energy Code through submittal and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC. The 2022 Title 24 standards are the applicable building energy efficiency standards for the proposed project because they became effective on January 1, 2023.

Part 11 – California Green Building Standards. The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11, first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 California Building Standards Code). The 2022 CALGreen includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures. It also includes voluntary tiers with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory CALGreen standards and may adopt additional amendments for stricter requirements.

The mandatory standards applicable to the proposed project require:

- 20 percent reduction in indoor water use relative to specified baseline levels;
- Waste Reduction:
    - Non-residential: Reuse and/or recycling of 100 percent of trees, stumps, rocks, and associated vegetation soils resulting from primary land clearing;
- Inspections of energy systems to ensure optimal working efficiency;
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards;
- EV Charging for New Construction:
    - Non-residential land uses shall comply with the following EV charging requirements based on the number of passenger vehicle parking spaces:
        - 0-9: no EV capable spaces or charging stations required;
        - 10-25: 4 EV capable spaces but no charging stations required;
        - 26-50: 8 EV capable spaces of which 2 must be equipped with charging stations;
        - 1-75: 13 EV capable spaces of which 3 must be equipped with charging stations;
        - 76-100: 17 EV capable spaces of which 4 must be equipped with charging stations;
        - 101-150: 25 EV capable spaces of which 6 must be equipped with charging stations;
        - 151-200: 35 EV capable spaces of which 9 must be equipped with charging stations; and
        - More than 200: 20 percent of the total available parking spaces of which 25 percent must be equipped with charging stations;
    - Non-residential land uses shall comply with the following EV charging requirements for medium- and heavy-duty vehicles: warehouses, grocery stores, and retail stores with planned off-street loading spaces shall install EV supply and distribution equipment, spare raceway(s) or busway(s) and adequate capacity for transformer(s), service panel(s), or subpanel(s) at the time of construction based on the number of off-street loading spaces as indicated in Table 5.106.5.4.1 of the California Green Building Standards;
- Bicycle Parking:
    - Non-residential short-term bicycle parking for projects anticipated to generate visitor traffic: permanently anchored bicycle racks within 200 feet of visitor entrance for five percent of new visitor motorized vehicle parking spaces with a minimum of one 2-bike capacity rack; and/or
    - Non-residential buildings with tenant spaces of 10 or more employees/tenant-occupants: secure bicycle parking for five percent of the employee/tenant-occupant vehicle parking spaces with a minimum of one bicycle parking facility.

- Shade Trees (Non-Residential):
    - Surface parking: minimum No. 10 container size or equal shall be installed to provide shade over 50 percent of the parking within 15 years (unless parking area covered by appropriate shade structures and/or solar);
    - Landscape areas: minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years; and/or
- Hardscape areas: minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years (unless covered by applicable shade structures and/or solar or the marked area is for organized sports activities).

The voluntary Tier I and Tier II standards require:

- Tier I:
    - Stricter energy efficiency requirements;
    - Stricter water conservation requirements for specific fixtures;
    - minimum 65 percent reduction in construction waste with third-party verification, Minimum 10 percent recycled content for building materials;
    - Minimum 20 percent permeable paving;
    - Minimum 20 percent cement reduction;
- Tier II:
    - Stricter energy efficiency requirements,
    - Stricter water conservation requirements for specific fixtures;
    - Minimum 75 percent reduction in construction waste with third-party verification
    - Minimum 15 percent recycled content for building materials;
    - Minimum 30 percent permeable paving; and/or
    - Minimum 25 percent cement reduction.

CARB Scoping Plan

Adopted December 15, 2022, CARB's 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. To achieve the targets of AB 1279, the 2022 Scoping Plan relies on existing and emerging fossil fuel alternatives and clean technologies, as well as carbon capture and storage. Specifically, the 2022 Scoping Plan focuses on zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high global warming potentials (GWP); providing communities with sustainable options for walking, biking, and public transit; displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen. The 2022 Scoping Plan sets one of the most aggressive approaches to reach carbon neutrality in the world. Unlike the 2017 Scoping Plan, CARB no longer includes a numeric per capita threshold and instead advocates for compliance with a local GHG reduction strategy (i.e., Climate Action Plan) consistent with CEQA Guidelines section 15183.5.

The key elements of the 2022 CARB Scoping Plan focus on transportation. Specifically, the 2022 Scoping Plan aims to rapidly move towards zero-emission transportation (i.e., electrifying cars, buses, trains, and trucks), which constitutes California's single largest source of GHGs. The regulations that impact the transportation sector are adopted and enforced by CARB on vehicle manufacturers and are outside the jurisdiction and control of local governments. The 2022 Scoping Plan accelerates development of new regulations as well as amendments to strengthen regulations and programs already in place.

Included in the 2022 Scoping Plan is a set of Local Actions (2022 Scoping Plan Appendix D) aimed at providing local jurisdictions with tools to reduce GHGs and assist the state in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan includes a section on evaluating plan-level and project-level alignment with the State's Climate Goals in CEQA GHG analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development in order to determine consistency with the 2022 Scoping Plan. Notably, this section is focused on Residential and Mixed-Use Projects. CARB specifically states that Appendix D does not address other land uses (e.g., industrial). However, CARB plans to explore new approaches for other land use types in the future.

As such, it would be inappropriate to apply the requirements contained in Appendix D of the 2022 Scoping Plan to any land use types other than residential or mixed-use residential development.

California Integrated Waste Management Act (Assembly Bill 341)

The California Integrated Waste Management Act of 1989, as modified by AB 341 in 2011, requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows: (1) diversion of 25 percent of all solid waste by January 1, 1995, through source reduction, recycling, and composting activities and (2) diversion of 50 percent of all solid waste on and after January 1, 2000.

Regional

Northern Sonoma County Air Pollution Control District

NoSoCo Air participates in an advisory role to help planners and local government with complex air quality issues, including GHGs. NoSoCo Air commonly assists planners with zoning and land use; to assist in the establishment of GHG thresholds; to prevent and address air quality nuisances, and to identify potential pollution impacts to sensitive communities. NoSoCo Air also crafts incentive programs with GHG reduction co-benefits under its Vehicle Pollution Mitigation Program, state Carl Moyer Program, and other non-permit funded programs. For example, NoSoCo Air's 3-2-1 Go Green! EV incentive program reduces GHGs by removing combustion vehicles from the roads and supports development of an EV charging infrastructure. NoSoCo Air's 3-2-1 Burn Clean! wood stove program destroys old dirty stoves, reduces black soot, a climate change pollutant, and provides an option to electrify heating. The Carl Moyer program provides options to remove dirty diesel engines from operation with cleaner engines or conversion to electric operation.

Sonoma County Regional Climate Action Plan 2016

In 2016, Sonoma County adopted the Climate Action 2020 and Beyond Regional Climate Action Plan (CAP) which establishes the County GHG reduction goals below 1990 levels: 25 percent by 2020, 40 percent by 2030, and 80 percent by 2050, consistent with the state requirements. The CAP outlines the reduction efforts in six major GHG source areas, including building energy, transportation and land use, solid waste, water and wastewater, livestock and fertilizer, and advanced climate initiatives. Notably, based on projections from the 2010 GHG inventory, Sonoma County is not expected to meet the 2015 goal of 25 percent below 1990 levels. Furthermore, the County's population is projected to increase by 5 percent between 2010 and 2020, and employment is projected to increase by 13 percent over the same period. The two main factors which influence the growth of GHG emissions in the County are from population and economic growth.

Sonoma County Climate Change Action Resolution

The Regional Climate Protection Authority (RCPA) was formed in 2009 to coordinate countywide climate protection efforts among the County's nine cities and multiple agencies. The RCPA helps to set goals, pools resources, and formalizes partnerships in the county as it aims to create local solutions to complement State, federal, and private sector actions. Coordinating with RCPA, the Sonoma County Board of Supervisors adopted the Climate Change Action Resolution. The resolution is intended to help create countywide consistency and clear guidance about coordinated implementation of the GHG reduction measures.

The resolution includes 54 measures and actions to reduce carbon emissions from County operations and to increase carbon storage on County-owned lands. The measures and actions were informed by climate-related studies, strategies, and plans developed by the County and its partners, and align with their recommendations. Key among these are the Regional Climate Protection Authority's 2021 Climate Mobilization Strategy, Sonoma Water's 2021 Climate Adaptation Plan, the 2021 Sonoma County Multijurisdictional Hazard Mitigation Plan, the 2022 Sonoma County Climate Resilient Lands Strategy, the 2023 Sonoma County Community Wildfire Protection Plan, transportation studies, fleet transition plans, energy audits, and other documents, including a Climate Action and Resiliency Plan being developed for Regional Parks.

The measures and actions are organized under six sectors: Energy (10 measures), Transportation (13 measures), Waste (10 measures), Water (8 measures) Wildfire (7 measures), and Natural & Working Lands (7 measures). There is a description of important background and policy considerations for each sector.

Sonoma County General Plan 2020

Section 8 of the Open Space and Resource Conservation Element of the County General Plan contains energy goals that would have the effect of reducing GHG emissions, including:

Goal OSRC-14: Promote energy conservation and contribute to energy demand reduction in the County.

> **Objective OSRC-14.1:** Increase energy conservation and improve energy efficiency in County government operations.
>
> **Objective OSRC-14.2:** Encourage County residents and businesses to increase energy conservation and improve energy efficiency.
>
> **Objective OSRC-14.3:** Reduce the generation of solid waste and increase solid waste reuse and recycling.
>
> **Objective OSRC-14.4:** Reduce greenhouse gas emissions by 25 percent below 1990 levels by 2015. vehicles for the County vehicle fleet; and encourage County residents and businesses to do the same.
>
> **Policy OSRC-14d:** Support project applicants in incorporating cost effective energy efficiency that may exceed State standards.
>
> **Policy OSRC-14e:** Develop energy conservation and efficiency design standards for new development.

Policy OSRC-14f: Use the latest green building certification standards, such as the Leadership in Energy and Environmental Design (LEED) standards, for new development.

Policy OSRC-14g: Develop a Greenhouse Gas Emissions Reduction Program, as a high priority, to include the following:

(1) A methodology to measure baseline and future VMT and greenhouse gas emissions

(2) Targets for various sectors including existing development and potential future development of commercial, industrial, residential, transportation, and utility sources

(3) Collaboration with local, regional, and State agencies and other community groups to identify effective greenhouse gas reduction policies and programs in compliance with new State and Federal standards

(4) Adoption of development policies or standards that substantially reduce emissions for new development

(5) Creation of a task force of key department and agency staff to develop action plans, including identified capital improvements and other programs to reduce greenhouse gases and a funding mechanism for implementation

(6) Monitoring and annual reporting of progress in meeting emission reduction targets

Policy OSRC-14i: Manage timberlands for their value both in timber production and offsetting greenhouse gas emissions.

Plan Bay Area

Plan Bay Area 2050 is a state-mandated, integrated long-range transportation, land-use, and housing plan that would support a growing economy, provide more housing and transportation choices and reduce transportation-related pollution in the nine-county San Francisco Bay Area. Plan Bay Area 2050 serves the region's Sustainable Communities Strategy and builds on earlier efforts to develop an efficient transportation network and grow in a financially and environmentally responsible way. Plan Bay Area 2050 focuses on advancing equity and improving resiliency in the Bay Area by creating strategies in the following four elements: Housing, Economy, Transportation, and Environment. Plan Bay Area 2050 discusses how the future is uncertain due to anticipated employment growth, lack of housing options, and outside forces, such as climate change and economic turbulence. These uncertainties will impact growth in the Bay Area and exacerbate issues for those who are historically and systemically marginalized and underserved and excluded. Thus, Plan Bay Area 2050 has created strategies and considered investments that will serve those systemically underserved communities and provide equitable opportunities. Plan Bay Area 2050 presents a total of 35 strategies to outline how the $1.4 trillion investment would be utilized. The strategies include, but are not limited to, the following: providing affordable housing, allowing higher-density in proximity to transit-corridors, optimizing the existing roadway network, creating complete streets, providing subsides for public transit, reducing climate emissions, and expanding open space area. To bring these strategies to fruition, it will require participation by agencies, policymakers, and the public. An implementation plan is also included as part of Plan Bay Area 2050 to assess the requirements needed to carry out the strategies, identify the roles

of pertinent entities, create an appropriate method to implement the strategies, and create a timeline for implementation.

Existing Setting

Greenhouse Gas Overview

Gases that absorb and re-emit infrared radiation in the atmosphere are called GHGs. The gases that are widely seen as the principal contributors to human-induced climate change include CO_2, methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons, and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

Different types of GHGs have varying GWP. The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emitted, CO_2e, which is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 30, meaning its global warming effect is 30 times greater than CO_2 on a molecule per molecule basis.[19]

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. The term "climate change" is often used interchangeably with the term "global warming," but climate change is preferred because it conveys that other changes are happening in addition to rising temperatures. The baseline against which these changes are measured originates from historical records that identify temperature changes that occurred in the past, such as during previous ice ages.

The global climate is changing continuously, as evidenced in the geologic record which indicates repeated episodes of substantial warming and cooling. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming over the past 150 years. The IPCC expressed that the rise and continued growth of atmospheric CO_2 concentrations is unequivocally due to human activities in the IPCC's Sixth Assessment Report (2021).

Human influence has warmed the atmosphere, ocean, and land, which has led the climate to warm at an unprecedented rate in the last 2,000 years. It is estimated that between the period of 1850 through 2019, that a total of 2,390 gigatonnes of anthropogenic CO_2 was emitted. It is likely that anthropogenic activities have increased the global surface temperature by approximately 1.07 degrees Celsius (°C) between the years 2010 through 2019.

[19] The Intergovernmental Panel on Climate Change's (2021) Sixth Assessment Report determined that methane has a GWP of 30. However, the 2017 Climate Change Scoping Plan published by the California Air Resources Board uses a GWP of 25 for methane, consistent with the Intergovernmental Panel on Climate Change's (2007) Fourth Assessment Report. Therefore, this analysis utilizes a GWP of 25.

Greenhouse Gas Emissions Inventory

Global Emissions Inventory

In 2015, worldwide anthropogenic GHG emissions totaled 47,000 MMT of CO_2e, which is a 43 percent increase from 1990 GHG levels. Specifically, 34,522 MMT of CO_2e of CO_2, 8,241 MMT of CO_2e of CH4, 2,997 MMT of CO_2e of N_2O, and 1,001 MMT of CO_2e of fluorinated gases were emitted in 2015. The largest source of GHG emissions were energy production and use (includes fuels used by vehicles and buildings), which accounted for 75 percent of the global GHG emissions. Agriculture uses and industrial processes contributed 12 percent and six percent, respectively. Waste sources contributed three percent. These sources account for approximately 96 percent.

United States Emissions Inventory

U.S. GHG emissions were 6,347.7 MMT of CO_2e in 2021 or 5,593.5 MMT CO_2e after accounting for sequestration. Emissions increased by 6.8 percent from 2020 to 2021. The increase from 2020 to 2021 reflects the was driven by an increase in CO_2 emissions from fossil fuel combustion which increased 7 percent relative to previous years and is primarily due to the economic rebounding after the COVID-19 Pandemic. In 2020, the energy sector (including transportation) accounted for 81 percent of nationwide GHG emissions while agriculture, industrial and waste accounted for approximately 10 percent, 6 percent and 3 percent respectively.

California Emissions Inventory

Based on CARB California Greenhouse Gas Inventory for 2000-2020, California produced 369.2 MMT of CO_2e in 2020, which is 35.3 MMT of CO_2e lower than 2019 levels. The 2019 to 2020 decrease in emissions is likely due in large part to the impacts of the COVID-19 pandemic. The major source of GHG emissions in California is the transportation sector, which comprises 37 percent of the state's total GHG emissions. The industrial sector is the second largest source, comprising 20 percent of the state's GHG emissions while electric power accounts for approximately 16 percent.

The magnitude of California's total GHG emissions is due in part to its large size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions as compared to other states is its relatively mild climate. In 2016, the state of California achieved its 2020 GHG emission reduction target of reducing emissions to 1990 levels as emissions fell below 431 MMT of CO_2e. The annual 2030 statewide target emissions level is 260 MT of CO_2e.

Sonoma County Emissions Inventory

In July 2020, the RCPA updated the Sonoma County GHG inventory for the year 2018 emissions. The RCPA established a baseline communitywide GHG inventory for calendar year 2010 and 1990 as part of the Climate Action 2020 and Beyond development process. The RCPA completed a 2018 inventory update to help track progress towards achieving the short and long-term emissions reduction goals established in Climate Action 2020 and Beyond. Unincorporated Sonoma County emissions in 2018 were 0.858 Air Quality, Greenhouse Gas Emissions, and Energy Study 17 MMT CO_2e, slightly above 2015 emissions of 0.850 MMT CO_2e. Relative to 1990 emissions, 2018 emissions decreased by 20 percent. For Sonoma County as a whole, on-road transportation was the largest GHG emissions sector, followed by building energy use, and livestock and fertilizer.

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources though potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. The year 2022 was the sixth warmest year since global records began in 1880 at 0.86°C (1.55 Fahrenheit [°F]) above the 20th century average of 13.9°C (57.0°F). This value is 0.13°C (0.23°F) less than the record set in 2016 and it is only 0.02°C (0.04°F) higher than the last year's (2021) value, which now ranks as the seventh highest. Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature obtained from station observations jointly indicate that Land Surface Air Temperature and sea surface temperatures have increased. Due to past and current activities, anthropogenic GHG emissions are increasing global mean surface temperature at a rate of 0.2°C per decade. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades.

Potential impacts of climate change in California may include reduced water supply from snowpack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years. California's Fourth Climate Change Assessment includes regional reports that summarize climate impacts and adaptation solutions for nine regions of the state and regionally specific climate change case studies. However, while there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. A summary follows some of the potential effects that climate change could generate in California.

