

PLANS



**CYPRESS POINT
AFFORDABLE HOUSING
COMMUNITY**

**ENVIRONMENTAL
IMPACT REPORT**

SCH NO. 2022120189

SUBMITTED TO

County of San Mateo Planning and Building Department
455 County Center, 2nd Floor
Redwood City, California 94063

August 2023

PREPARED BY

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**DRAFT ENVIRONMENTAL IMPACT REPORT
FOR THE CYPRESS POINT AFFORDABLE HOUSING
COMMUNITY PROJECT,
SAN MATEO COUNTY, CALIFORNIA**

Prepared for

County of San Mateo Planning and Building Department
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SWCA Project No. 73999

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CONTENTS

Executive Summary	ES-1
1. Purpose of the EIR	ES-1
2. Project Location	ES-1
3. Project Background and Overview.....	ES-1
4. Project Objectives.....	ES-2
5. Significant Environmental Impacts Identified.....	ES-2
6. Alternatives	ES-32
7. Areas of Known Controversy.....	ES-33
Chapter 1. Introduction	1-1
1.1 Project Background	1-1
1.2 Purpose of Environmental Review.....	1-2
1.3 Environmental Review Process.....	1-3
1.3.1 Notice of Preparation.....	1-3
1.3.2 Draft Environmental Impact Report.....	1-4
1.3.3 How to Comment on the Draft Environmental Impact Report.....	1-5
1.3.4 Final Environmental Impact Report	1-5
1.4 Environmental Impact Report Contents	1-6
Chapter 2. Project Description.....	2-1
2.1 Overview	2-1
2.2 Project Location	2-1
2.2.1 Regional Setting	2-1
2.2.2 Local Setting.....	2-1
2.3 Existing Conditions	2-4
2.3.1 Land Use and Zoning	2-4
2.3.2 Site Development History	2-5
2.3.3 Existing Site Conditions.....	2-6
2.3.4 Existing Vehicle Access	2-6
2.3.5 Existing Utilities.....	2-6
2.4 Project Objectives.....	2-7
2.5 Project Characteristics.....	2-8
2.5.1 Proposed Local Resident Selection	2-8
2.5.2 Proposed Project Facilities	2-8
2.5.3 Parking, Circulation, and Access.....	2-19
2.5.5 Site Design and Pedestrian Circulation	2-20
2.5.6 Landscaping.....	2-24
2.5.7 Utilities	2-24
2.5.8 Sustainability Features.....	2-27
2.5.9 Environmental Commitments from Project Sponsor.....	2-27
2.6 Construction	2-28
2.7 Project Approvals (Requested Actions and Required Permits).....	2-30
Chapter 3. Environmental Impacts Analysis	3-1
Impact Overview	3-1
Scope of Analysis.....	3-1
Initial Study Topics.....	3-1

Environmental Impact Report Topics	3-2
Format of Environmental Topic Sections	3-2
Existing Conditions	3-3
Regulatory Setting	3-3
Thresholds of Significance	3-3
Impacts and Mitigation Measures	3-3
Approach to Cumulative Impact Analysis	3-4
Projects Included in Cumulative Conditions Scenario	3-5
3.1 Aesthetics	3.1-1
3.1.1 Existing Conditions	3.1-1
3.1.2 Regulatory Setting	3.1-7
3.1.3 Thresholds of Significance	3.1-12
3.1.4 Impact Assessment and Methodology	3.1-13
3.1.5 Impacts and Mitigation Measures	3.1-14
3.1.6 Cumulative Impacts	3.1-23
3.2 Air Quality	3.2-1
3.2.1 Environmental Setting	3.2-1
3.2.2 Regulatory Setting	3.2-8
3.2.3 Thresholds of Significance	3.2-15
3.2.4 Impact Assessment and Methodology	3.2-19
3.2.5 Impacts and Mitigation Measures	3.2-20
3.2.6 Cumulative Impacts	3.2-30
3.3 Biological Resources	3.3-1
3.3.1 Existing Conditions	3.3-1
3.3.2 Regulatory Setting	3.3-7
3.3.3 Thresholds of Significance	3.3-14
3.3.4 Impact Assessment and Methodology	3.3-15
3.3.5 Impacts and Mitigation Measures	3.3-15
3.3.6 Cumulative Impacts	3.3-23
3.4 Geology and Soils	3.4-1
3.4.1 Existing Conditions	3.4-1
3.4.2 Regulatory Setting	3.4-7
3.4.3 Thresholds of Significance	3.4-13
3.4.4 Impact Assessment and Methodology	3.4-13
3.4.5 Impacts and Mitigation Measures	3.4-14
3.4.6 Cumulative Impacts	3.4-18
3.5 Greenhouse Gas Emissions and Climate Change	3.5-1
3.5.1 Environmental Setting	3.5-1
3.5.2 Regulatory Setting	3.5-4
3.5.3 Thresholds of Significance	3.5-15
3.5.4 Impact Assessment and Methodology	3.5-17
3.5.5 Impacts and Mitigation Measures	3.5-17
3.5.6 Cumulative Impacts	3.5-22
3.6 Hazards and Hazardous Materials	3.6-1
3.6.1 Existing Conditions	3.6-2
3.6.2 Regulatory Setting	3.6-8
3.6.3 Thresholds of Significance	3.6-17
3.6.4 Impact Assessment and Methodology	3.6-18
3.6.5 Impacts and Mitigation Measures	3.6-18