Air Quality

Scientists project that the annual average maximum daily temperatures in California could rise by 2.4 to 3.2°C (4.3°F to 5.8°F) in the next 50 years and by 3.1 to 4.9°C (5.6°F to 8.8°F) in the next century. Higher temperatures are conducive to air pollution formation, and rising temperatures could therefore result in worsened air quality in California. As a result, climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. In addition, as temperatures have increased in recent years, the area burned by wildfires throughout the state has increased, and wildfires have occurred at higher elevations in the Sierra Nevada Mountains. If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality could worsen. Severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state. With increasing temperatures, shifting weather patterns, longer dry seasons, and more dry fuel loads, the frequency of large wildfires and area burned is expected to continue to increase.

Water Supply

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future precipitation trends and water supplies in California. Year-to-year variability in statewide precipitation levels has increased since 1980, meaning that wet and dry precipitation extremes have become more common. This uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between

climate change and its potential effect on water demand is not well understood. The average early spring snowpack in the western U.S., including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 0.15 meter along the central and southern California coasts. The Sierra Nevada Mountains snowpack provides the majority of California's water supply as snow that accumulates during wet winters is released slowly during the dry months of spring and summer. A warmer climate is predicted to reduce the fraction of precipitation that falls as snow and the amount of snowfall at lower elevations, thereby reducing the total snowpack. Projections indicate that the average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern California will decline by approximately 66 percent from its historical average by 2050.

Hydrology and Sea Level Rise

Climate change could affect the intensity and frequency of storms and flooding. Furthermore, climate change could induce substantial sea level rise in the coming century. Rising sea level increases the likelihood of and risk from flooding. The rate of increase of global mean sea levels between 1993 to 2022, observed by satellites, is approximately 3.4 millimeters per year, double the twentieth century trend of 1.6 millimeters per year. Global mean sea levels in 2013 were about 0.23 meter higher than those of 1880. Sea levels are rising faster now than in the previous two millennia, and the rise will probably accelerate, even with robust GHG emission control measures. The most recent IPCC report predicts a mean sea level rise ranging between 0.25 to 1.01 meters by 2100 with the sea level ranges dependent on a low, intermediate, or high GHG emissions scenario. A rise in sea levels could erode 31 to 67 percent of southern California beaches and cause flooding of approximately 370 miles of coastal highways during 100-year storm events. This would also jeopardize California’s water supply due to saltwater intrusion and induce groundwater flooding and/or exposure of buried infrastructure. Furthermore, increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture

California has an over $51 billion annual agricultural industry that produces over a third of the country’s vegetables and three-quarters of the country’s fruits and nuts. Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent, which would increase water demand as hotter conditions lead to the loss of soil moisture. In addition, crop yield could be threatened by water-induced stress and extreme heat waves, and plants may be susceptible to new and changing pest and disease outbreaks. Temperature increases could also change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality.

Ecosystems

Climate change and the potential resultant changes in weather patterns could have ecological effects on the global and local scales. Soil moisture is likely to decline in many regions with higher temperatures, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals: timing of ecological events; geographic distribution and range of species; species composition and the incidence of nonnative species within communities; and ecosystem processes, such as carbon cycling and storage.

Impact Discussion

The vast majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to significant cumulative effects, even if individual changes resulting from a project are limited. As a result, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15064[h][1]).

CEQA Guidelines Section 15064.4 recommends that lead agencies quantify GHG emissions of projects and consider several other factors that may be used in the determination of significance of GHG emissions from a project, including the extent to which the proposed project may increase or reduce GHG emissions; whether a project exceeds an applicable significance threshold; and the extent to which the proposed project complies with regulations or requirements adopted to implement a plan for the reduction or mitigation of GHG emissions.

CEQA Guidelines Section 15064.4 does not establish a threshold of significance. Lead agencies have the discretion to establish significance thresholds for their respective jurisdictions, and in establishing those thresholds, a lead agency may appropriately look to thresholds developed by other public agencies, or suggested by other experts, as long as any threshold chosen is supported by substantial evidence (see CEQA Guidelines Section 15064.7[c]). The CEQA Guidelines also clarify that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15130[f]). As a note, the CEQA Guidelines were amended in response to SB 97. In particular, the CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the proposed project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem in the geographic area of the proposed project. To qualify, such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of GHG emissions." Therefore, a lead agency can make a finding of less-than significant for GHG emissions if a project complies with adopted programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.

Neither NoSoCo Air, the Office of Planning and Research, CARB, California Air Pollution Control Officers Association, nor any other State or applicable regional agency has adopted a numerical significance threshold for assessing GHG emissions that is applicable to the proposed project. The County's Climate Change Action Resolution would not be considered a qualified GHG reduction plan. BAAQMD provides qualitative GHG emissions thresholds that are based upon project design features applicable to construction of a building (e.g., electrification of a building and installation of electric vehicle chargers); therefore, this threshold would not be applicable to a project that adds bicycle lanes to an existing

roadway. Therefore, this analysis evaluates the proposed project's potential to result in a significant GHG emissions or climate change impact through its consistency with plans and polices adopted for the purposes of reducing GHG emissions and mitigating the effects of climate change, specifically the 2022 Scoping Plan. This analysis also quantifies the proposed project's GHG emissions for informational purposes.

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. Construction of the proposed project would generate temporary GHG emissions primarily as a result of operation of construction equipment on-site, as well as from vehicles transporting construction workers to and from the project area and heavy trucks to transport soil export. As shown in **Table 4-10**, construction of the proposed project would generate an estimated total of 201 MT of CO_2e. Amortized over a 30-year period, construction of the proposed project would generate an estimated total of 6.7 MT of CO_2e per year. The GHG-related impact would be less than significant.

Table 4-10: Estimated GHG Emissions during Construction

Year	
Total	201
Amortized over 30 years	**6.7**
MT = metric tons; CO2e = carbon dioxide equivalents See Appendix A for modeling results.	
Source: Rincon Consultants, 2024	

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. The proposed project's objectives include providing safe bicycle access and paths that promote pedestrian activity and alternative modes of transportation along Mirabel Road. This objective would be consistent with the 2022 Scoping Plan that states under Chapter 5, Challenge Accepted, "*[state funding] strategies aid in developing new technologies, in ramping up access for all, and in shifting to cleaner, modes of transport; for instance, by supporting investments in walkable, bikeable communities and transit, as well as in vehicles.*" The proposed project would also allow for nearby residents to avoid vehicle trips into the area by providing dedicated bicycle lanes. Appendix D of the Scoping Plan discusses local actions that can occur to support State GHG reduction goals. Included in this discussion is a key priority area of VMT reduction that calls for increasing "*public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking*" and "*amend(ing) zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development,*" which the proposed project would support. Appendix E of the 2022 Scoping Plan, which discusses sustainable and equitable communities, states that part of the vision of the 2022 Scoping Plan to help meet the State carbon neutrality goal no later than 2045 and advance equity is to provide "*complete networks of safe and accessible bicycle and pedestrian infrastructure to make those modes of transportation the preferred*

travel mode for short distances." The proposed project would provide safe and accessible bicycle paths along a stretch of road in Forestville. Given the proposed project's overall emphasis on providing a safe, designated bicycle lanes along Mirabel Road, it would be consistent with the alternative transportation goals and vision of the 2022 Scoping Plan. No impact would result.

Cumulative Impacts

An individual project of this size and nature is generally not significant enough on its own to influence climate change or make a substantial contribution to the global GHG inventory. GHG impacts are understood to be exclusively cumulative, as there are no non-cumulative GHG emission impacts from a climate change perspective. The incremental GHG emissions from the proposed project would not foreseeably result in a cumulatively considerable contribution to global climate change. Furthermore, the proposed project, along with other related cumulative projects, would comply with all applicable regulatory requirements, further reducing GHG emissions. Consequently, the proposed project would not conflict with any GHG reduction plans. Therefore, the proposed project's cumulative GHG emissions contribution would be less than significant, and its cumulative GHG impacts would not be cumulatively considerable.

4.9 Hazards & Hazardous Materials

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	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?			**X**	
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?			**X**	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			**X**	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			**X**	
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?				**X**
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		**X**		

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?		X		

Regulatory Setting

Federal

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Over five years, $1.6 billion was collected and the tax went to a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites. CERCLA accomplished the following objectives:

- Established prohibitions and requirements concerning closed and abandoned hazardous waste sites;
- Provided for liability of persons responsible for releases of hazardous waste at these sites; and
- Established a trust fund to provide for cleanup when no responsible party could be identified.

The law authorizes two kinds of response actions:

- Short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response;
- Long-term remedial response actions, that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life-threatening. These actions can be conducted only at sites listed on U.S. EPA's National Priorities List.

CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA), enacted in 1976, is the principal Federal law in the United States governing the disposal of solid waste and hazardous waste. The RCRA gives U.S. EPA the authority to control hazardous waste from "cradle to grave" This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid waste.

The Federal Hazardous and Solid Waste Amendments are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for

releases. Some of the other mandates of this law include increased enforcement authority for the U.S. EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.

United States Department of Transportation

The United States Department of Transportation has the regulatory responsibility for the safe transportation of hazardous materials between states and internationally. The United States Department of Transportation regulations govern all means of transportation, except for those packages shipped by mail, which are covered by United States Postal Service regulations. The federal RCRA of 1976 imposes additional standards for the transport of hazardous waste.

State

Government Code Section 65962.5

Section 65962.5 of the Government Code requires California Environmental Protection Agency ("CalEPA") to develop and update a list of hazardous waste and substances sites, known as the Cortese List. The Cortese List is used by State and local agencies and developers to comply with CEQA requirements. The Cortese List includes hazardous substance release sites identified by the Department of Toxic Substances Control (DTSC) and State Water Resources Control Board (SWRCB).

California Environmental Protection Agency

One of the primary State agencies that regulate hazardous materials is CalEPA. CalEPA is authorized by the U.S. EPA to enforce and implement certain federal hazardous materials laws and regulations. The California DTSC, a department of the CalEPA, protects California and its residents from exposure to hazardous waste, primarily under the authority of the RCRA and the California Health and Safety Code. The DTSC requirements include the need for written programs and response plans, such as Hazardous Materials Business Plans. The DTSC programs include dealing with aftermath clean-ups of improper hazardous waste management, evaluation of samples taken from sites, enforcement of regulations regarding use, storage, and disposal of hazardous materials, and encouragement of pollution prevention.

Regional

North Coast Regional Water Quality Control Board

The Porter-Cologne Water Quality Control Act established the SWRCB and divided the state into nine regional basins, each under the jurisdiction of a RWQCB. The North Coast Region RWQCB – Region 1 regulates water quality in the Southeast Greenway Area. The North Coast RWQCB has the authority to require groundwater investigations and/or remedial action if the quality of groundwater or surface waters of the state are threatened.

Bay Area Air Quality Management District

The BAAQMD has primary responsibility for control of air pollution from sources other than motor vehicles and consumer products. The latter are typically the responsibility of CalEPA and the CARB. The BAAQMD is responsible for preparation of attainment plans for non-attainment criteria pollutants, control of stationary air pollutant sources, and issuance of permits for activities, including demolition and renovation activities affecting asbestos-containing materials (District Regulation 11, Rule 2) and lead (District Regulation 11, Rule 1). The BAAQMD's boundaries embrace the southern part of Sonoma County, including the Southeast Greenway Area.

Sonoma County Department of Health Services, Environmental Health and Safety Branch

A Certified Unified Program Agency (CUPA) is a local agency that has been certified by CalEPA to implement the local Unified Program. The CUPA can be a County, City, or joint powers authority. A participating agency is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction on behalf of the CUPA. The Sonoma County Fire and Emergency Services Department Hazardous Materials Division is the certified CUPA for the County of Sonoma, including the Town of Forestville and vicinity. Funding for this Division is provided through fees charged to the businesses, which are regulated by the County under these CUPA programs.

Existing Setting

There are no schools located or proposed within a one-quarter mile of the project area; however, Laguna High School and Forestville School Academy are within approximately one mile to the east. A search of the Cortese List, which identifies hazardous waste sites, revealed two Leaking Underground Storage Tank (LUST) cleanup sites in the vicinity: Speers Market, located at 7891 Mirabel Road, directly adjacent to the east of the project area, and Dave's Pit Stop, located at 7001 Highway 116, southeast of the project area.[20] Both sites have been remediated, and their cases are recorded as closed. The project area is not located within an airport land use plan or within two miles of a public airport or public-use airport. The nearest airport, Charles M. Schulz–Sonoma County Airport, is approximately nine miles southeast of the project area.

The project area falls within County Evacuation Zone SON-4B1, as designated by Sonoma County.[21] Emergency management policies and procedures for this zone are governed by the Sonoma County EOP, which outlines organizational and operational concepts for emergency response and recovery. This plan assigns responsibilities to various agencies and committees to ensure effective management of emergencies, including wildfire evacuations.

According to CAL FIRE's Fire Hazard Severity Zone mapping, the project area is within a Local Responsibility Area (LRA) and has been designated as having a "high" wildfire risk under the Sonoma County Wildfire Risk Index.[22] However, the Sonoma County Wildfire Hazard Index identifies portions of the Mirabel Road project area as crossing zones categorized as having low to moderate relative wildfire hazard. These classifications inform planning and preparedness for fire mitigation efforts in the area.

Impact Discussion

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Construction activities would involve the use of fuels, lubricants, paints, and other similar materials. Such materials are commonly used during construction, are not acutely hazardous, and would be used in small quantities. During construction, hazardous materials

[20] EnviroStor. 2024. EnviroStor. Available at: https://www.envirostor.dtsc.ca.gov/public/map/?global_id=07790001. Accessed on: September 2024.
[21] Sonoma County GIS. 2024. Evacuation Zones Map SON-4B1. Available at: https://socogisweb.sonomacounty.ca.gov/images/dem/evacuation_zone_maps/Evacuation_Zones_SON-4B1.pdf. Accessed on: September 2024.
[22] Esri. 2023. California's Fire Hazard Severity Zones. Available at: https://storymaps.arcgis.com/stories/a64d596a8be941c8b28263718880e433. Accessed on: September 2024.

used, stored, or transported would be required to follow standard safety protocols (as determined by the U.S. EPA, California Department of Health and Safety, and Sonoma County). Soil management and disposal procedures would be implemented in accordance with applicable local, state and federal regulations. As discussed in Impact (d) below, the potential for construction activities to encounter residual soil or groundwater contamination associated with a hazardous materials clean-up site is considered low. The construction-related impact would be less than significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact. The proposed project would not involve any materials or conditions that would result in the risk of upset or accident that would release hazardous materials into the environment. Examples of project types that may involve such risk could include refineries, fuel storage, or tanker transportation, where accidents could result in catastrophic environmental or human consequences. The proposed project would not involve such risk or circumstances.

Proper use of materials in accordance with local, state, and federal requirements, and as required in the construction documents, would minimize the potential for accidental releases or emissions from hazardous materials during construction. Caltrans and the California Highway Patrol regulate the transportation of hazardous materials and wastes, including container types and packaging requirements, as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers. The Cal-OSHA enforces hazard communication program regulations which contain worker safety training and hazard information requirements, such as procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees. Because contractors would be required to comply with existing and future hazardous materials laws and regulations addressing the transport, storage, use, and disposal of hazardous materials, the potential to create a significant hazard from accidental conditions during construction would be less than significant.

Operation of the proposed project would not result in the use of hazardous materials. Long-term operation and maintenance of Mirabel Road and the storm drain system would be performed by existing County staff as part of ongoing routine maintenance. No long-term operational impact would result.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. There are no schools located or proposed within a one-quarter mile of the project area. Therefore, the proposed project would not be expected to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. Laguna High School and Forestville School Academy are within a mile of the project area.

Construction would include the use of fuels, lubricants, degreasers, paints, solvents and similar materials, all of which are common to construction, are not acutely hazardous, and would be used in small quantities. Numerous laws regulate transportation, use, storage, and disposal of hazardous

materials (see Impacts [a] and [b] above). Although construction activities could result in the inadvertent release of small quantities of construction chemicals, there are no schools withing one-quarter mile of the proposed project. In any case, a spill or release within the proposed project area is not expected to endanger individuals at a nearby school given the nature of the materials and the small quantities that would be used. Contractors would be required to comply with existing and future hazardous materials laws and regulations covering the transport, use, and disposal of hazardous materials, and based on the nature and quantity of the hazardous materials to be potentially used by the proposed project, the impact related to the use of hazardous materials during construction within one-quarter mile of a school would be less than significant.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less Than Significant Impact. The provisions in Government Code Section 65962.5 are commonly referred to as the "Cortese List." A search of the Cortese List was completed to determine if any known hazardous waste sites have been recorded on or adjacent to the project area. These include:

- Department of Toxic Substances Control EnviroStor database;
- List of LUST Sites from the Water Board GeoTracker database;
- List of solid waste disposal sites identified by the Water Board with waste constituents above hazardous waste levels;
- List of "active" Cease and Desist Orders and Cleanup and Abatement Orders from the Water Board; and
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.

The review indicates that two LUST clean up sites, Speers Market, and Dave's Pit Stop, are located in the vicinity of the project area. According to records, both site cases are closed. No other adjacent properties have been identified as hazardous materials sites in the Cortese List data resources. The impact would be less than significant.

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?

No Impact. The proposed project is not located within an airport land use plan or within two miles of a public airport or public use airport. The nearest airport is the Charles M. Schulz–Sonoma County Airport, located approximately 9 miles southeast of the proposed project. No impact would result.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Construction

Less Than Significant with Mitigation Incorporated. Mirabel Road in the project area is within

Forestville and is within County Evacuation Zone SON-4B1. During construction, the normal functionality of Mirabel Road would be temporarily altered with partial lane closures and traffic controls to accommodate construction activities, which could have a potentially significant impact on emergency evacuation. Implementation of Mitigation Measure HAZ-1, described below, would ensure adequate traffic access for the public and emergency responders during construction and during a potential evacuation scenario, reducing the impact to less than significant.

Mitigation Measure

MM HAZ-1: Minimize Emergency Evacuation Impacts during Construction

During construction, the County and its contractor shall implement traffic controls to ensure Mirabel Road remains a viable emergency evacuation route, including:

- During construction, at least one lane in each direction of Mirabel Road shall be kept open at all times. Through traffic shall be maintained through temporary signals, flaggers or other means.
- Access to driveways and public and private roads shall be maintained, as feasible, by using steel trench plates. If access must be restricted for brief periods (more than one hour), property owners shall be notified by the County and its contractor in advance of such closures.
- Construction shall be coordinated with emergency service providers and administrators of land uses that may be more affected by traffic impacts, such as fire stations, schools, hospitals, and ambulance providers. As construction progresses, emergency providers, and other land uses as mentioned above, shall be notified in advance of construction of the timing, location, and duration of construction activities and the locations and durations of any temporary detours and/or lane closures.
- The contractor shall be required to have ready the means necessary to accommodate access by emergency vehicles, such as plating over excavations, flaggers or other means.
- The contractor shall coordinate traffic control plans with other simultaneous construction projects along Mirabel Road, if any, to minimize impacts to congestion, emergency access, and alternative modes of transportation.

Operation

No Impact. Operation of the proposed project would not impair or interfere with the County's emergency response plan or established evacuation travel routes. Mirabel Road would be restored and fully functional as an evacuation travel route following construction. No operational impact would result.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Construction

Less Than Significant with Mitigation Incorporated. According to the Sonoma County Wildfire Hazard Index, Mirabel Road project area crosses an area categorized as a low to moderate relative hazard area. If construction activity occurs during the dry season, it is possible that accidental fire ignition could occur related to use of heavy machinery. Because vegetation along the project area could be dry during construction, and because of the close proximity of nearby residences and other land uses, the construction-related impact is considered significant. Implementation of Mitigation Measure HAZ-2, described below, would require the use of construction techniques that would reduce the likelihood of wild land fires during construction to less than significant.

Operation

No Impact. Following construction, disturbed areas would be restored, and the proposed project would not increase the risk of wild land fires. No operational impact would result.

Mitigation Measure

MM HAZ-2: **Reduce Wildland Fire Hazards**

At the start of construction, the County and its contractor shall remove or clear away dry, combustible vegetation from within the area of direct impact. Grass and other vegetation less than 18 inches in height above the ground shall be maintained in the construction area where necessary to stabilize the soil and prevent erosion. Vehicles shall not be parked in areas where exhaust systems contact combustible materials. Fire extinguishers shall be available to assist in quickly extinguishing any small fires, and contractors shall have on site the direct phone number for the local fire departments.

Cumulative Impacts

As noted above, the proposed project would not result in significant impacts related to hazards or hazardous materials. Impacts associated with hazardous materials are often site-specific and localized. The database searches performed through Envirostor and Geotracker document the findings of various governmental database searches regarding properties with known or suspected releases of hazardous materials or petroleum hydrocarbons and serves as the basis for defining the cumulative impacts study area. Although some of the cumulative projects and other future projects associated with buildout of the surrounding communities could have potential impacts associated with hazardous materials, the environmental concerns associated with hazardous materials are typically site specific.

Projects are required to address any issues related to hazardous materials or waste. Projects must adhere to applicable regulations for the use, transport, and disposal of hazardous materials and implement mitigation in compliance with Federal, State, and local regulations to protect against site contamination by hazardous materials. Compliance with all applicable Federal, State, and local regulations related to hazardous materials would ensure that the routine transport, use, or disposal of hazardous materials would not result in adverse impacts. Any demolition activities associated with

projects that affect asbestos or lead based paint would also occur in compliance with SCAQMD Rule 1403 and the Cal-OSHA Construction Safety Orders, which would ensure that hazardous materials impacts would be less than significant. Additionally, site-specific investigations would be conducted at sites where contaminated soil or groundwater could occur to minimize the exposure of workers and the public to hazardous substances.

4.10 Hydrology/Water Quality

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	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?			**X**	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			**X**	
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?			**X**	
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			**X**	
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?			**X**	
iv. Impede or redirect flood flows?			**X**	

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

Regulatory Setting

Federal

Federal Clean Water Act

Individual projects that disturb more than one acre of soil are required to obtain coverage under the NPDES program as part of the California General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit). The NPDES program, established under the Clean Water Act (CWA), regulates discharges of pollutants into U.S. waters to protect water quality. The Construction General Permit specifically requires the development and implementation of a SWPPP to control stormwater runoff and minimize pollution. The SWPPP must describe best management practices (BMPs) to prevent and retain stormwater runoff, include a visual monitoring program, a chemical monitoring program for "non-visible" pollutants if BMPs fail, and a sediment monitoring plan if the site discharges to a 303(d)-listed waterbody for sediment impairment.

Section 401 of the CWA requires that any activity resulting in discharge into waters of the U.S. be certified by the RWQCB to ensure compliance with State and federal water quality standards. Section 404 of the CWA authorizes the U.S. Army Corps of Engineers to regulate the discharge of dredged or fill material into waters of the U.S. and adjacent wetlands, emphasizing avoidance of discharges where possible and requiring minimization or mitigation where avoidance is not feasible. Additionally, Section 303(d) of the CWA requires states to establish Total Maximum Daily Load (TMDL) programs for impaired waters that do not meet specific water quality standards.

Applicants for construction projects disturbing one or more acre of soil are required to file for coverage under the State Water Resources Control Board (SWRCB), Order No. 99-08-DWQ, NPDES General Permit No. CAS000002 for Discharges of Stormwater Runoff Associated with Construction Activity (General Permit). By adhering to these NPDES requirements, project proponents contribute to protecting surface waters from pollutants and ensuring compliance with water quality regulations.

National Flood Insurance Program/Flood Disaster Protection Act

The National Flood Insurance Act of 1968 made flood insurance available for the first time. The Flood Disaster Protection Act of 1973 made the purchase of flood insurance mandatory for the protection of property located in Special Flood Hazard Areas. These laws are relevant because they led to mapping of

regulatory floodplains and to local management of floodplain areas according to guidelines that include prohibiting or restricting development in flood hazard zones.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1967 requires the SWRCB and the nine RWQCBs to adopt water quality criteria to protect State waters. These criteria include the identification of beneficial uses, narrative and numerical water quality standards, and implementation procedures. The Water Quality Control Plan, or Basin Plan, protects designated beneficial uses of State waters through the issuance of waste discharge requirements and through the development of TMDLs. Anyone proposing to discharge waste that could affect the quality of the waters of the State must make a report of the waste discharge to the RWQCB or SWRCB as appropriate, in compliance with the Porter-Cologne Act.

Statewide Construction General Permit

The SWRCB has implemented an NPDES General Construction Permit for the State of California (Construction General Permit). For projects disturbing one acre or more of soil, a NOI and SWPPP must be prepared by a qualified professional prior to commencement of construction. The Construction General Permit includes requirements for training, inspections, record keeping, and, for projects of certain risk levels, monitoring. The general purpose of the requirements is to minimize the discharge of pollutants and to protect beneficial uses and receiving waters from the adverse effects of construction-related storm water discharges.

Sustainable Groundwater Management Act

In September 2014, Governor Brown signed legislation requiring that California's critical groundwater resources be sustainably managed by local agencies. The Sustainable Groundwater Management Act gives local agencies the power to sustainably manage groundwater and requires Groundwater Sustainability Plans to be developed for medium- and high-priority groundwater basins. While the project area is supported by a groundwater basin, the area is not within a Groundwater Sustainability Agency.

Antidegradation Policy

California's antidegradation policy, formally known as the Statement of Policy with Respect to Maintaining High Quality Waters in California, restricts degradation of surface and ground waters. It protects waters where existing water quality is higher than necessary for the protection of beneficial uses. Any actions with the potential to adversely affect water quality must be consistent with the maximum benefit to the people of the State; not unreasonably affect present and anticipated beneficial use of the water; and not result in water quality less than prescribed in water quality plans and policies.

Cobey-Alquist Floodplain Management Act

The Cobey-Alquist Floodplain Management Act (Water Code Section 8400 et seq.) gives support to the National Flood Insurance Program by encouraging local governments to plan, adopt, and enforce land use regulations for floodplain management, to protect people and property from flooding hazards. The Act also identifies requirements that jurisdictions must meet to receive State financial assistance for flood control.

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code, Section 10610 et seq.), which requires urban water suppliers to develop water management plans to actively pursue the efficient use of available supplies. This Act also requires the provision of water service to be affordable to lower income households (Section 10631.1). Every five years, water suppliers are required to develop Urban Water Management Plans (UWMP) to identify short- term and long-term water demand management measures to meet growing water demands. Sweetwater Springs Water District current UWMP was updated in June 2021.

State Water Conservation Requirements

Executive Order B-37-16 established a new water use efficiency framework for California. The order bolstered the state's drought resilience and preparedness by establishing longer-term water conservation measures that include permanent monthly water use reporting, new urban water use targets, reducing system leaks and eliminating clearly wasteful practices, strengthening urban drought contingency plans, and improving agricultural water management and drought plans. Based on monthly water use reporting, most urban water suppliers reported sufficient supplies to meet demand in three additional dry years and are not subject to state conservation mandates. On February 8, 2017, SWRCB adopted an emergency water conservation regulation to amend and extend the May 2016 regulation. The amended regulation allows certain suppliers the opportunity to submit or resubmit their water supply reliability assessments.

Regional

Municipal Separate Storm Sewer System

The RWQCB issues stormwater discharge permits, including the Phase I Municipal Separate Storm Sewer System ("MS4") permit (Order R1-2015-0030), which applies to areas within the North Coast Region RWQCB, encompassing Forestville as part of Sonoma County. The County of Sonoma, along with Sonoma Water, implements the MS4 permit to manage stormwater in unincorporated areas like Forestville. These MS4 programs enforce BMPs to reduce pollutants in stormwater discharges from municipal separate storm sewer systems, aiming to protect local water quality and adhere to sustainable stormwater management standards.

Low Impact Development Manual

The 2017 Storm Water Low Impact Development (LID) Technical Design Manual provides technical guidance for project designs that require the implementation of permanent BMPs. This manual supersedes the 2005 Standard Urban Storm Water Mitigation Plan and satisfies Order R1-2015-0030, NPDES Permit CA0025054. The County of Sonoma, as a co-permittee, implements the LID Manual on projects within the unincorporated county, including areas like Forestville.

Water Quality Control Plans

The NCRWQCB completed a Water Quality Control Plan (WQCP) for the North Coast Region in June 2018 (North Coast RWQCB 2018). This plan applies to the project area. WQCPs identify the beneficial uses for water bodies within the respective regions and provides implementation actions and strategies to achieve the water quality objectives set forth in the WQCPs.

Sonoma County General Plan

The County General Plan was adopted by the Sonoma County Board of Supervisors Resolution 08- 0808 on September 23, 2008. The County General Plan includes broad goals and policies aimed at protecting the county's water supply and water quality and protecting against flood hazards. Goals and policies from the County General Plan are provided below.

Goal WR-1: Protect, restore, and enhance the quality of surface and groundwater resources to meet the needs of all reasonable beneficial uses.

> **Objective WR-1.2:** *Avoid pollution of stormwater, water bodies and groundwater.*
>
> **Policy WR-1c:** Prioritize stormwater management measures in coordination with the RWQCB direction, focusing first upon watershed areas that are urbanizing and watersheds with impaired water bodies. Work cooperatively with the RWQCBs to manage the quality and quantity of stormwater runoff from new development and redevelopment in order to:
>
> 1. Prevent, to the maximum extent practicable, pollutants from reaching stormwater conveyance systems.
> 2. Ensure, to the maximum extent practicable, that discharges from regulated municipal storm drains comply with water quality objectives.
> 3. Limit, to the maximum extent practicable, stormwater from post development sites to pre- development quantities.
> 4. Conserve and protect natural areas to the maximum extent practicable.
>
> **Policy WR-1g:** Minimize deposition and discharge of sediment, debris, waste and other pollutants into surface runoff, drainage systems, surface water bodies, and groundwater.
>
> **Policy WR-1h:** Require grading plans to include measures to avoid soil erosion and consider upgrading requirements as needed to avoid sedimentation in stormwater to the maximum extent practicable.
>
> **Policy WR-1q:** Require new development projects to evaluate and consider naturally occurring and human caused contaminants in groundwater.

Goal WR-2: Manage groundwater as a valuable and limited shared resource.

> **Objective WR-2.3:** Encourage new groundwater recharge opportunities and protect existing groundwater recharge areas.
>
> **Objective WR-2.5:** Avoid additional land subsidence caused by groundwater extraction.
>
> **Policy WR-2e:** Require proof of groundwater with a sufficient yield and quality to support proposed uses in Class 3 and 4 water areas.1 Require test wells or the establishment of community water systems in Class 4 water areas. Test wells may be required in Class 3 areas. Deny discretionary applications in Class 3 and 4 areas unless a hydrogeologic report establishes that groundwater quality and quantity are adequate and will not be adversely impacted by the cumulative amount of development and uses allowed in the area, so that the proposed use will not cause or exacerbate an overdraft condition in a groundwater basin or subbasin. Procedures

for proving adequate groundwater should consider groundwater overdraft, land subsidence, saltwater intrusion, and the expense of such study in relation to the water needs of the project.

Goal WR-4: Increase the role of conservation and safe, beneficial reuse in meeting water supply needs of both urban and rural users.

Objective WR-4.1: Increase the use of recycled water where it meets all applicable regulatory standards and is the appropriate quality and quantity for the intended use.

Objective WR-4.2: Promote and encourage the efficient use of water by all water users.

Objective WR-4.3: Conserve and recognize stormwater as a valuable resource.

Policy WR-4b: Use water effectively and reduce water demand by developing programs to:

1. Increase water conserving design and equipment in new construction, including the use of design and technologies based on green building principles,
2. Educate water users on water conserving landscaping and other conservation measures,
3. Encourage retrofitting with water conserving devices,
4. Design wastewater collection systems to minimize inflow and infiltration, and
5. Reduce impervious surfaces to minimize runoff and increase groundwater recharge.

Policy WR-4e: Require water conserving plumbing and water conserving landscaping in all new development projects and require water conserving plumbing in all new dwellings. Promote programs to minimize water loss and waste by public water suppliers and their customers. Require County operated water systems to minimize water loss and waste.

Policy WR-4g: Require that development and redevelopment projects, where feasible, retain stormwater for on-site use that offsets the use of other water.

Goal PS-2: Reduce existing flood hazards and prevent unnecessary exposure of people and property to risks of damage or injury from flood hazards.

Objective PS-2.2: Regulate new development to reduce the risks of damage and injury from known flooding hazards to acceptable levels.

Policy PS-2e: Expand the County's zero net fill requirements to address all areas of the unincorporated County that are located within the 100-year Federal Emergency Management Agency (FEMA) special flood hazard area.

Policy PS-2f: Preserve floodplain storage capacity by avoiding fill in areas outside of the 100-year FEMA special flood hazard area that retain or could retain flood waters.

Policy PS-2m: Regulate development, water diversion, vegetation management, grading, and fills to minimize any increase in flooding and related damage to people and property.

Policy PS-2o: Costs for drainage facilities to handle the surface runoff from new development shall be the responsibility of the new development.

Policy PS-2p: Require that design and construction of drainage facilities be subject to the review and approval of the Permit and Resource Management Department.

Existing Setting

The project area is within the Lower Russian River watershed, a hydrologically significant area that drains into the Russian River, a critical resource for regional water supply, habitat, and recreation. Approximately 0.5 miles of the project area lies within an NPDES Boundary, falling under the jurisdiction of the NPDES regulations, which are overseen by the North Coast RWQCB. These regulations require monitoring and management of stormwater and other discharges to ensure compliance with state and federal water quality standards. The NPDES framework is particularly important in managing runoff from urban and construction activities, helping to prevent sedimentation and pollution that could degrade the watershed.[23]

Directly south of River Road, the project area includes a segment classified by the FEMA flood map as Zone AE, a Special Flood Hazard Area (SFHA), indicating a 1 percent annual chance of flooding (commonly referred to as the 100-year floodplain).[24] This designation underscores the importance of maintaining the area's flood storage capacity and implementing measures to mitigate potential flooding impacts. Existing drainage features in the area include culverts and ditches that channel surface runoff, and these systems will need to be assessed and potentially upgraded to handle post-construction flows while preserving the natural hydrology and floodplain functionality.

The southern portion of the project area contains drainage flow paths and connectivity of the features which were determined to be hydrologically isolated from other waters. Local topography isolates the area south of Mirabel Road from the closest waterbody, Green Valley Creek. Green Valley Creek flows in the northwesterly direction and is 0.63 miles south of the project area at the intersection of Mirabel Road and SR 116. A topographic high (of around 200 feet above sea level) creates a basin around Mirabel Road and just south of SR 116.

Impact Discussion

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. The project area falls within the Wilson Grove Formation highlands Groundwater Basin. The Russian River lies adjacent to the project area and flows parallel to River Road which is the proposed project's northern boundary.

The proposed project will require construction activities where construction materials, dust, and debris could result in temporary impacts on water quality to adjacent waterways and if surface water. During the project grading activities, trenching for utilities, and other standard ground-disturbing activities topsoil would be exposed. After grading and prior to overlaying the ground surface with the new roadway and impervious surfaces, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants. If not properly controlled, this has the

[23] Sonoma County. 2024. Sonoma County Interactive GIS Map Viewer. Available at: https://sonomacounty.maps.arcgis.com/apps/webappviewer/index.html?id=c36134153c024b01a0eb2aabb2345579. Accessed on: December 2024.
[24] FEMA. 2024. FEMA Flood Map Service Center. Available at: https://msc.fema.gov/portal/search?AddressQuery=mirabel%20road%20forestville. Accessed on: December 2024.

potential to violate water quality standards or waste discharge requirements. The project would be constructed in compliance with applicable water quality and dust control regulations.

In order to ensure that stormwater runoff from the project area does not adversely increase pollutant levels in adjacent surface waters and stormwater conveyance infrastructure, BMPs would be implemented. BMPs would be used to reduce the potential for pollutants in stormwater runoff from leaving the site. BMPs could include, but are not limited to, tracking controls, perimeter sediment controls, drain inlet protection, wind erosion/dust controls, and waste management control. The BMP's would be implemented in accordance with a site-specific SWPPP, which would be developed to comply with the NPDES.