3.6.6	Cumulative Impacts	3.6-27
3.7	Hydrology and Water Quality	3.7-1
3.7.1	Existing Conditions	3.7-1
3.7.2	Regulatory Setting	3.7-8
3.7.3	Thresholds of Significance	3.7-17
3.7.4	Impact Assessment and Methodology	3.7-18
3.7.5	Cumulative Impacts	3.7-24
3.8	Land Use and Planning	3.8-1
3.8.1	Existing Conditions	3.8-1
3.8.2	Regulatory Setting	3.8-4
3.8.3	Thresholds of Significance	3.8-11
3.8.4	Impact Assessment and Methodology	3.8-12
3.8.5	Impacts and Mitigation Measures	3.8-12
3.8.6	Cumulative Impacts	3.8-14
3.9	Noise	3.9-1
3.9.1	Environmental Setting	3.9-1
3.9.2	Regulatory Setting	3.9-7
3.9.3	Thresholds of Significance	3.9-10
3.9.4	Impact Assessment and Methodology	3.9-10
3.9.5	Impacts and Mitigation Measures	3.9-11
3.9.6	Cumulative Impacts	3.9-18
3.10	Transportation	3.10-1
3.10.1	Environmental Setting	3.10-2
3.10.2	Regulatory Setting	3.10-6
3.10.3	Impacts Analysis and Mitigation Measures	3.10-19
3.11	Utilities and Service Systems	3.11-1
3.11.1	Existing Conditions	3.11-1
3.11.2	Regulatory Setting	3.11-6
3.11.3	Thresholds of Significance	3.11-15
3.11.4	Impact Assessment and Methodology	3.11-15
3.11.5	Impacts and Mitigation Measures	3.11-15
3.11.6	Cumulative Impacts	3.11-19
3.12	Wildfire	3.12-1
3.12.1	Existing Conditions	3.12-1
3.12.2	Regulatory Setting	3.12-4
3.12.3	Thresholds of Significance	3.12-9
3.12.4	Impact Assessment and Methodology	3.12-10
3.12.5	Impacts and Mitigation Measures	3.12-10
3.12.6	Cumulative Impacts	3.12-15
Chapter 4.	Alternatives Analysis	4-1
4.1	Introduction	4-1
4.2	Alternatives Selection	4-2
4.2.1	Project Objectives	4-2
4.2.2	Significant Impacts Resulting from the Proposed Project	4-2
4.2.3	Alternatives Development and Analysis Process	4-8
4.2.4	Preliminary Alternatives Screening Process	4-8
4.2.5	Alternative Project Evaluation Process	4-9
4.3	Alternatives Considered and Rejected	4-9
4.3.1	Development of Entire Site Alternative	4-9