Following compliance with and completion of NPEDS permit, SWPPP, BMPs, and conformance to applicable Federal, State, and Local regulations, the proposed project would have a less than significant impact related to water quality and water discharge requirements with conformance to the listed regulations. Additional mitigation would not be required.

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

Less Than Significant Impact. The proposed project would increase the area of impervious surfaces affecting the amount of precipitation from infiltrating into the groundwater. Temporary groundwater dewatering during construction is not anticipated to be required but, if necessary, would involve the pumping of groundwater in a localized area to just below the bottom of an excavation. Water would be pumped upslope and not into receiving waters. Such temporary dewatering, if needed, would only have an effect on groundwater levels in the immediate vicinity of an excavation area, would be temporary, and would not result in a substantial deficit in groundwater levels or well interference. The proposed project would not impede sustainable management of the local groundwater basin. The impact would be less than significant.

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?

Less than Significant Impact. The topography along the proposed project is mostly flat and the existing grade would not substantially change. The drainage patterns in the project area would be slightly altered by relocating and adding impermeable roadway surfaces and the extension and alteration of culverts crossing beneath the roadway. Where needed, new roadside ditches will be constructed. An existing headwall will be extended, and new stormwater pipes will be constructed. However, the proposed project is not anticipated to change the project area's general flow pattern.

Sonoma County is regulated by a Municipal Stormwater Permit which includes a Storm Water Management Plan/Program that is implemented by the County and enforced by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) to reduce the discharge of pollutants to the maximum extent practicable. The proposed project would not conflict with

the County's Municipal Stormwater Permit and Storm Water Management Plan/Program. Vegetated low impact development treatment areas would be implemented into the design in coordination with the San Francisco Bay Regional Water Quality Control Board, where feasible. The proposed project would also be required to comply with NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. Best management practices would be implemented during and after construction so that on-site and off-site erosion and sedimentation would be controlled to the extent practicable. The impact would be less than significant.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less than Significant Impact. The proposed project would regrade ditches along certain sections of Mirabel Road, and where space is limited, a piped storm drain system may be implemented. Construction of bike lanes along existing roadways and pavement resurfacing are excluded from the storm water low impact development requirements of the County's Phase II MS4 permit. Any new vegetated low impact development treatment areas would be implemented into the design in coordination with the RWQCB Section 401 Water Quality Certification for the proposed project, to the extent feasible. The proposed project would not be expected to cause on- or off-site flooding given that proper installation and long-term maintenance of the storm water controls would be conditionally required. The impact would be less than significant.

Approximately 0.16 miles of the project area, located directly south of the River Road intersection with Mirabel Road, is classified as Zone AE on the FEMA flood map, indicating a high-risk flood zone with a 1 percent annual chance of flooding.[25] This section lies within the 100-year floodplain. As previously discussed, the proposed project is required to comply with the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities. BMPs will be implemented during and after construction to control on-site and off-site flooding to the extent practicable. With these measures in place, the impact would be less than significant.

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?

Less than Significant Impact. The proposed project would incorporate stormwater management measures to effectively control and treat runoff. LID features, such as permeable surfaces or other runoff control methods, would be integrated into the design where it is feasible to promote surface water infiltration, reduce runoff, and improve water quality. In areas where space constraints limit the use of LID features, a piped storm drain system would be implemented to ensure proper drainage.

The proposed project would comply with the requirements of the North Coast RWQCB, including Section 401 Water Quality Certification. Existing cross culverts along the proposed project corridor would be extended or adjusted as needed to maintain their functionality and

[25] FEMA. 2024. FEMA Flood Map Service Center. Available at: https://msc.fema.gov/portal/search?AddressQuery=mirabel%20road%20forestville. Accessed on: December 2024.

ensure adequate capacity to convey stormwater flows consistent with current drainage patterns. These measures would ensure that the proposed project does not exceed the capacity of existing or planned stormwater drainage systems.

Additionally, BMPs would be implemented during and after construction to control erosion and sedimentation, preventing substantial additional sources of polluted runoff. With these measures in place, the impact related to runoff and stormwater drainage would be less than significant.

iv. Impede or redirect flood flows?

Less than Significant Impact. According to FEMA Flood Map, most of the proposed project is not located within a mapped floodplain. However, a portion of Mirabel Road, approximately 0.16 mile, near River Road crosses into Zone AE, a SFHA, which is defined as having a 1 percent chance of floods occurring in any given year. The proposed project would extend the existing storm water culvert at this location on both sides of Mirabel Road, and would continue to convey flows similar to existing conditions. The topography and the exiting grade would not substantially change, as the design balances earthwork cut and fill within the SFHA to preserve flood storage volume to maintain existing conditions. Flood waters would not be redirected as a result of the proposed project; therefore, the proposed project would not result in flood water displacement. The impact would be less than significant.

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

Less Than Significant Impact. The proposed project is located near AE flood zone to the north, this area presents a 1 percent annual chance of flooding and a 26 percent chance over the life of a 30-year mortgage, according to FEMA. Additionally, it is adjacent to Zone X which is determined to be outside the 500-year flood and protected by levee from 100-year flood. The impact would be less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. The proposed project would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan. Adherence to construction provisions and precautions described in required National Pollutant Discharge Elimination System permits would be upheld, and best management practices would be required to be implemented to prevent violation of water quality standards or wasted is charge requirements or degradation of water quality. Operation of the proposed project would not impede sustainable groundwater management as the proposed project would not utilize groundwater, interfere with groundwater recharge, generate growth, or increase water demands.

Cumulative Impacts

Cumulative impacts to hydrology and water quality could occur as new development, redevelopment, and existing uses occur within the watershed. As Forestville grows, new development and redevelopment projects would result in some increases in impervious surfaces. This could generate increased runoff and

reduce infiltration capacity from the affected project areas. Future developments in the watershed would be required to comply with the North Coast RWQCB. Depending on the size of future projects, they would be required to obtain and comply with all required water quality permits, develop Water Quality Control Plan as needed, prepare and implement SWPPPS, and implement BMPs, including LID BMPs to minimize runoff, erosion, and storm water pollution such as the proposed project would implement. For projects outside Forestville but within the basin, they would also be required to comply with applicable County and City codes of those jurisdictions. As part of these requirements, projects would be anticipated to implement and maintain source controls, and treatment measures to minimize polluted discharge and prevent increases in runoff flows that could substantially decrease water quality. As discussed above, the proposed project would not result in impacts to hydrology and water quality and would reduce the demand for potable water. Therefore, taken in conjunction with past, present, and reasonably foreseeable projects, the proposed project would not result in substantial increases in storm water pollution, increased potential for flooding or subsequent effects, substantially alter any drainage patters, or deplete ground water. With compliance with State and local mandates, cumulative impacts would be less than significant, and project impacts would not be cumulatively considerable.

4.11 Land Use/Planning

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?				**X**
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?				**X**

Regulatory Setting

Federal

Federal Highway Administration Complete Streets Policy

The Federal Highway Administration (FHWA) Complete Streets Policy, officially adopted in 2021, promotes designing and constructing roadways that accommodate all users, including pedestrians, bicyclists, transit riders, and motorists, regardless of age or ability. Established to improve safety, accessibility, and community health, this policy encourages integrating sidewalks, bike lanes, crosswalks, and other multimodal features into roadway projects. While not a federal mandate, FHWA's Complete Streets Policy provides guidance for federally funded projects, helping to ensure transportation infrastructure supports safe and accessible travel options for everyone. By adopting Complete Streets principles, FHWA aims to create inclusive transportation networks that align with environmental, economic, and public health goals.

State

California Complete Streets Act (AB 1358)

The California Complete Streets Act (AB 1358), established in 2008, is legislation that requires local governments incorporate "Complete Streets" principles into their general plans. Complete Streets policies are designed to make roadways accessible and safe for all users, including pedestrians, bicyclists, transit riders, and motorists. For road improvement projects, this means incorporating infrastructure that supports active and public transportation alongside vehicular travel, aligning with the state's sustainability goals.

California Transportation Plan 2050

The California Transportation Plan is a long-term strategic plan guides the development of California's transportation system with a focus on sustainability, reduced greenhouse gas emissions, and efficient multimodal transportation. Road improvement projects are encouraged to support these statewide

goals, contributing to an integrated transportation network that promotes public health and environmental quality.

California Sustainable Communities and Climate Protection Act (SB 375)

California Sustainable Communities and Climate Protection Act (SB 375), enacted in 2008, requires regions to develop Sustainable Communities Strategies to reduce greenhouse gas emissions by integrating transportation and land use planning. Road improvement projects should align with the Sustainable Communities Strategies to support sustainable growth, particularly by enhancing connections to transit and active transportation options.

Regional

Sonoma County General Plan 2020

The County General Plan, adopted in 2008, serves as the overarching policy document for land use and development in unincorporated areas, including Forestville. The plan's Circulation and Transit Element is particularly relevant to land use and planning, as it provides policies guiding the development of transportation infrastructure that promotes safe and efficient movement across various modes, including biking and walking. By supporting projects that enhance road safety, connectivity, and accessibility, the County General Plan aligns transportation improvements with Sonoma County's broader goals of sustainability, land use compatibility, and community mobility. Incorporating these policies ensures that projects contribute to the county's planned growth and development framework.

Sonoma County Bicycle and Pedestrian Plan

The Sonoma County Bicycle and Pedestrian Plan adopted in 2010, outlines policies and identifies priority projects for developing bicycle and pedestrian infrastructure countywide. This plan aims to increase the safety, accessibility, and connectivity of bicycle and pedestrian facilities, particularly along key routes like those in Forestville. The plan provides standards and recommendations for developing bike lanes, sidewalks, and related infrastructure, supporting Sonoma County's goals for active transportation, reduced vehicular reliance, and improved public health.

Sonoma County Zoning Regulations (Chapter 26)

The Sonoma County Zoning Regulations, established in 1964 and regularly updated, outlined in Chapter 26 of the County Code, set forth land use classifications, permitted uses, and development standards within designated zones across the county. In Forestville, these zoning regulations establish the permitted types of development and applicable standards for public infrastructure projects, ensuring that road and bike lane improvements are consistent with local land use policies.

Existing Setting

The project area along Mirabel Road encompasses a variety of land use designations as outlined in the County General Plan and Zoning Ordinance. These designations include Recreation/Visitor-Serving Commercial, which supports recreational facilities and visitor-oriented commercial uses such as lodging, restaurants, and retail establishments that cater to both tourists and the local community. Limited Commercial zoning, which permits small-scale commercial uses like neighborhood retail stores, service businesses, and offices, primarily serving the immediate community's needs.

According to the County General Plan, the area includes the following designations: [26]

- Rural Residential designations, which provide for low-density residential development on large parcels, preserving the rural character of the landscape while accommodating limited agricultural or open space uses.
- Urban Residential designated areas are present as well, allowing medium- to high-density housing developments, including single-family homes, duplexes, and multi-family housing, intended to support compact growth near urban services;
- Limited Commercial designations, which allow for small-scale retail, service, and office uses that serve the daily needs of nearby residents and support the economic vitality of the surrounding community.
- Public/Quasi-Public designation covers areas intended for community facilities such as schools, fire stations, and other public or institutional uses.

The Sonoma County Zoning for the parcels surrounding project area include the following: [27,]

- Neighborhood Commercial District (C1). The C1 zone provides areas for various retail business, service and professional activities in rural neighborhoods and within urban service areas.
- Local Guidelines Combing District (LG). The LG combining zone is applied concurrently to properties where Local Area Guidelines and Standards have been established by the Board.
- Scenic Resources Combining District (SR). Maximum building heights, minimum lot areas and lot widths, yard requirements and maximum percentages of lot coverage shall comply with the requirements for the districts with which the SR regulations are combined unless otherwise provided herein.
- Public Facilities District (PF). The PF zone provides areas for public uses such as schools, fire stations, government offices, and other essential services needed to support surrounding land uses.
- Rural Residential District (RR). This RR zone is intended to provide low-density residential development in rural areas where public services may be limited and where agricultural or open space uses are encouraged.
- Combining District (B). The B zone applies to lands with physical or environmental constraints, such as geologic hazards or poor access, and may limit development until those constraints are resolved or mitigated.
- Agriculture and Residential District (AR). The AR zone provides for low-density residential development in areas with agricultural potential, while protecting agricultural operations from encroachment and preserving open space.
- Low Density Residential District (R1). The R1 zone allows for single-family dwellings in suburban and urban areas, generally with full public utilities and services.

[26] Sonoma County. 2020. *Land Use Countywide - Figure 1*. Available at: https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Long%20Range%20Plans/Land%20Use%20Countywide%20-%20Fig%201.pdf. Accessed on: November 19, 2024.
[27] Sonoma County. 2024. *Parcel Search*. Available at: https://parcelsearch.permitsonoma.org/ParcelSearch. Accessed on: November 19, 2024.

- Floodplain Combining District (F2). The F2 zone applies to areas subject to periodic flooding and imposes additional development restrictions to reduce flood risk and protect floodplain functions.
- Administrative and Professional Office District (CO). The CO zone accommodates low-intensity professional offices and service uses that are compatible with adjacent residential or commercial uses.
- Oak Woodland Combining District (OAK). The OAK combining zone applies to lands supporting oak woodlands and requires measures to protect oak trees and their ecological functions during site development.
- Riparian Corridor Combining Zone (RC). The RC zone establishes development standards and setbacks for lands adjacent to designated riparian corridors in order to protect water quality, habitat, and bank stability.

The land use framework along the project area reflects the county's objectives to balance development with conservation, ensuring that the area retains its rural character while accommodating appropriate residential, commercial, recreational, and public uses. These designations provide a structured approach to managing growth while supporting the diverse needs of the local population and visitors.

Land use planning in this corridor is guided by policies aimed at balancing development with the preservation of agricultural resources and rural character. The County General Plan and zoning ordinances provide frameworks for managing growth, ensuring that new developments align with community objectives and environmental considerations.

Impact Discussion

a) Physically divide an established community?

No Impact. The physical division of an established community typically refers to the construction of a physical feature or removal of a means of access that would impair the mobility within an existing community, or between a community and outlying areas. The proposed project would utilize the established roadway to implement road improvements such as a bikeway. The proposed project would not physically divide an established community. No impact would result.

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

No Impact. The proposed project will not conflict with any land use plans, policies, or regulations adopted by Sonoma County within their General Plan. The proposed project would be consistent with all plans and policies discussed in the County General Plan, Land Use Element. The proposed project would utilize existing roadways and acquire right-of-way from three properties for the proposed road improvements. Therefore, no impact would result.

Cumulative Impacts

Implementation of the proposed project would not create a significant cumulative impact to the surrounding region since its surrounding area is planned for uses that are consistent with roadway improvements that serve future uses. As a result, no cumulative impacts related to land use and planning would occur.

4.12 Mineral Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				**X**
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?				**X**

Regulatory Setting

Federal

U.S. Department of the Interior's Minerals Availability System This system identifies between 15 and 17 rare Earth minerals as critical resources for United States Department of Defense applications or resources which are critical to national security. It recommends the development of a comprehensive approach to help ensure a secure supply of each resource and identifies risks as well as timeframes for actions.

State

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act (SMARA) was enacted by the California legislature in 1975 to address the need for a continuing supply of mineral resources and to prevent or minimize the negative impacts of surface mining on public health, property, and the environment.

As mandated under SMARA, the State Geologist has designated Mineral Resource Zones (MRZs) to help identify and protect mineral resources in areas subject to urban expansion or other irreversible land uses that would preclude mineral extraction. The MRZ classifications are as follows:

- MRZ-1: Areas where adequate information indicates no significant mineral deposits are present or likely to be present.
- MRZ-2: Areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists.
- MRZ-3: Areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- MRZ-4: Areas where available information is inadequate for assigning any other MRZ classification.

SMARA also allowed the State Mining and Geology Board, after receiving classification information from the State Geologist, to designate lands containing mineral deposits of regional or statewide significance.

Regional

Sonoma County General Plan 2020 – Public Safety Element

The County General Plan Public Safety Element includes a comprehensive approach to conserving and managing mineral resources within the county. This element identifies areas with significant mineral deposits, such as aggregate resources, which are crucial for construction materials in road and infrastructure projects. By designating these mineral resource zones, the County General Plan aims to protect these valuable resources from urban encroachment or incompatible land uses that could restrict access to them in the future.

To balance mineral resource extraction with environmental protection and land use compatibility, the Public Safety Element establishes policies that promote sustainable extraction practices, ensuring that mining activities align with Sonoma County's environmental and public safety standards. These policies require project proponents to assess potential impacts on mineral resources during the planning and development phases, especially for projects located near designated mineral resource zones. This assessment typically includes evaluating whether a proposed development would limit or hinder access to mineral deposits, which is essential to preserve Sonoma County's long-term resource needs.

Sonoma County Code of Ordinances

The Sonoma County Code of Ordinances – Chapter 26 includes specific provisions for mineral resource zones, which are areas designated for the extraction and protection of valuable mineral deposits, such as sand, gravel, and other aggregates essential for construction and infrastructure projects. Within these zones, Chapter 26 establishes allowable land uses and sets detailed development standards aimed at conserving mineral resources and minimizing conflicts with surrounding land uses.

These zoning regulations protect mineral resource areas from encroachment by incompatible uses, such as residential or commercial developments, which could limit access to or the viability of resource extraction operations. For example, projects proposed near or within mineral resource zones are subject to review to ensure that they do not restrict access to essential deposits or interfere with extraction activities. This includes the potential for buffer zones or specific setbacks to minimize the impact on both the resource area and neighboring properties.

In addition to use restrictions, Chapter 26 requires development projects within mineral zones to adhere to operational standards that mitigate environmental impacts, such as noise, dust, and traffic associated with extraction activities. These regulations also emphasize the need for reclamation planning, where developers must submit plans to restore mined land to a usable and environmentally stable condition after extraction is complete. By setting these standards, Chapter 26 ensures that mineral resource management is aligned with Sonoma County's broader goals of sustainable land use, environmental stewardship, and resource conservation, supporting the county's long-term infrastructure and construction needs while safeguarding public health and environmental quality.

Sonoma County Aggregate Resources Management Plan

The Sonoma County Aggregate Resources Management (ARM) Plan serves as the regulatory document with guidelines and objectives for sound management of aggregate mining in the county. The County adopted this plan in 1980 and updated in 1994, 2003, and 2010. During the process of adoption of the

plan, the County considered the aggregate resource areas classified as MRZ-2 by the State Geologist. The ARM Plan aims to meet future aggregate needs by using resources in the County and to recognize that continued production needs to be managed in a way that reduces depletion of those resources. It includes the following features in summary:

1. Incentives to stimulate quarry production
2. Plans for continued in-stream extraction for flood and erosion control with protection for fisheries and other adjacent uses
3. Limitations on terrace mining
4. Support for recycling of aggregate products
5. Reclamation of terrace mining areas for agricultural uses and habitat restoration
6. Road mitigation programs with fees

Other features and details are provided on the County's website, where the following objectives are also discussed:

Objective 1: Assist existing quarry operations to increase production for high-quality uses in an environmentally sound manner.

Objective 2: Facilitate new or expanded quarry operations at designated sites or at other locations with resources which can meet the needs for aggregate in an environmentally sound manner.

Objective 3: Provide for terrace resources to meet the needs for high quality uses for a ten-year period and terminate terrace mining at the end of that period.

Objective 4: Manage instream resources on a sustained yield basis for high quality uses in a manner which reduces bank erosion, maintains flood flow capacities, protects adjacent uses, and minimizes impacts on fisheries, vegetation, and wildlife.

Objective 5: Continue and expand monitoring programs so that more information is available for future decisions about terrace and instream impacts and alternative management policies and approaches.

Objective 6: Reevaluate gravel extraction methods and production periodically to assess options which would further reduce environmental impacts and land use conflicts or better meet the County's aggregate needs.

Objective 7: Change specifications, standards, and practices where possible so that quarry rock will be more competitive with instream and terrace sources.

Objective 8: Reduce the need for additional aggregate through utilization of recycled and substitute materials, changes in development standards, and other means possible.

Objective 9: Encourage the retention of locally produced aggregate for use within Sonoma County.

In addition to compliance with the ARM Plan, proposed new gravel operations require County approval of a mining and reclamation plan, and a use permit pursuant to County Ordinance 3437, which sets forth local implementation of the SMARA.

Existing Setting

The project area is situated within Sonoma County, an area known for its diverse geological features. The region's mineral resources have been historically significant, particularly in the context of aggregate materials used in construction.

Two notable mineral resources include BoDean Quarry (also known as the Blue Rock Quarry), which is approximately one mile west from Mirabel Road located at 7888 Highway 116, and Canyon Rock Co Inc, which is approximately one mile west from Mirabel Road located at 7525 Highway 116. These quarries have been operational for several decades, extracting aggregate materials such as crushed stone and gravel, which are essential for construction and infrastructure projects.[28,29]

Both quarries are classified as MRZ-2, indicating areas where significant mineral deposits are present or where there is a high likelihood of their presence. However, there are no designated MRZs within the project area.[30]

Impact Discussion

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?*

No Impact. The proposed project is not located in an area known to contain regionally significant mineral resources such as lands classified as State mineral resource zones. Therefore, the proposed project would not result in the loss of availability of a known mineral resource of regional value. No impact would result.

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?*

No Impact. The proposed project is not located in an area that has been identified by the County of Sonoma as a locally important mineral resource recovery site. Therefore, the proposed project would not result in the loss of the availability of any locally important mineral recovery site. No impact would result.

Cumulative Impacts

The proposed project would not make a substantial contribution to the loss of a mineral resource. It would not preclude the use of any area for mineral extraction, and the project area is not feasible for mineral resource development. Therefore, the proposed project, in conjunction with any other past, present, or reasonably foreseeable projects, would not result in a significant cumulative impact. Consequently, no cumulative impacts related to mineral resources would occur, and mitigation is not required.

[28] BoDean Company. 2024. *About Us*. Available at: https://bodeancompany.com/about-us/. Accessed on: December 2024.
[29] Canyon Rock Inc. 2024. *About*. Available at: https://www.canyonrockinc.com/about/. Accessed on: December 2024.
[30] Sonoma County Permit and Resource Management Department (PRMD). 2023. *Aggregate Resource Management: 2023 Production Report*. Available at: https://permitsonoma.org/Microsites/Permit%20Sonoma/Images/Long%20Range%20Plans/Agg%20Resource%20Manage/2023%20Production%20Report.pdf. Accessed on: December 2024.

4.13 Noise

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	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?		**X**		
b) Generation of excessive groundborne vibration or groundborne noise levels?			**X**	
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?				**X**

Regulatory Setting

Federal

Federal Transit Administration (FTA) Transit and Noise Vibration Impact Assessment Manual

The FTA provides reasonable criteria for assessing construction noise impacts based on the potential for adverse community reaction in their *Transit and Noise Vibration Impact Assessment Manual*.[31] For residential uses, the daytime noise threshold is 80 decibels (dBA) equivalent continuous sound level (L_{eq}).

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings founded on the soil near the construction site respond to these vibrations with varying results, ranging from no perceptible effects at the lowest levels, low rumbling sounds and perceptible vibrations at moderate levels, and slight damage at the highest levels.

[31] Federal Transit Administration. 2018. *Transit Noise and Vibration Impact Assessment.* Available: 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: July 12, 2023.

While ground vibrations from construction activities do not often reach the levels that can damage structures, fragile buildings must receive special consideration. The construction vibration criteria include consideration of the building condition.

The key elements of the Construction Vibration Assessment procedures and recommended workflow are presented in the manual in detail with the following steps:

Step 1: Determine level of construction vibration assessment.

Step 2: Use a qualitative construction vibration assessment.

Step 3: Use a quantitative construction vibration assessment.

Step 4: Assess construction vibration impact.

Step 5: Determine construction vibration mitigation measures.

Occupational Safety and Health Administration

The Federal Government regulates occupational noise exposure common in the workplace through the OSHA under the U.S. 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 noise standards consistent with guidelines adopted by the Governor's Office of Planning and Research. The purpose of the noise standards 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.

Regional

Sonoma County General Plan 2020 – Noise Element

The Noise Element of the County General Plan provides a framework for managing noise levels to protect the health and well-being of residents across the county. It establishes acceptable noise level standards and identifies potential noise sources, including transportation corridors, industrial facilities, and other land uses that may impact sensitive receptors, such as residential areas, schools, and hospitals. The Noise Element outlines policies to minimize noise impacts from new developments and construction projects, including road improvements and bike lane installations, by incorporating noise mitigation strategies when needed.

This element includes guidelines to assess and control both ambient and construction-related noise, ensuring that any increase in noise levels remains within acceptable limits for surrounding land uses. The Noise Element aligns with state noise compatibility guidelines, set specific thresholds and require project applicants to implement noise-reduction measures, such as sound barriers, restricted construction hours, and equipment modifications.

Sonoma County Code of Ordinances

The Sonoma County Code of Ordinances – Chapter 26 establishes land use and development standards across Sonoma County, defining permissible uses, density limits, and performance standards for different zoning districts. These regulations are designed to ensure compatible land use patterns, protect public health and safety, and promote environmental sustainability within the county. Chapter 26 addresses a range of development standards, including setbacks, height limits, and landscaping requirements, as well as performance standards that regulate noise, vibration, light, and air quality to minimize impacts on surrounding properties and sensitive receptors.

For projects involving construction, such as road improvements and bike lanes, Chapter 26 includes provisions to control construction-related noise and operational impacts by setting allowable noise levels and vibration thresholds. Compliance with these zoning regulations ensures that development aligns with the county's goals for orderly growth, environmental protection, and quality of life. Through these standards, Sonoma County enforces land use compatibility and ensures that projects meet countywide requirements for safety, sustainability, and community harmony.

Existing Setting

The project area is in a low density, rural/suburban environment with relatively low daytime and nighttime noise levels. Traffic from Mirabel Road and local roadways are the primary noise sources.

The nearest noise receptor to the proposed project's construction boundary is Sunol Glen Elementary School's recreation field, which is about 50 feet north of SR 84. The nearest school building is 260 feet north of SR 84. The nearest residence, 11768 Main Street, is located 240 feet north of SR 84.

Impact Discussion

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction

Less Than Significant with Mitigation Incorporated. The County's General Plan and municipal code do not establish construction-related noise standards. However, the County's *Guidelines for the Preparation of Noise Analysis* recommends that temporary construction noise be evaluated at a qualitative level, given its temporary and short-term nature. Construction activities would primarily require the use of excavators, backhoes, pavers, and paving equipment. Using typical construction noise levels for public works roadway projects, noise from construction would range from 84 to 88 dBA L_{eq} at a distance of 50 feet. However, noise levels typically attenuate (or drop off) at a rate of 6 dB per doubling of distance from point sources.

During construction, anticipated to take 6 to 9 months, noise would be temporary and intermittent in nature. Construction equipment would move in a linear fashion as opposed to operating adjacent to any one sensitive receptor for an extended period of time. Construction activities would be relatively minor (i.e., would not require pile driving, structure demolition, blasting or other such construction techniques) and would not produce excessive levels of noise. Based on the type and extent of work to be performed, nighttime construction is not anticipated, and would only be

performed under the approval of the County's Resident Engineer. However, because construction would occur adjacent to sensitive residential receptors, the temporary increase in noise is considered potentially significant. Implementation of Mitigation Measure NOl-1, described below, would reduce the temporary construction noise impact on adjacent sensitive receptors to a less-than-significant level by requiring the implementation of noise control measures that would reduce construction-phase noise generation.

Operations

Policy NE-1 b of the County General Plan establishes a standard of reducing exterior noise from traffic on public roadways to 60 to 65 dB Ldn or less in outdoor activity areas and reducing interior noise levels to 45 dB Ldn or less with windows and doors closed.

The proposed project would add a Class I bike path starting near the intersection of Mirabel Road and Highway 116 and ending at Davis Road. The proposed project does not generate growth, new vehicle trips, or new stationary noise sources. Therefore, the proposed project would not result in an increase in ambient noise levels. Operational noise impacts would be less than significant.

Mitigation Measure

MM NOl-1: Reduce Construction Noise.

To reduce construction noise, the County shall require the contractor to implement the following measures:

- Limit hours of construction to avoid the early morning and evening hours (such as 7 am to 7 pm on weekdays and 7 am to 5 pm on weekends).
- Limit work to non-motorized equipment on Sundays and holidays.
- Use sound blankets for loud operations such as air compressors or other mechanical equipment.
- Site construction staging areas as far as practical from nearby sensitive receptors.
- Require street legal mufflers on construction equipment.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Construction

Less Than Significant Impact. Construction activities can cause vibration that varies in intensity depending on several factors. The construction of the proposed project may generate perceptible vibration when heavy equipment is used close to sensitive receptors, such as excavators, backhoes, pavers, and paving equipment. Vibration levels vary depending on soil conditions, construction methods, and equipment used. Vibration levels are highest close to the source, and then attenuate with increasing distance. Construction would not require pile driving, structure demolition, blasting or other such construction techniques.

The primary concern with construction-induced vibration is the potential to damage an adjacent structure, either cosmetically (e.g. minor cracking of building elements), or threatening the integrity of the building. The Caltrans recommends a vibration limit of 0.5 in/sec Peak Particle Velocity (PPV)

for new residential and modern commercial/industrial structures, 0.3 in/sec PPV for older residential structures, or 0.12 in/sec PPV for historical buildings.

For the purposes of this study, groundborne vibration levels exceeding Caltrans' conservative 0.3 in/sec PPV limit have been selected as the significance threshold for a vibration impact. Using typical construction vibration levels for public works roadway projects, vibration from construction would range from 0.003 to 0.21 PPV at a distance of 25 feet. Such vibration levels would not exceed Caltrans significance thresholds. The impact would be less than significant.

Operations

Following construction, no sources of ground borne vibration or groundborne noise would be generated by the proposed project, as it would not generate growth, new vehicle trips, or new stationary noise sources. Therefore, the proposed project would not result in exposure of persons to or generation of excessive groundborne vibration or noise levels. No operational impact would result.

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?

No Impact. The proposed project is not located within an airport land use plan or within two miles of a public airport or public use airport. The nearest airport is Charles M. Schulz–Sonoma County Airport, located approximately eight miles northeast of the proposed project. No impact would result.

Cumulative Impacts

Cumulative Construction Noise

The proposed project's construction activities would not result in a substantial temporary increase in ambient noise levels. The County limits construction to the hours of 7:00 am to 7:00 pm on Monday through Friday. The proposed project would contribute to other proximate construction noise impacts if construction activities were conducted concurrently. However, based on the noise analysis above, the proposed project's construction-related noise impacts would be less than significant following compliance with local regulations and implementation of Mitigation Measure NOl-1.

Construction activities at other planned and approved projects would be required to take place during daytime hours, and the County and project applicants would be required to evaluate construction noise impacts and implement mitigation, if necessary, to minimize noise impacts. Each project would be required to comply with the applicable Sonoma County guidelines on allowable hours of construction. Therefore, project construction would not contribute to cumulative impacts and impacts in this regard are not cumulatively considerable. Cumulative noise impacts describe how much noise levels are projected to increase over existing conditions with the development of the proposed project and other foreseeable projects. Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways due to the buildout to of the area. As discussed above, the proposed project would not

generate growth, new vehicle trips, or new stationary noise sources and therefore would not generate any additional operational noise. Therefore, no impact would occur.

4.14 Population/Housing

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	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 (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				**X**
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				**X**

Regulatory Setting

State

California Housing Element Law

Initially adopted in 1969 and updated frequently, the California Housing Element Law mandates that local governments incorporate a Housing Element within their General Plan. The purpose of this law is to ensure local jurisdictions proactively address current and future housing needs, supporting development across all income levels. Housing Elements outline specific strategies and designated zones for housing growth, and projects are evaluated for consistency with these goals to support planned development and avoid unnecessary displacement or housing pressures.

Regional

Sonoma County General Plan 2020

Adopted in 2008, the County General Plan provides a comprehensive framework for land use, housing, transportation, and environmental policy across unincorporated areas, including Forestville. The plan's Housing Element, in particular, addresses the county's long-term housing needs, setting policies to foster a stable housing supply and support planned population growth. Projects are reviewed against these policies to ensure they contribute to local goals for population stability, sustainable land use, and adequate housing resources.

Sonoma County Housing Element Update 2023-2031

The 2023-2031 Housing Element Update was developed to meet Sonoma County's evolving housing needs, with particular attention to housing affordability and the identification of potential development sites. The update aims to support residential growth while preserving community character and affordability through zoning adjustments and strategic incentives. Projects that may impact housing

resources are assessed against this updated element to ensure they align with county goals for stable, sustainable residential development and do not inadvertently disrupt planned housing efforts.

Sonoma County Zoning Regulations (Chapter 26)

First adopted in 1964 and continuously updated, Sonoma County's Zoning Regulations (Chapter 26) provide specific classifications, permitted uses, and development standards across various zones. These regulations guide local growth by establishing compatible land uses, promoting balanced population density, and supporting housing availability. Ensuring that development aligns with zoning standards helps maintain community character and supports Sonoma County's goals for orderly growth, sustainable land use, and adequate housing resources.

Existing Setting

The project area is situated within the Forestville census-designated place, which is characterized by specific population and housing attributes. As of 2022, Forestville had an estimated population of 3,632 residents, with a median age of 45 years.[32] The area exhibits a population density of approximately 716.8 individuals per square mile.

Housing in Forestville comprises 1,566 units, with an occupancy rate of 94 percent. Owner-occupied units constitute 70 percent of the housing stock, while renter-occupied units account for 30 percent. The median value of owner-occupied homes is reported at $685,700. Rental properties have a median gross rent of $1,608 per month. The average household size in Forestville, based on data from 2018 to 2022, is 2.9 persons.[33]

Impact Discussion

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The proposed project does not involve construction of new housing or businesses, nor extension of roads or other infrastructure. The proposed project is a road improvement adding a Class I bike path along Mirabel Road. The proposed project does not add vehicular travel lanes on Mirabel Road and would not generate population growth or new vehicle trips. No impact would result.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The proposed project would not result in the removal of housing or displacement of residents. No impact would result.

[32] Census Reporter. 2024. Forestville, CA - Profile Data. Available at: https://censusreporter.org/profiles/16000US0624960-forestville-ca/. Accessed on: November 19, 2024.
[33] U.S. Census Bureau. 2024. QuickFacts: California. Available at: https://www.census.gov/quickfacts/fact/table/CA/HSG860219. Accessed on: November 19, 2024.

Cumulative Impacts

Overall, the proposed project is designed to meet the demand of the existing population in the local vicinity as well as regional travelers. It aligns with the planned land uses outlined in the County General Plan and is consistent with the population and employment projections for both the County and the broader region. While the proposed project may result in minor takings, it would not, in combination with other past, present, or reasonably foreseeable projects, contribute to a substantial cumulative impact on growth. The proposed project, along with other existing or planned developments, has been evaluated for consistency with local and regional planning efforts, including considerations of population growth and housing needs. Consequently, the proposed project would not result in a cumulatively considerable impact on population and housing, and no mitigation measures are required.

4.15 Public Services

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?				**X**
ii) Police protection?				**X**
iii) Schools?				**X**
iv) Parks?				**X**
v) Other public facilities?				**X**

Regulatory Setting

Federal

Disaster Mitigation Act

Section 104 of the Disaster Mitigation Act (DMA) of 2000 (Public Law 106-390) requires a state mitigation plan as a condition of disaster assistance. There are two different levels of state disaster plans: Standard and Enhanced. States that develop an approved Enhanced State Plan can increase the amount of funding available through the Hazard Mitigation Grant Program. The Act has also established new requirements for local mitigation plans.