4.3.2	Maximum Density Development Alternative.....	4-10
4.4	Alternatives Impacts Analysis.....	4-11
4.4.1	Alternative 1: No Project Alternative.....	4-11
4.4.2	Alternative 2: Reduced Residential Units.....	4-16
4.4.3	Alternative 3: South Moss Beach Site.....	4-23
4.4.4	Alternative 4: El Granada Site.....	4-31
4.5	Environmentally Superior Alternative.....	4-39
Chapter 5.	Other CEQA Considerations.....	5-1
5.1	Growth-Inducing Impacts.....	5-1
5.1.1	Removal of an Impediment to Growth.....	5-1
5.1.2	Economic Expansion or Growth.....	5-2
5.1.3	Establishment of a Precedent-Setting Action.....	5-2
5.1.4	Development or Encroachment into an Isolated Area.....	5-3
5.2	Irreversible Commitment of Resources.....	5-3
5.3	Significant Unavoidable Environmental Effects.....	5-4
Chapter 6.	Report Preparation.....	6-1
6.1	CEQA Lead Agency.....	6-1
6.2	Project Applicant Team.....	6-1
6.2.1	Consulting team:.....	6-1
6.3	SWCA Environmental Consultants.....	6-2
6.4	Fehr & Peers.....	6-3

Appendices

Appendix A:	Notice of Preparation
Appendix B:	CEQA Initial Study
Appendix C:	Air Quality and Greenhouse Gas Technical Report
Appendix D:	Biological Impact Report
Appendix E:	Arborist Report
Appendix F:	Geotechnical Investigation
Appendix G:	Cultural Resources Evaluation
Appendix H:	Phase I Environmental Site Assessment
Appendix I:	Limited Phase II Subsurface Investigation
Appendix J:	Draft Site Management Plan
Appendix K:	Additional Subsurface Investigation and Water Well Evaluation
Appendix L:	Water Well Sampling and Well Destruction
Appendix M:	Environmental Site Investigation Responses to Comments
Appendix N:	Wildfire and Evacuation Route Assessment
Appendix O:	Noise and Vibration Assessment
Appendix P:	Noise Assessment Update of Proposed Tree Removal Activities
Appendix Q:	Traffic Impact Analysis and Mitigation Plan
Appendix R:	Traffic Impact Analysis Peer Review and Vehicle Miles Traveled Analysis
Appendix S:	Energy Technical Report

Figures

Figure 2.2-1. Project location map.....	2-2
Figure 2.2-2. Project vicinity map.	2-3
Figure 2.5-1. Project site plan.	2-10
Figure 2.5-2. Building materials.	2-11
Figure 2.5-3. Building Type A.....	2-13
Figure 2.5-4. Building Type B.....	2-14
Figure 2.5-5. Building Type C1.....	2-15
Figure 2.5-6. Building Type C2.....	2-16
Figure 2.5-7. Building Type D.....	2-17
Figure 2.5-8. Building Type E.	2-18
Figure 2.5-9. Community building.	2-21
Figure 2.5-10. Project landscaping and amenities.	2-22
Figure 2.5-11. Site access and circulation.....	2-23
Figure 2.5-12. Drainage management areas.....	2-26
Figure 3-1. Cumulative projects.....	3-8
Figure 3.1-1. Existing conditions on project site.	3.1-2
Figure 3.1-2. Highway 1 Scenic Corridor.....	3.1-4
Figure 3.1-3. Highway 1 existing visual conditions.	3.1-5
Figure 3.1-4. Before and after views, looking northwest from Lincoln Street.	3.1-15
Figure 3.1-5. Before and after views, looking northeast from Sierra Street.	3.1-16
Figure 3.1-6. Before and after views, looking east from southwest corner of project site near Carlos Street.	3.1-18
Figure 3.3-1. Vegetation communities.....	3.3-2
Figure 3.3-2. Critical habitat map.	3.3-6
Figure 3.4-1. Quaternary fault lines.	3.4-4
Figure 3.4-2. U.S. Geological Survey landslide inventory.	3.4-6
Figure 3.7-1. Fitzgerald Area of Special Biological Significance watershed.	3.7-2
Figure 3.7-2. FEMA flood hazard zone.	3.7-5
Figure 3.7-3. Tsunami hazard area.....	3.7-6
Figure 3.7-4. Groundwater basins in the project vicinity.....	3.7-7
Figure 3.8-1. County of San Mateo General Plan land use map.....	3.8-2
Figure 3.8-2. County of San Mateo zoning map.....	3.8-3
Figure 3.9-1. Noise measurement locations.....	3.9-6
Figure 3.10-1. Regional and local transportation network.....	3.10-3
Figure 3.10-2. Coastal Transportation Analysis Zones.....	3.10-37
Figure 3.12-1. CAL FIRE FHSZ classifications.	3.12-3
Figure 3.12-2. Landscaping amenities.	3.12-13
Figure 4.4-1. Off-Site Alternatives.	4-24

Tables

Table 1.3-1. Summary of Scoping Comments.....	1-3
Table 2.5-1. Building Characteristics	2-9
Table 2.5-2. Drainage Management Areas	2-25

Table 2.6-1. Anticipated Construction Schedule, Trips, and Equipment.....	2-29
Table 2.7-1. Agency Permit Requirements.....	2-30
Table 3-1. Cumulative Projects.....	3-7
Table 3.2-1. Criteria Air Pollutant Health Effects Summary.....	3.2-2
Table 3.2-2. Summary of Ambient Air Quality Monitoring Summary.....	3.2-6
Table 3.2-3. State and Federal Ambient Air Quality Standards.....	3.2-8
Table 3.2-4. BAAQMD Regional (Mass Emission) Criteria Air Pollutant Significance Thresholds...	3.2-16
Table 3.2-5. Unmitigated Construction Emissions Summary.....	3.2-22
Table 3.2-6. Mitigated Construction Emissions Summary.....	3.2-23
Table 3.2-7. Unmitigated Operational Emissions Summary.....	3.2-25
Table 3.5-1. Global Warming Potentials.....	3.5-3
Table 3.5-2. California GHG Inventory.....	3.5-14
Table 3.5-3. Estimated Annual Construction GHG Emissions.....	3.5-19
Table 3.5-4. Estimated Annual Operational GHG Emissions.....	3.5-20
Table 3.7-1. Drainage Management Areas.....	3.7-22
Table 3.9-1. Average Human Ability to Perceive Changes in Sound Levels.....	3.9-2
Table 3.9-2. Sound Levels of Representative Sounds and Noises.....	3.9-3
Table 3.9-3. Reaction of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels.....	3.9-5
Table 3.9-4. Summary of Short-Term Noise Measurement Data (dBA).....	3.9-7
Table 3.9-5. Receiving Land Use: Single or Multiple Family Residence, School, Hospital, Church, or Public Library Properties.....	3.9-9
Table 3.9-6. Interior Noise Level Standards – Dwelling Unit.....	3.9-9
Table 3.9-7. Typical Ranges of Construction Noise Levels (by construction phase) at 50 Feet, L_{eq} (dBA).....	3.9-12
Table 3.9-8. Typical Ranges of Construction Noise Levels (by equipment type) at 50 Feet, L_{max} (dBA).....	3.9-13
Table 3.9-9. Summary of Short-Term Noise Measurement Data (dBA).....	3.9-16
Table 3.10-1. Connect the Coastside Project Recommendations.....	3.10-18
Table 3.10-2. Intersection Level of Service – Existing Conditions without Project.....	3.10-27
Table 3.10-3. Intersection Level of Service – Cumulative Conditions (2040) without Project.....	3.10-27
Table 3.10-4. Project Trip Generation.....	3.10-29
Table 3.10-5. Intersection Level of Service – Existing Plus Project Conditions.....	3.10-29
Table 3.10-6. Intersection Level of Service – Cumulative Plus Project Conditions.....	3.10-31
Table 3.10-7. Range of Potential VMT Reductions.....	3.10-38
Table 3.10-8. Parking Requirements for Proposed Project.....	3.10-48
Table 3.10-9. Average Estimated Parking Demand for Proposed Project.....	3.10-49
Table 3.11-1. SAM WWTP Influent Flows.....	3.11-4
Table 3.11-2. Sewage Treatment Capacity to be Reserved for Priority Land Uses.....	3.11-13
Table 3.11-3. Amount of Water Capacity to be Reserved for Priority Land Uses.....	3.11-13
Table 3.12-1. Travel Times with and without Proposed Development.....	3.12-11
Table 4.2-1. Summary of Potentially Significant and Significant Impacts with Identified Mitigation Measures.....	4-4
Table 4.4-1. Attainment of Project Objectives: Alternative 1, No Project Alternative.....	4-11
Table 4.4-2. Attainment of Project Objectives: Alternative 2, Reduced Residential Units Alternative..	4-17
Table 4.4-3. Attainment of Project Objectives: Alternative 3, South Moss Beach Site.....	4-23
Table 4.4-4. Attainment of Project Objectives: Alternative 4. El Granada Site.....	4-32