Sonoma County prepared a hazard mitigation plan in compliance with the DMA in 2006 and has updated the plan every five years since then, most recently in 2016. The County and its multijurisdictional partners are currently preparing an updated hazard mitigation plan. The Public Review Draft of the Sonoma County Multijurisdictional Hazard Mitigation Plan Update 2021 was published in July 2021.

The Sonoma County Multijurisdictional Hazard Mitigation Plan Update 2021 defines measures to reduce risks from natural disasters in the Sonoma County. Operational Area, which consists of the entire

county, including unincorporated areas, incorporated cities, and special purpose districts. The plan complies with federal and state hazard mitigation planning requirements to establish eligibility for funding under FEMA grant programs for all planning partners. It updates the County's previous plan, the 2016 Sonoma County Operational Area Hazard Mitigation Plan.

National Fire Plan

The National Fire Plan was developed under EO 11246 in August 2000, following a landmark wildland fire season. Its intent is to actively respond to severe wildland fires and their impacts to communities, while ensuring sufficient firefighting capacity for the future. The plan addresses firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability.

State

California Fire Plan

The Strategic California Fire Plan is the State's roadmap for reducing the risk of wildfire. The plan was updated in 2012 and directs each CAL FIRE unit to prepare a locally specific Fire Management Plan for its area of responsibility. These documents assess the fire situation in each of CAL FIRE's 21 units and six contract counties. The plans include stakeholder contributions and priorities and identify strategic areas for pre-fire planning and fuel treatment, as defined by the people who live and work with the local fire problem. The plans are required to be updated annually.

California State Hazard Mitigation Plan

The purpose of the State of California Multi-Hazard Mitigation Plan (SHMP) is to significantly reduce deaths, injuries, and other losses attributed to natural and human-caused hazards in California. The SHMP provides guidance for hazard mitigation activities emphasizing partnerships among local, state, and federal agencies as well as the private sector. The California Office of Emergency Services prepares the SHMP, and in it identifies risks and includes a vulnerability analysis and a hazard mitigation strategy. The SHMP is federally required under the Disaster Mitigation Act of 2000 for the state to receive federal funding. The 2018 California SHMP represents the state's primary hazard mitigation document and provides an updated analysis of the state's historical and current hazards, hazard mitigation goals and objectives and hazard mitigation strategies and actions. FEMA approved California's 2018 SHM on September 28, 2018.

Regional

Sonoma County General Plan

The County General Plan includes broad goals and policies intended to ensure the safety of county residents and ensure adequate provision of public facilities and services to serve the existing and projected county population. Goals and policies from the County General Plan are provided below.

The following are Public Facilities and Services Element goals and policies:

Goal PF-2: Assure that park and recreation, public education, fire suppression and emergency medical, and solid waste services, and public utility sites are available to the meet future needs of Sonoma County residents.

> **Objective PF-2.6:** Integrate fire protection systems into new structures as a means of improving fire protection services through adoption of a County ordinance.

Policy PF-2a: Plan, design, and construct park and recreation, fire and emergency medical, public education, and solid waste services and public utilities in accordance with projected growth, except as provided in Policy LU-4d.

Policy PF-2b: Work with the Cities to provide park and recreation, public education, fire and emergency medical, and solid waste services as well as public utilities. Use proposed annexations, redevelopment agreements, revenue sharing agreements, and the CEQA process as tools to ensure that incorporated development pay its fair share toward provision of these services.

Policy PF-2c: Use the following standards for determination of park needs: Twenty acres of regional parks per 1,000 residents countywide and five acres of local and community parks per 1,000 residents in unincorporated areas. A portion of State parklands may be included to meet the standard for regional parks.

Policy PF-2f: Adopt and implement a new Outdoor Recreation Plan with parks and recreation facilities necessary to meet the needs of GP2020.

Policy PF-2g: Require dedication of land or in-lieu fees as a means of funding park and fire services and facilities.

Policy PF-2l: Continue to implement State law pertaining to school impact mitigation that allows for the dedication of land, the payment of fees, or both, as a condition of approval for development projects.

Policy PF-2m: Prepare a Fire Services Master Plan for urban and rural areas in cooperation with the Cities, State, and other fire service agencies. The minimum contents necessary for an adequate master plan are:

1. A statement of objectives, policies and programs,
2. A forecast of growth,
3. Projected fire and emergency medical service needs, and
4. A level of service assessment

Policy PF-2x: Utilize development fees to require that new development pay for its share of needed infrastructure as identified in existing and future Capital Improvement Plans prepared by the County.

Goal PS-3: Prevent unnecessary exposure of people and property to risks of damage or injury from wildland and structural fires.

Policy PS-3b: Consider the severity of natural fire hazards, potential damage from wildland and structural fires, adequacy of fire protection and mitigation measures consistent with the Public Safety Element in the review of projects.

Policy PS-3d: Refer projects and code revisions to the County Department of Fire and Emergency Services and responsible fire protection agencies for their review and comment.

Existing Setting

The project area is supported by various public services that address the needs of local residents and businesses. Educational services in the area are provided by the Forestville Union Elementary School District, which operates the Forestville Elementary School and Forestville Academy.[34] These schools serve students from kindergarten through eighth grade and are located near Mirabel Road, catering to the local population.

Public safety services include fire protection and emergency response managed by the Sonoma County Fire District, which operates Station 7, located at 6554 Mirabel Road adjacent to the project area. Law enforcement is provided by the Sonoma County Sheriff's Office, which patrols the area and responds to public safety concerns. These services collectively support the infrastructure and safety of the community along Mirabel Road.

Impact Discussion

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

i. Fire protection?

&

ii. Police protection?

No Impact. The proposed project is a bicycle lane improvement project to close a gap between established bicycle infrastructure along Mirabel Road and to improve safety along an important commuter corridor. During construction, Mirabel Road would remain open to traffic and control measures would be implemented per the California Manual on Uniform Traffic Control Devices. The proposed project would not reduce the width of travel lanes along Mirabel Road, which would continue to adequately accommodate fire protection and police vehicles. The proposed project does not add vehicular travel lanes on Mirabel Road and would not generate population growth or new vehicle trips. The proposed project would not require expanded fire or police protection facilities to maintain acceptable service ratios, response times, or other performance objectives. No impact would result.

iii. Schools?

No Impact. The proposed project would not result in an increase in the County's student population. No new or expanded schools would be required. No impact would result.

[34] Forestville Union Elementary School District. 2024. Forestville Union Elementary School District Website. Available at: https://forestvilleusd.org/. Accessed on: November 19, 2024.

iv. Parks?

No Impact. The proposed project is a road improvement by adding a Class I bike path along Mirabel Road. It would not cause any increased park use such that new or expanded parks would be required. No impact would result.

v. Other public facilities?

No Impact. The proposed project does not involve residential development or new employment generating land uses and would therefore not generate an increase in the County's population. No major additional public services, such as libraries, would be required to serve the proposed project. No impact would result.

Cumulative Impacts

The proposed project would not add residential units or increase the population in Sonoma County. It would not lead to an intensification of land use or introduce structures or activities that deviate from the current County General Plan, nor would it increase the number of residents, thereby avoiding additional demand for or use of public services within the region. Furthermore, the proposed project would not, in combination with past, present, or reasonably foreseeable projects, result in cumulative impacts. Lastly, the proposed project would not contribute to significant incremental effects on public services or facilities when considered alongside similar impacts from other developments. As a standalone initiative, the proposed project would not create cumulatively considerable impacts on public services or facilities.

4.16 Recreation

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				**X**
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				**X**

Regulatory Setting

State

Assembly Bill 1191 and 1359 – Quimby Act

The Quimby Act, which is within the Subdivision Map Act, authorizes the legislative body of a city or county to require the dedication of land or impose fees for park or recreational purposes as a condition to the approval of a tentative or parcel subdivision map, if specified requirements are met. On September 8, 2013, Governor Brown signed the AB 1359, the purpose of which was to amend the existing Quimby Act to authorize local governments to spend Quimby Act funds beyond parks that serve the development from where the funds were sourced. To reallocate the funds in this manner, AB 1359 requires the legislative body to hold a public hearing before using fees as prescribed in the bill. Subsequently, on September 8, 2015, Governor Brown signed the AB 1191, the purpose of which was to amend the existing Quimby Act to authorize the legislative bodies of cities and counties to require land dedication or to impose fees for future park or recreational purposes as a required condition of approval of a tentative or parcel subdivision map. AB 1191 also eliminated the requirement for a local municipality to repay any unspent funds accrued through the Quimby Act after a five-year period resulting from such fees.

Regional

County of Sonoma General Plan

The County General Plan emphasizes enhancing recreational opportunities to foster a vibrant, healthy community. These recreational goals include preserving open spaces, expanding park access, and developing diverse recreational facilities to meet the needs of Sonoma County's growing population. By prioritizing recreation, the County General Plan aims to enrich residents' quality of life and create

inviting, accessible spaces for outdoor activities and community gatherings. Key recreation-focused goals and policies are outlined below.

The following are Open Spaces and Resource Conservation Element goals and policies:

Goal OSRC-17: Establish a countywide park and trail system that meets future recreational needs of the County's residents while protecting agricultural uses. The emphasis of the trail system should be near urban areas and on public lands.

> **Objective OSRC-17.1:** Provide for adequate parklands and trails primarily in locations that are convenient to urban areas to meet the outdoor recreation needs of the population, while not negatively impacting agricultural uses.
>
> **Policy OSRC-17d:** The trails on Figure OSRC-3 make up the County's designated plan for trails. Trail locations are approximate and are described below. Roadways may be used where access cannot be obtained through private property.
>
> > Santa Rosa - Forestville Trail. The proposed trail primarily follows the abandoned right-of-way of the Petaluma and Santa Rosa Railroad from Highway 101 to Steelhead Beach.

Existing Setting

Mirabel Road provides access to several recreational facilities serving local residents and visitors. The Forestville Youth Park, located at 7069 Mirabel Road, hosts youth baseball and soccer events and is a venue for community gatherings.[35] The park features shaded areas suitable for picnics and outdoor activities.

Mirabel Road is approximately 0.3 mile from Steelhead Beach Regional Park located at 9000 River Road and approximately 2 miles from the Forestville River Access, commonly referred to as "Mom's Beach," located at 10584 River Drive.[36] This site includes a trail leading to a beach on the Russian River, where visitors can enjoy swimming, fishing, and other recreational activities. These facilities, accessible via Mirabel Road, offer recreational opportunities that support outdoor leisure, sports, and community activities in the area.

Impact Discussion

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No impact. The proposed project is a road improvement adding a Class I bike path along Mirabel Road and would have no effect on any existing neighborhood, regional parks, or other recreational facilities.

[35] Forestville Youth Park. 2024. Forestville Youth Park Website. Available at: https://www.forestvilleyouthpark.org. Accessed on: November 19, 2024.
[36] Forestville Chamber of Commerce. 2024. Local Recreation: Forestville River Access. Available at: https://www.forestvillechamber.org/local-recreation/. Accessed on: November 19, 2024.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The proposed project is a road improvement adding a Class I bike path along Mirabel Road and would not directly or indirectly induce population growth in the project area. The proposed project would not materially increase the use of recreational facilities, which may have an adverse physical effect on the environment. No new or expanded recreational facilities would be required. No impact would result.

Cumulative Impacts

The development of the proposed project would not result in a significant cumulative increase in recreational facilities. Additionally, the proposed project would not combine with other past, present, or reasonably foreseeable projects to create significant cumulative impacts. It would not affect existing recreational facilities or lead to a substantial population increase that could strain those facilities. Therefore, no cumulative impacts on recreational facilities are anticipated.

4.17 Transportation

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?				**X**
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?				**X**
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				**X**
d) Result in inadequate emergency access?		**X**		

Regulatory Setting

State

Regional Transportation Plan

The Metropolitan Transportation Commission (MTC) is the transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area. MTC is charged with regularly updating the Regional Transportation Plan, a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities in the region. MTC and ABAG adopted Plan Bay Area 2040 in July 2017, which includes a Regional Transportation Plan to guide regional transportation investment for revenues from Federal, State, regional and local sources through 2040.[37]

Senate Bill 743

Enacted in 2013, SB 743 establishes criteria for determining the significance of transportation impacts using a VMT metric intended to promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses. Specifically, SB 743 requires the replacement of automobile delay—described solely by level of service or similar measures of vehicular capacity or traffic congestion—with VMT as the recommended metric for determining the significance of transportation impacts. The Governor's Office of Planning and Research (rename as Governor's Office

[37] Metropolitan Transportation Commission and Association of Bay Area Governments (MTC and ABAG). 2017. *Plan Bay Area 2040 – Regional Transportation Plan and Sustainable Communities Strategy for the San Francisco Bay Area 2017-2040*. July 26, 2017. Available: https://mtc.ca.gov/sites/default/files/Final_Plan_Bay_Area_2040.pdf. Accessed: June 30, 2023.

of Land Use and Climate Innovation in 2024) approved the CEQA Guidelines implementing SB 743 on December 28, 2018. Local jurisdictions are required to implement a VMT policy by July 1, 2020.

Regional

Sonoma County's Congestion Management Program

Sonoma County's Congestion Management Program (CMP), administered by the Sonoma County Transportation Authority (SCTA), is a regulatory framework designed to monitor, manage, and mitigate traffic congestion, supporting both transportation efficiency and air quality improvements across the county. The CMP establishes standards for roadway performance, enabling SCTA to assess traffic conditions on major roadways and prioritize projects that reduce congestion. Additionally, the program integrates land use and transportation planning to promote sustainable development patterns that help minimize travel demand. Key components include regular traffic monitoring, air quality measures to lower vehicular emissions, and a Capital Improvement Program that outlines priority infrastructure projects to enhance mobility. The CMP is essential for coordinating transportation projects among local jurisdictions, aligning them with regional and state goals to ensure sustainable growth, efficient traffic flow, and improved air quality, all of which support a more resilient transportation network in Sonoma County.

Sonoma County Transportation Authority

The SCTA is governed by the Sonoma County board of Supervisors and a twelve-member Board of Directors representing nine cities – Cloverdale, Cotati, Healdsburg, Petaluma, Rohnert Park, Santa Rosa, Sebastopol, Sonoma, and Windsor. The SCTA acts as the countywide planning and fund programming agency for transportation and performs a variety of important functions related to advocacy, project management, planning, finance, grant administration, and research. The SCTA helps implement transportation projects throughout Sonoma County, which includes highways, roads, public transit, and active transportation – such as bike and pedestrian paths and trails.

The passage of Measure M, the Traffic Relief Act for Sonoma County, by Sonoma County voters in 2004 provided for a 0.25-cent sales tax collected over 20 years to be used to maintain local streets, fix potholes, accelerate the widening of Highway 101 for High Occupancy Vehicle lanes, improve local street operations, restore and enhance transit services, support the development of passenger rail service, and build safe bicycle and pedestrian routes. The funds are dedicated towards specific programs and projects specified in the voter approved Expenditure Plan.

The programs and projects contained in the Expenditure Plan are based upon the 2016 Comprehensive Transportation Plan developed by SCTA. The Comprehensive Transportation Plan identified goals to improve and maintain all modes of transportation related to the movement of people and goods.

Sonoma County Bicycle and Pedestrian Plan

The Sonoma County Bicycle and Pedestrian Plan outlines a comprehensive approach to developing safe and accessible infrastructure for cyclists and pedestrians throughout Sonoma County. The plan establishes design standards and prioritizes projects that connect communities, improve safety, and encourage active transportation as alternatives to motor vehicle travel. It identifies key areas where bike lanes, sidewalks, and pathways are needed to enhance connectivity between residential, commercial, and recreational areas. Additionally, the plan aligns with broader county and state goals for reducing greenhouse gas emissions by encouraging non-motorized transportation options, improving

public health, and supporting sustainable land use practices. The Bicycle and Pedestrian Plan guides local jurisdictions, including unincorporated communities like Forestville, in implementing safe and integrated networks for cyclists and pedestrians.

Sonoma County General Plan 2020 – Circulation and Transit Element

The Circulation and Transit Element of the County General Plan sets forth policies to develop and maintain a comprehensive and multimodal transportation network across the county. This element addresses the need for efficient roadways, transit services, and non-motorized transportation infrastructure, aiming to improve mobility and reduce reliance on single-occupancy vehicles. It emphasizes the integration of various transportation modes, supporting bike lanes, pedestrian pathways, and public transit connections to foster accessibility and connectivity throughout Sonoma County. Additionally, the Circulation and Transit Element aligns with the county's goals for managing congestion, promoting public transit use, and supporting sustainable development patterns that reduce environmental impacts. This element serves as a foundational framework for planning and implementing transportation projects, ensuring that road improvements and transit expansions contribute to a balanced and efficient transportation system for the county.

Existing Setting

Mirabel Road connects SR 116 and River Road, operating as a two-lane roadway with speed limits ranging from 35 to 45 miles per hour. The intersection with SR 116 experiences congestion and safety issues, prompting past proposals like the Forestville Bypass project, which included plans for a roundabout. However, this project has not moved forward due to funding limitations and community concerns. Mirabel Road currently lacks dedicated bicycle lanes, which limits accommodations for cyclists.

Public transportation along Mirabel Road is available through Sonoma County Transit, though service frequency and coverage are limited.[38] The proposed infrastructure updates are intended to address current transportation challenges and provide better access for cyclists and pedestrians.

Impact Discussion

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

No Impact. The proposed project is a road improvement adding a Class I bike path that will have a short-term temporary impact on local traffic on Mirabel Road during construction activities. The proposed project will not conflict with a program plan, ordinance or policy addressing transit, roadway, bicycle and pedestrian facilities.

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

No Impact. The proposed project would not increase vehicle traffic or vehicle miles traveled because the proposed project does not increase the vehicular capacity of Mirabel Road or result in

[38] Sonoma County Transit. 2024. *Route 20: Maps and Schedules*. Available at: https://sctransit.com/maps-schedules/route-20/. Accessed on: November 19, 2024.

traffic-generating land uses. Therefore, the proposed project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). No impact would result.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The proposed project would not introduce a new use or geometry that would substantially increase a hazard in the roadway. No impact would result.

d) Result in inadequate emergency access?