Acronyms and Abbreviations

Acronym	Term
°F	degrees Fahrenheit
AAQS	ambient air quality standards
AB	Assembly Bill
ADA	Americans with Disabilities Act
amsl	above mean sea level
APN	Assessor's Parcel Number
ATCM	Airborne Toxic Control Measure
BAAQMD	Bay Area Air Quality Management District
BAU	business-as-usual
BIR	biological impact report
BMP	best management practice
BSC	Building Standards Commission
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy [standards]
CalEEMod	California Emission Estimator Model
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCC	California Coastal Commission
CCIC	Central Coast Information Center
CCR	California Code of Regulations
CD	Coastal Development District
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGF	California Fish and Game Code
CFR	Code of Federal Regulations
CH ₄	methane
CHRIS	California Historical Resources Information System
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level

Cypress Point Affordable Housing Community Project Environmental Impact Report
Acronyms and Abbreviations

Acronym	Term
CNG	compressed natural gas
CNPS	California Native Plant Society
CO	carbon monoxide
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CWA	Clean Water Act
CY	cubic yards
dB	decibel
SMA	drainage management areas
EIR	environmental impact report
EISA	Energy Independence and Security Act
EMFAC	EMission FACTors [model]
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	federal Endangered Species Act
EV	electric vehicle
FAA	Federal Aviation Administration
GHG	greenhouse gas
gpm	gallons per minute
GWP	global warming potential
HCP	Habitat Conservation Plan
HFC	hydrofluorocarbon
HM	hydromodification management
HRA	health risk assessment
IPaC	Information for Planning and Consultation
IS/NOP	Initial Study/Notice of Preparation
ITP	Incidental Take Permit
LCP	Local Coastal Program
LED	light-emitting diode
LEV	Low-Emission Vehicle
LID	Low Impact Development
LNG	liquefied natural gas
MBTA	Migratory Bird Treaty Act
MidPen	MidPen Housing Corporation
MMRP	Mitigation Monitoring and Reporting Program
MMTCO ₂ e	Million Metric Tons of Carbon Dioxide Emissions
mph	miles per hour
MRP	Municipal Regional Permit
MWSD	Montara Water and Sanitary District

Cypress Point Affordable Housing Community Project Environmental Impact Report
Acronyms and Abbreviations

Acronym	Term
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	California Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Policy Act
NF ₃	nitrogen trifluoride
NHSTA	National Highway Traffic Safety Administration
NO	nitrogen oxide
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NOAA Fisheries	National Oceanic and Atmospheric Administration National Marine Fisheries Service
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O ₃	ozone
Pb	lead
PFC	perfluorocarbon
PG&E	Pacific Gas and Electric Company
PM ₁₀	particulate matter less than 10 microns in diameter
PM _{2.5}	particulate matter less than 2.5 microns in diameter
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
ppm	parts per million
PRC	Public Resources Code
prject	Cypress Point Affordable Housing Community Project
PUD	Planned Unit Development
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SAFE	Safer Affordable Fuel-Efficient [Vehicles Rule]
SB	Senate Bill
SCH	State Clearinghouse
SF ₆	sulfur hexafluoride
SFBAAB	San Francisco Bay Area Air Basin
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SP	service population
SR	State Route
SSC	Species of Special Concern

Cypress Point Affordable Housing Community Project Environmental Impact Report
Acronyms and Abbreviations

Acronym	Term
SWCA	SWCA Environmental Consultants
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCM	Transportation Control Measure
TDM	transportation demand management
US	U.S. Route
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USEIA	U.S. Energy Information Administration
USFWS	U.S. Fish and Wildlife Service
VMT	vehicle miles traveled
VOC	volatile organic compound
WDR	waste discharge requirement
WHO	World Health Organization
ZEV	zero-emission vehicle
ZNE	zero net energy

EXECUTIVE SUMMARY

1. PURPOSE OF THE EIR

The County of San Mateo (County) received a development application from MidPen Housing Corporation (MidPen) for the proposed Cypress Point Affordable Housing Community Project (project). The project proposes the development of 70 affordable housing units and a manager's unit on an 11.02-acre parcel in the unincorporated community of Moss Beach.