Less Than Significant with Mitigation Incorporated. Construction activities may result in traffic delays possibly slowing emergency response vehicles. Upon project completion, the additional Class II bike lanes would allow vehicles to pull over to allow emergency response vehicles to pass, creating a safer more accessible roadway for emergency vehicles. The short term construction related impact that will cease upon project completion. Implementation of MM HAZ-1 would ensure adequate traffic access for the public and emergency responders during construction, reducing the impact to less than significant.

Cumulative Impacts

The proposed project would improve accessibility for different modes of transportation along Mirabel Road by adding Class II bike lanes. The proposed project is intended to serve existing and planned uses and does not include any uses, combined with other past, present, and reasonably foreseeable projects that would contribute to an increase in VMT. Although other future uses in the vicinity including new residential uses may generate new vehicle trips, the proposed project would not generate new trips and would only serve to accommodate travel between existing and planned uses. Therefore, the proposed project would not result in incremental effects to transportation that could be compounded or increased when considered together with similar effects from other past, present, and reasonably foreseeable probable future projects. Potential impacts are not cumulatively considerable and less than significant.

4.18 Tribal Cultural Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	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 tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: i) Listed or eligible for listing in the California				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?		**X**		
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?		**X**		

Regulatory Setting

State

Assembly Bill 52

As of July 1, 2015, California AB 52 of 2014 was enacted and expands CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "A project with an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a TCR, when feasible (PRC Section

21084.3). PRC Section 21074 (a)(1)(A) and (B) defines TCR as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and meets either of the following criteria:

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 (PRC) section 5020.1(k), or
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 PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

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. AB 52 requires that lead agencies "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 that have requested notice of projects proposed within the jurisdiction of the lead agency.

Existing Setting

A records search was completed for the project area and within a 0.5 mile radius at the Northwest Information Center of the California Historical Resources Information System (CHRIS) May 2025. The following were tribes were identified in the CHRIS search: Big Valley Band of Pomo Indians of the Big Valley Rancheria, Cahto Tribe, Cloverdale Rancheria of Pomo Indians, Coyote Valley Band of Pomo Indians, Dry Creek Rancheria of Pomo Indians, Elem Indian Colony Pomo Tribe, Estom Yumeka Maidu Tribe of the Enterprise Rancheria, Federated Indians of Graton Rancheria, Guidiville Rancheria of California, Hopland Band of Pomo Indians, Kashia Band of Pomo Indians of the Stewarts Point Rancheria, Koi Nation of Northern California, Lytton Rancheria, Manchester Band of Pomo Indians of the Manchester Rancheria, Middletown Rancheria of Pomo Indians of California, Noyo River Indian Community, Pinoleville Pomo Nation, Potter Valley Tribe, Redwood Valley or Little River Band of Pomo Indians, Robinson Rancheria of Pomo Indians, Round Valley Reservation/ Covelo Indian Community, Scotts Valley Band of Pomo, Sherwood Valley Rancheria of Pomo, and Yokayo Tribe.

Additionally, the NAHC were contacted in November 2024 to request a search of the Sacred Lands File (SLF), as well as a contact list of Native Americans culturally affiliated with the project area. The SLF resulted in no known sacred sites or Native American cultural resources within or near the project area.

Impact Discussion

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place,

or object with cultural value to a California Native American tribe, and that is: i) Listed or eligible for listing in the California:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

And,

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less Than Significant with Mitigation Incorporated. On November 11, 2024, a records search of the Native American Heritage Commission (NAHC) Sacred Lands File was completed and results were negative. The NAHC provided 24 Native American Contacts to be contacted regarding known and recorded cultural resources sites. On August 11, 2025, the following tribes were contacted via letter from the County regarding the proposed project: Big Valley Band of Pomo Indians of the Big Valley Rancheria, Cahto Tribe, Cloverdale Rancheria of Pomo Indians, Coyote Valley Band of Pomo Indians, Dry Creek Rancheria of Pomo Indians, Elem Indian Colony Pomo Tribe, Estom Yumeka Maidu Tribe of the Enterprise Rancheria, Federated Indians of Graton Rancheria, Guidiville Rancheria of California, Hopland Band of Pomo Indians, Kashia Band of Pomo Indians of the Stewarts Point Rancheria, Koi Nation of Northern California, Lytton Rancheria, Manchester Band of Pomo Indians of the Manchester Rancheria, Middletown Rancheria of Pomo Indians of California, Noyo River Indian Community, Pinoleville Pomo Nation, Potter Valley Tribe, Redwood Valley or Little River Band of Pomo Indians, Robinson Rancheria of Pomo Indians, Round Valley Reservation/ Covelo Indian Community, Scotts Valley Band of Pomo, Sherwood Valley Rancheria of Pomo, and Yokayo Tribe. At the time of preparation of this document no tribes had requested formal consultation. Although there has not been a response from any tribes to date, there is potential for tribes to respond during the public review period for the IS/MND. Therefore, the AB 52 process is ongoing.

Due to the possible presence of unknown tribal cultural resources within the project area, construction related impacts on tribal cultural resources would be potentially significant. Though the circumstances would present a low possibility, the following mitigation measure would reduce impacts in the unanticipated discovery of cultural resources during construction. With the implementation of MM CUL-1 and MM CUL-2, impacts would be less than significant.

Cumulative Impacts

The combination of the proposed project as well as past, present, and reasonably foreseeable projects in the local area would be required to comply with all applicable State, federal, and County and local

regulations concerning preservation, salvage, or handling of cultural and paleontological resources, including compliance with required mitigation. Similar to the proposed project, these projects also would be required to implement and conform to mitigation measures, which would be likely to reduce impacts to less than significant. Although in the process of roadway improvements, some known or unknown resources may be lost, it is not anticipated that these impacts would be cumulatively considerable. In addition, implementation of MM CUL-1 and MM CUL-2 would reduce project-specific impacts to a less than significant level. Therefore, the project's contribution to cumulative impacts would be less than significant.

4.19 Utilities/Service Systems

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	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?			**X**	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			**X**	
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?				**X**
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?			**X**	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			**X**	

Regulatory Setting

State

State Water Code

Pursuant to the State Water Code, water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet (approximately 980 million gallons) of water annually must prepare and adopt an UWMP and update it every five years. As part of a UWMP, water

agencies are required to evaluate and describe their water resource supplies and projected needs over a 20-year planning horizon, water conservation, water service reliability, water recycling, opportunities for water transfers, and contingency plans for drought events. The Sweetwater Springs Water District adopted its most recent UWMP in 2021.

Assembly Bill 939

The California Integrated Waste Management Act of 1989, or AB 939, established the Integrated Waste Management Board, required the implementation of Integrated Waste Management Plans, and mandated that local jurisdictions divert at least 50 percent of solid waste generated (from 1990 levels), beginning January 1, 2000, and increase this diversion rate to at least 75 percent by 2010. AB 939 applies to a variety of waste streams, including construction and demolition waste, recognizing that construction activities can contribute significantly to the overall waste generated by a jurisdiction. Projects involving substantial construction and demolition activities are thus expected to comply with local waste diversion policies developed in response to AB 939, often through recycling or repurposing materials. Projects that would have an adverse effect on these waste diversion goals are required to include waste diversion mitigation measures, ensuring compliance with AB 939's broader objective of reducing landfill reliance and promoting sustainable waste management practices in California.

California Public Utilities Commission

The CPUC is a state regulatory agency responsible for overseeing essential utility services, including electricity, natural gas, telecommunications, water, and transportation services across California. Established in 1911, the CPUC regulates privately owned utility companies to ensure safe, reliable, and affordable service for residents and businesses while promoting environmental sustainability. The agency sets utility rates, enforces safety standards, monitors service reliability, and oversees infrastructure improvements.

Additionally, the CPUC plays a crucial role in advancing California's climate and energy goals, including renewable energy integration, greenhouse gas reduction, and energy efficiency. The CPUC develops policies and programs to support clean energy technologies, reduce emissions, and improve grid resilience. The CPUC also facilitates public input and transparency, offering a platform for stakeholders, including consumers and advocacy groups, to participate in regulatory decisions. Through its broad oversight and commitment to public welfare, the CPUC ensures that California's utility services align with state priorities and adapt to evolving energy and environmental challenges.

Regional

Sonoma County Integrated Waste Management Plan

The Sonoma County Integrated Waste Management Plan (IWMP), overseen by the Sonoma County Waste Management Agency, provides a structured framework for managing solid waste in the county and meeting California's waste diversion mandates. Originally adopted in 2003, the IWMP includes essential elements that address waste reduction, recycling, and the safe handling of hazardous materials. The Source Reduction and Recycling Element establishes strategies to minimize waste generation and promote recycling practices countywide. The Household Hazardous Waste Element outlines protocols for the proper disposal of hazardous waste, ensuring environmental protection and public safety. The Siting Element identifies suitable locations for future waste management facilities, while the Non-Disposal Facility Element details requirements for facilities that manage recycling and other waste diversion activities.

The IWMP has been periodically updated to stay aligned with California's waste management goals, with the most recent update submitted to CalRecycle in 2020. This comprehensive plan supports Sonoma County's compliance with state mandates such as AB 939, which requires local jurisdictions to achieve and maintain high levels of waste diversion. By setting policies and standards for waste reduction, recycling, and facility siting, the IWMP helps Sonoma County manage its solid waste sustainably, ensuring that the county's utilities and service systems can accommodate waste management demands effectively and responsibly within the regulatory framework.

Sonoma County Waste Management Agency

The Sonoma County Waste Management Agency, established in 1992 as a joint powers authority and now operates as Zero Waste Sonoma, leads waste reduction and recycling initiatives countywide. Created in response to AB 939, the agency implements countywide waste management policies and programs to support California's diversion and recycling goals. Zero Waste Sonoma manages hazardous waste disposal, composting, recycling programs, and coordinates efforts to achieve the county's ambitious zero-waste target by 2030. By working with local governments, community organizations, and residents, the agency ensures Sonoma County meets state mandates while promoting sustainable practices that reduce landfill use and environmental impact.

Existing Setting

Power, gas, telecommunication (fiber optic), and water utilities are located within the project area. PG&E provides gas and electricity service, and American Telephone and Telegraph Company (AT&T) provides telecommunication service. The Sonoma County Water Agency (Sonoma Water) manages water utilities within the project area.

Police protection and traffic enforcement services in the project area are provided by the Sonoma County Sherriff's Department. The California Highway Patrol has jurisdiction over Highway 116 for matters involving traffic violations and emergency services. Fire protection services in the project area are provided by the Sonoma County Fire Department. The CAL FIRE, under contract to Sonoma County, operates the Sonoma County Fire District Station No. 7 at 6554 Mirabel Road, Forestville, CA 95436, directly adjacent to the project area.

Impact Discussion

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?

Construction and Operation

Less Than Significant Impact. The proposed project would require relocation of existing electric and telecommunication utilities within the project area. The County of Sonoma is working directly with utility providers (PG&E and AT&T) to coordinate the relocations. The proposed project also includes new storm water facilities. No additional off-site storm water facilities beyond those evaluated in this Initial Study would be necessary to serve the proposed project. The proposed project would not generate wastewater or result in a substantial long-term increase in water demand. No new or

expanded water, wastewater, storm water, or other utility facilities would become necessary to serve the proposed project.

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

Construction and Operation

Less Than Significant Impact. Project construction, including the establishment of new trees and landscaping, would require a minimal amount of water use. Such water use would be sufficiently accommodated by existing water supplies. The proposed project would increase impervious surfaces and would reduce the amount of overall landscaping adjacent to Mirabel Road. The proposed project is not growth inducing and would not result in a long-term increase in water demand. No new water supplies would be required. The impact would be less than significant.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. The proposed project would not result in the generation or discharge of wastewater. No impact on wastewater capacity would result.

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?

Construction and Operation

Less Than Significant Impact. During construction, the construction contractor would be responsible for controlling and disposing of solid waste in accordance with federal, state, and local statutes and regulations. Construction waste with no practical reuse or that cannot be salvaged or recycled would be disposed of at a local landfill. Solid waste generated during construction of the proposed project would represent a small fraction of the daily permitted tonnage of local landfill facilities and would be sufficiently accommodated. Following construction, the proposed project would not generate solid waste. The impact would be less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Construction and Operation

Less Than Significant Impact. During construction, solid waste would be required to be disposed of in accordance with federal, state, and local statutes and regulations. Only construction waste with no practical reuse or that cannot be salvaged or recycled would be disposed of at a local landfill. Following construction, the proposed project would not generate solid waste. The impact would be less than significant.

Cumulative Impacts

Utilities are generally provided or delivered on a local level but often originate from sources outside local areas as most areas are served through the regional distribution system. As discussed above, the proposed project does not include any uses that would require long term utilities services within the exception of a minimal increase in water demand for landscaping. Taken in conjunction with past, present, and reasonably foreseeable projects, the overall increased demand for utilities would be incrementally small and the proposed project would not make a substantial cumulative contribution. Therefore, implementation of the proposed project would not result in a cumulatively considerable contribution to impacts on water supply and wastewater, stormwater, or solid waste generation.

4.20 Wildfire

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	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?		**X**		
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?		**X**		
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?			**X**	
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			**X**	

Regulatory Setting

Federal

International Fire Code

The International Fire Code establishes minimum regulations for fire prevention and fire protection systems using prescriptive and performance-related provisions. It is founded on broad-based principles that make possible the use of new materials and new system designs. The provisions of this code provide protection for public health, safety and welfare from the hazards of fire, explosion or dangerous conditions in buildings, structures and premises. This code includes requirements or expanded requirements for: vacant premises, indoor displays, fire protection water supply, fire apparatus access roads, key boxes, high-piled storage, tire rebuilding and tire storage, mechanical refrigeration systems, explosion control, smoke and heat vents, lead acid battery systems.

Federal Disaster Mitigation Act

The Disaster Mitigation Act of 2000 amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), creating the framework for state, local, tribal and territorial governments to engage in hazard mitigation planning to receive certain types of non-emergency disaster assistance. Since the Disaster Mitigation Act of 2000 amended the Stafford Act, additional laws have been passed that help to shape hazard mitigation policy.

National Fire Plan

The National Fire Plan (NFP) was developed in August 2000, following a landmark wildland fire season, with the intent of actively responding to severe wildland fires and their impacts to communities while ensuring sufficient firefighting capacity for the future. The NFP addresses five key points: Firefighting, Rehabilitation, Hazardous Fuels Reduction, Community Assistance, and Accountability. As it nears its fifth year, the NFP continues to provide invaluable technical, financial, and resource guidance and support for wildland fire management across the U.S. Together, the United States Department of Agriculture, Forest Service and the Department of the Interior are working to successfully implement the key points outlined in the NFP by taking the following steps: 1) Assuring that necessary firefighting resources and personnel are available to respond to wildland fires that threaten lives and property; 2) Conducting emergency stabilization and rehabilitation activities on landscapes and communities affected by wildland fire; 3) Reducing hazardous fuels (dry brush and trees that have accumulated and increase the likelihood of unusually large fires) in the country's forests and rangelands; 4) Providing assistance to communities that have been or may be threatened by wildland fire; 5) Committing to the Wildland Fire Leadership Council, an interagency team created to set and maintain high standards for wildland fire management on public lands.

State

Fire Hazard Severity Zones

CAL FIRE is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. The Fire Hazard Severity Zones maps influence how people construct buildings and protect property to reduce to reduce risk associated with wildland fires.[39] Fire Hazard Severity Zones are divided into areas where the state has financial responsibility for wildland fire protection, known as state responsibility areas (SRAs), and areas where local governments have financial responsibility for wildland fire protection, known as LRAs. Homeowners living in an SRA are responsible for ensuring that their property is in compliance with California's building and fire codes. Only lands zoned for very high fire hazard are identified within LRAs.

California Fire Code Chapter 47

Chapter 47 of the California Fire Code sets requirements for wildland-urban interface fire areas that increase the ability of buildings to resist the intrusion of flame or burning embers being projected by a vegetation fire, in addition to systematically reducing conflagration losses through the use of performance and prescriptive requirements.

[39] California Department of Forestry and Fire Protection (CAL FIRE). 2022. *Fire Hazard Severity Zones Maps*. Available: https://osfm.fire.ca.gov/fire-hazard-severity-zones-maps-2022/. Accessed: July 2023.

California Public Resources Code Section 4442 through 4431

The California Public Resources Code includes fire safety regulations that restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors on construction equipment that uses an internal combustion engine; specify requirements for the safe use of gasoline-powered tools on forest-covered land, brush-covered land, or grass-covered land; and specify fire suppression equipment that must be provided on-site for various types of work in fire-prone areas. These regulations include the following:

- Earthmoving and portable equipment with internal combustion engines would be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (Public Resources Code Section 4442);
- Appropriate fire suppression equipment would be maintained during the highest fire danger period, from April 1 to December 1 (Public Resources Code Section4428);
- On days when a burning permit is required, flammable materials would be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor would maintain appropriate fire suppression equipment (Public Resources Code Section 4427); and
- On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines would not be used within 25 feet of any flammable materials (Public Resources Code Section 4431).

California Code of Regulations Title 14

The California Board of Forestry and Fire Protection has adopted regulations, known as SRA Fire Safe Regulations, which apply basic wildland fire protection standards for building, construction, and development occurring in a SRA. The future design and construction of structures, subdivisions and developments in SRAs are required to provide for the basic emergency access and perimeter wildfire protection measures discussed in Title 14.

Fire Management Plans

CAL FIRE has developed an individual Unit Fire Management Plan for each of its 21 units and six contract counties. CAL FIRE has developed a strategic fire management plan for the Santa Clara Unit, which covers the project area and addresses citizen and firefighter safety, watersheds and water, timber, wildlife and habitat (including rare and endangered species), unique areas (scenic, cultural, and historic), recreation, range, structures, and air quality.[40] The plan includes stakeholder contributions and priorities and identifies strategic areas for pre-fire planning and fuel treatment as defined by the people who live and work with the local fire issues.

Regional

Community Wildfire Protection Plan

The Sonoma County Community Wildfire Protection Plan (CWPP), approved on May 9, 2023, is a strategic document that guides wildfire mitigation, preparedness, and response efforts across the county. It outlines regulatory and non-regulatory measures designed to enhance community safety,

[40] California Department of Forestry and Fire Protection (CAL FIRE). 2022. *CAL FIRE Santa Clara Unit Strategic Fire Plan*. May 8, 2022. Available at https://osfm.fire.ca.gov/media/hjndvue2/2022-santa-clara-contra-costa-alameda-west-stanislaus-west-sann-joaquin-unit-fire-plan.pdf . Accessed: June 2023.

reduce fire risks, and protect critical infrastructure, with a particular focus on the Wildland-Urban Interface. The CWPP aligns with state and local policies within California's fire management framework, addressing objectives established by the CAL FIRE and the County General Plan Public Safety Element. Key measures include identifying priority areas for fuel management and vegetation treatment to reduce hazardous fuels in high-risk zones, as well as implementing community preparedness and education strategies that involve public outreach, fire prevention education, and engagement in community-based resilience programs. Additionally, the CWPP emphasizes the importance of adequate fire apparatus access roads and reliable water supply systems for firefighting, aligning with standards set by the International Fire Code and CAL FIRE's access requirements. Comprehensive risk assessment and mapping within the plan identify fire hazard severity zones, accounting for topography, vegetation, and climate, which supports the prioritization of mitigation projects. Through partnerships among local agencies, fire protection districts, and community organizations, the CWPP encourages coordinated efforts for grant-funded projects and policy alignment.

Sonoma County General Plan 2020 Public Safety Element

The County General Plan Public Safety Element establishes policies and guidelines to protect public health, safety, and welfare by addressing natural and human-made hazards. This element is integral to guiding local land use planning decisions, with a focus on reducing risks related to wildfires, earthquakes, floods, landslides, and hazardous materials. For wildfire risk, the Public Safety Element emphasizes reducing vulnerability in high-risk areas by enforcing defensible space requirements, supporting fuel reduction programs, and ensuring that new developments meet fire-resistant construction standards. These policies align with the CAL FIRE and other state standards to protect properties and infrastructure within Sonoma's Wildland-Urban Interface.

Additionally, the element includes provisions for emergency preparedness and response, aiming to improve the capacity of local agencies to respond effectively to natural disasters. It outlines the need for reliable emergency evacuation routes, adequate water supply for firefighting, and regular emergency response training for residents and personnel.

Existing Setting

According to CAL FIRE'S Fire Hazard Severity Zone mapping, the project area is outside of State Responsibility and is classified as an LRA.[41] The LRA of Mirabel Road has been designated as 'high' by the Sonoma County Wildfire Risk Index. According to the Sonoma County Wildfire Hazard Index, Mirabel Road project area crosses an area categorized as a low to moderate relative hazard area.[42]

[41] Esri. 2023. California's Fire Hazard Severity Zones. Available at: https://storymaps.arcgis.com/stories/a64d596a8be941c8b28263718880e433. Accessed on: September 2024.
[42] Sonoma County. 2024. Sonoma County CWPP Hub Site. Available at: https://sonoma-county-cwpp-hub-site-sonomacounty.hub.arcgis.com/maps/5af6db5570904d23bcb406f3e497ee9b/explore?location=38.483601%2C-122.893621%2C14.00. Accessed on: September 2024.

Impact Discussion

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Construction

Less Than Significant with Mitigation Incorporated. As described in Section 4.9, impact (f), Mirabel Road in the project area is an emergency evacuation route for adjacent land uses in the area. During construction, the normal functionality of Mirabel Road may be temporarily altered with traffic controls to accommodate construction activities, which has a potentially significant impact on emergency response and evacuation. Implementation of Mitigation Measure HAZ-1, described below, would ensure adequate traffic access for the public and emergency responders during construction and during a potential evacuation scenario, reducing the impact to less than significant.

Operation

No Impact. Operation of the proposed project would not impair or interfere with the County's emergency response plan or established emergency evacuation travel routes. Mirabel Road would be restored and fully functional as an evacuation travel route following construction. No operational impact would result.

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?

Construction

Less Than Significant with Mitigation Incorporated. According to CAL FIRE'S Fire Hazard Severity Zone mapping, the project area is outside of State Responsibility and is classified as an LRA. The LRA of Mirabel Road has been designated as 'high' by the Sonoma County Wildfire Risk Index. According to the Sonoma County Wildfire Hazard Index, Mirabel Road project area crosses an area categorized as a low to moderate relative hazard area. As described in Section 4.9, impact (g), if construction activity occurs during the dry season, it is possible that accidental fire ignition could occur related to use of heavy machinery. Because vegetation along the proposed project corridor could be dry during construction, and because of the close proximity of nearby residences and other land uses, the construction-related impact is considered significant. Implementation of MM HAZ-2 would require the use of construction techniques that would reduce the likelihood of wildland fires during construction to be less than significant.

Operation

No Impact. Following construction, disturbed areas would be restored, and the proposed project would not increase the risk of wild land fires. No operational impact would result.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less Than Significant Impact. The proposed project would require relocation of existing electric and telecommunication utilities within the project area. The County of Sonoma is working directly with

utility providers (PG&E and AT&T) to coordinate the relocations. No additional off-site infrastructure beyond that evaluated in this Initial Study would be necessary to serve the proposed project. Therefore, the proposed project would not require the installation of further associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. The impact would be less than significant.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less Than Significant Impact. According to the Sonoma County Wildfire Hazard Index, the Mirabel Road project area crosses an area categorized as a low to moderate relative hazard area. According to USGS landslide mapping, the proposed project is located in an area designated primarily as "low susceptibility" with smaller areas designated as "high susceptibility" near River Road.[43] No hillsides or geologic structures known to be at risk of landslide are located adjacent to the project area. The proposed project does not involve large cuts and fills. The impact would be less than significant.

Cumulative Impacts

The LRA designates the project area as having a “high” wildfire risk according to the Sonoma County Wildfire Risk Index. However, implementation of the proposed project would not introduce any new conditions or exacerbate existing conditions that could contribute to significant cumulative impacts related to wildfires. Therefore, the cumulative impacts associated with wildfire risk are considered less than significant.

[43]United States Geological Survey (USGS). 2024. USGS Landslide Hazard Map Viewer. Available at: https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=ae120962f459434b8c904b456c82669d. Accessed on: September 2024.

4.21 Mandatory Findings of Significance

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	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?		**X**		
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)?		**X**		
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		**X**		

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?

Less Than Significant with Mitigation Incorporated. This document analyses the potential for the proposed project 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, 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.

Though the project occurs primarily within the existing roadway and ROW, **Section 4.4, Biological Resources**, identified potential impacts to special status species. With the implementation of mitigation MM BIO-1 through MM BIO-10 would be required to reduce potential impacts to less than significant.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant with Mitigation Incorporated. The analysis in this Initial Study includes an evaluation of the project impacts associated with aesthetics, agricultural and forestry resources, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire. The analysis covers a broad spectrum of topics relative to the potential for the proposed project to have environmental impacts. It was found that the proposed project would have either no impact, a less than significant impact, or a less than significant impact with the implementation of mitigation measures. These mitigation measures would also function to reduce the project's contribution to cumulative impacts. There are no significant cumulative or cumulatively considerable effects that are identified associated with the proposed project after the implementation of all mitigation measures.

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

Less Than Significant with Mitigation Incorporated. As previously discussed throughout this Initial Study, the proposed project would not result in significant environmental impacts on human beings with implementation of mitigation measures. Mitigation measures are identified in this Initial Study to reduce potential significant impacts related to air quality, biological resources, geology and soils and hazards which could otherwise affect humans. Implementation of these mitigation measures would ensure that the project would not result in impacts that would cause significant impacts on human beings, either directly or indirectly.

5.0 ACRONYMS AND ABBREVIATIONS

Acronym or Abbreviation	Definition
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ADA	Americans with Disabilities Act
APN	Assessor's Parcel Number
ARM	Aggregate Resources Management
ATCM	Airborne Toxic Control Measures
AT&T	American Telephone & Telegraph Company
BAAQMD	Bay Area Air Quality Management District
BMPs	Best Management Practices
°C	Celsius
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CARB	California Air Resources Board
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resource Recycling and Recovery
Caltrans	California Department of Transportation
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
Cal-IPC	California Invasive Plant Council
CAL-OSHA	California Occupational Safety Health Program
CAP	Climate Action Plan
CBC	California Building Standards Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission

CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CH_4	Methane
CHRIS	California Historical Resources Information System
Clean Air Plan	BAAQMD Final 2017 Clean Air Plan
CMP	Congestion Management Program
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
CNDDB	California Natural Diversity Database
CPUC	California Public Utilities Commission
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CWPP	Community Wildfire Protection Plan
dBA	Decibels
dbh	Diameter at breast height
DMA	Disaster Mitigation Act
DOC	California Department of Conservation
DPM	Diesel Particulate Matter
DTSC	California Department of Toxic Substances Control
EAP	Energy Action Plan
EIR	Environmental Impact Report
EMFAC	Emission Factor
EO	Executive Order
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
EPACT92	National Energy Policy Act of 1992
°F	Fahrenheit

FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
County General Plan	Sonoma General Plan
GHG	Greenhouse Gas
GWh	Gigawatt Hours
GWP	
HAPs	Hazardous Air Pollutants
HCP	Santa Clara Valley Habitat Plan/Natural Communities Conservation Plan
HFCs	hydrofluorocarbons
IS/MND	Initial Study/ Mitigated Negative Declaration
IWMP	Integrated Waste Management Plan
LAFCO	Local Agency Formation Commission
LEED	Leadership in Energy and Environmental Design
L_{eq}	Equivalent Continuous Sound Level
LID	Low Impact Development
LSAA	Lake or Streambed Alteration Agreement
LUST	Leaking Underground Storage Tank
LRA	Local Responsibility Area
MBTA	Migratory Bird Treaty Act
MMRP	Mitigation Monitoring and Reporting Program
MMP	Mitigation and Monitoring Plan
MMT	Million Metric Tons
MPO	Metropolitan Planning Organizations
MT	metric tons
MTC	Metropolitan Transportation Commission
MS4	Municipal Separate Storm Sewer System
MTC	Metropolitan Transportation Commission
N_2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards

NAHC	Native American Heritage Commission
NCAB	North Coast Air Basin
NCP	National Contingency Plan
NEPA	National Environmental Policy Act
NFP	National Fire Plan
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO	Nitric oxide
NO_2	Nitrogen Dioxide
NO_x	Oxides of Nitrogen
NOI	Notice of Intent
NoSoCo Air	Northern Sonoma County Air Pollution Control District
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NWL	Natural and Working Lands
Pb	Lead
PG&E	Pacific Gas & Electric
PM	Suspended Particulate Matter
$PM_{2.5}$	Fine Particulate Matter
PM_{10}	Respirable Particulate Matter
ppm	parts per million
PPV	Peak Particle Velocity
PRC	Public Resources Code
PSD	Prevention of Significant Deterioration
RCPA	Regional Climate Protection Authority
RCRA	Resource Conservation and Recovery Act
ROG	Reactive Organic Gases
ROW	Right-of-way
RPS	Renewables Portfolio Standard
SCTA	Sonoma County Transportation Authority
RWQCB	Regional Water Quality Control Board

SAFE	Safer Affordable Fuel-Efficient
SAF Plan	State Alternative Fuels Plan
SB	Senate Bill
SCP	Sonoma Clean Power
SCS	Sustainable Community Strategies
SCTA	
SF_6	sulfur hexafluoride
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SFHA	Special Flood Hazard Area
SHMA	Seismic Hazards Mapping Act
SHMP	State of California Multi-Hazard Mitigation Plan
SMARA	Surface Mining and Reclamation Act of 1975
SO_2	Sulfur Dioxide
SIP	State Implementation Plan
SR	State Route
SRA	State Responsibility Area
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TMDL	Total Maximum Daily Load
TPZ	Tree Protection Zone
U.S.	United States
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
WQCP	Water Quality Control Plan
§	Section

6.0 REFERENCES

BoDean Company. 2024. *About Us*. Available at: https://bodeancompany.com/about-us/. Accessed on: December 2024.

Sonoma County Permit and Resource Management Department (PRMD). 2023. Aggregate Resource Management: 2023 Production Report. Available at: https://permitsonoma.org/Microsites/Permit%20Sonoma/Images/Long%20Range%20Plans/Agg%20Resource%20Manage/2023%20Production%20Report.pdf. Accessed on: December 2024.

California Department of Conservation. 2023. *Williamson Act Enrollment 2023*. Available at: https://gis.conservation.ca.gov/portal/home/webmap/viewer.html?useExisting=1&layers=949ac015919145a2baadc032f0e855ac. Accessed on: September 17, 2024.

California Department of Conservation. 2024. *California Important Farmland*. Available at: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed on: September 17, 2024.

California Department of Transportation (Caltrans). 2008. Landscape Architecture Program, Scenic Highway Guidelines. October 2008.

California Geological Survey (CGS). 2024. *Fault Activity Map of California*. Available at: https://maps.conservation.ca.gov/cgs/fam/ Accessed on: September 20, 2024.

Canyon Rock Inc. 2024. *About*. Available at: https://www.canyonrockinc.com/about/. Accessed on: December 2024.

Census Reporter. 2024. *Forestville, CA - Profile Data*. Available at: https://censusreporter.org/profiles/16000US0624960-forestville-ca/. Accessed on: November 19, 2024.

EnviroStor. 2024. *EnviroStor*. Available at: https://www.envirostor.dtsc.ca.gov/public/map/?global_id=07790001. Accessed on: September 17, 2024.

Esri. 2023. *California's Fire Hazard Severity Zones.* Available at: https://storymaps.arcgis.com/stories/a64d596a8be941c8b28263718880e433. Accessed on: September 24, 2024.

Forestville Chamber of Commerce. 2024. Local Recreation: Forestville River Access. Available at: https://www.forestvillechamber.org/local-recreation/. Accessed on: November 19, 2024.

Forestville Union Elementary School District. 2024. Forestville Union Elementary School District Website. Available at: https://forestvilleusd.org/. Accessed on: November 19, 2024.

Forestville Youth Park. 2024. *Forestville Youth Park Website*. Available at: https://www.forestvilleyouthpark.org. Accessed on: November 19, 2024.

Sonoma County. 2001. *Blue Rock Quarry Expansion PLP 97-0069 (UPE/ZCE)*. Available at: https://ceqanet.opr.ca.gov/2001032062. Accessed on: November 19, 2024.

Sonoma County. 2008. *Sonoma County General Plan 2020; Land Use Element*.

Sonoma County. 2012. *Sonoma County General Plan: Noise Element*. Available at: https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Long%20Range%20Plans/General-Plan-Noise-Element.pdf. Accessed on: November 5, 2024.

Sonoma County. 2014. *Sonoma County General Plan: Public Safety Element*. Available at: https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Divisions/Planning/Long%20Range%20Plans/General-Plan-Public-Safety-Element.pdf. Accessed on: November 5, 2024.

Sonoma County. 2016. *Sonoma County General Plan: Circulation and Transit Element*. Available at: https://www.sonomacountypermits.org/Microsites/Permit%20Sonoma/Documents/Archive/_Documents/General-Plan-Circulation-and-Transit.pdf. Accessed on: November 5, 2024.

Sonoma County. 2020. *Land Use Countywide - Figure 1*. Available at: https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Long%20Range%20Plans/Land%20Use%20Countywide%20-%20Fig%201.pdf. Accessed on: November 19, 2024.

Sonoma County GIS. 2024. Evacuation Zones Map SON-4B1. Available at: https://socogisweb.sonomacounty.ca.gov/images/dem/evacuation_zone_maps/Evacuation_Zones_SON-4B1.pdf. Accessed on: September 2024.

Sonoma County. 2024. *Sonoma County CWPP Hub Site*. Available at: https://sonoma-county-cwpp-hub-site-sonomacounty.hub.arcgis.com/maps/5af6db5570904d23bcb406f3e497ee9b/explore?location=38.483601%2C-122.893621%2C14.00. Accessed on: September 25, 2024.

Sonoma County Permit Sonoma. 2024. *Parcel Search*. Available at: https://parcelsearch.permitsonoma.org/ParcelSearch. Accessed on: September 17, 2024.

Sonoma County Permit and Resource Management Department (PRMD). 2023. Aggregate Resource Management: 2023 Production Report. Available at: https://permitsonoma.org/Microsites/Permit%20Sonoma/Images/Long%20Range%20Plans/Agg%20Resource%20Manage/2023%20Production%20Report.pdf. Accessed on: December 2024.

Sonoma County Transit. 2024. *Route 20: Maps and Schedules*. Available at: https://sctransit.com/maps-schedules/route-20/. Accessed on: November 19, 2024.

Sonoma County Transportation Authority. 2014. *Sonoma County Bicycle and Pedestrian Plan Update*. Available at: https://scta.ca.gov/wp-content/uploads/2016/07/BikePedPlanUpdate2014_final.pdf. Accessed on: November 5, 2024.

Sonoma County Waste Management Agency. 2024. *Countywide Integrated Waste Management Plan*. Available at: https://zerowastesonoma.gov/uploads/reports/CoIWMP_Combined.pdf. Accessed on: November 5, 2024.

Sonoma County. 2024. *Parcel Search*. Available at: https://parcelsearch.permitsonoma.org/ParcelSearch. Accessed on: November 19, 2024.

United States Geological Survey (USGS). 2006. *Liquefaction Susceptibility*. Available at: https://earthquake.usgs.gov/education/geologicmaps/liquefaction.php Accessed on: September 20, 2024.

United States Geological Survey (USGS). 2024. *USGS Landslide Hazard Map Viewer*. Available at: https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=ae120962f459434b8c904b456c82669d Accessed on: September 20, 2024.

U.S. Census Bureau. 2024. *QuickFacts: California*. Available at: https://www.census.gov/quickfacts/fact/table/CA/HSG860219. Accessed on: November 19, 2024.