This draft environmental impact report (EIR) evaluates the potential environmental effects of the proposed project with the intention to provide the public, relevant public agencies, and stakeholders information about the proposed project and its potential environmental effects. For the purposes of compliance with the California Environmental Quality Act (CEQA), this document evaluates the project under CEQA (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.).

2. PROJECT LOCATION

The project site is located on an 11.02-acre parcel adjacent to the northeast corner of Carlos Street and Sierra Street in the unincorporated community of Moss Beach, San Mateo County, California. The parcel is designated as Assessor's Parcel Number (APN) 037-022-070. The project site is bounded by vacant land to the southwest (towards State Route 1), residential properties along 16th Street to the northwest (in the community of Montara), and residential properties along Carlos, Sierra, and Lincoln Streets on the other two sides. Individual houses along Stetson Street and Buena Vista Street also border the property.

3. PROJECT BACKGROUND AND OVERVIEW

The project involves development of 71 residential units on an 11.02-acre parcel within the unincorporated community of Moss Beach in San Mateo County, California. The project requires amendment of the General Plan to redesignate the parcel from Medium-High Density Residential to Medium Density Residential.

Public outreach began in 2016, when MidPen conducted voluntary outreach to understand community concerns prior to applying to the County for a pre-application workshop. MidPen held three community open houses in 2016 (on March 16, July 11, and August 18) to discuss project conceptualization.

San Mateo County sponsored a public workshop on September 20, 2017, from 6:00 to 8:00 p.m. at the El Granada Elementary School in El Granada, California. Consistent with Section 6415.4 of the County of San Mateo Zoning Code, the purpose of the facilitated public workshop was to allow community members and public agency representatives the opportunity to provide project input on the pre-application and prior to the preparation of final development plans.

Community members had opportunities to provide input on September 27, 2017, at a meeting of the Midcoast Community Council (an elected advisory body representing the community where the project is located), and at San Mateo County Planning Commission hearings on January 22, 2020, and June 10, 2020. Public comment was heard during a Board of Supervisors hearing on July 21, 2020.

4. PROJECT OBJECTIVES

MidPen seeks to achieve the following objectives by undertaking the proposed project and provide affordable housing on the coastal portion of San Mateo County:

1. Provide a significant number of low-income affordable housing units in a vibrant, safe, well-designed community that respects the coastal character of the region, consistent with the San Mateo County Housing Element Adequate Site Inventory.
2. Provide affordable housing in the region at cost-effective densities that are competitive for financing.
3. Address housing needs of households, families, and workers in the Midcoast and surrounding region.
4. Provide housing for a diverse range of low-income workers and families.
5. Improve the jobs/housing balance and jobs/housing fit in the region by providing affordable dwelling units near coastal jobs.
6. Provide informal recreational opportunities for residents in the region and the general public by providing access to a trail on undeveloped portions of the site.
7. Be consistent with the character of the surrounding neighborhood by adhering to the existing development guidelines to the extent feasible.

5. SIGNIFICANT ENVIRONMENTAL IMPACTS IDENTIFIED

Impacts of the proposed project and alternatives have been classified using the categories described below:

- **Significant, unavoidable, adverse impacts:** Significant impacts that cannot be fully and effectively mitigated. No measures could be taken to avoid or reduce these adverse effects to insignificant or negligible levels.
- **Significant, but mitigable impacts:** These impacts are potentially similar in significance to those of significant, unavoidable, adverse impacts, but can be reduced or avoided by the implementation of mitigation measures.
- **Less than significant impacts:** Mitigation measures may still be required for these impacts as long as there is rough proportionality between the environmental impacts caused by the project and the mitigation measures imposed on the project.

The term “significance” is used throughout the EIR to characterize the magnitude of the projected impact. For the purpose of this EIR, a significant impact is a substantial or potentially substantial change to resources in the local proposed project area or the area adjacent to the proposed project. In the discussions of each issue area, thresholds are identified that are used to distinguish between significant and insignificant impacts. To the extent feasible, distinctions are also made between local and regional significance and short-term versus long-term duration. Where possible, measures have been identified to reduce project impacts to less than significant levels. CEQA requires that public agencies should not approve projects as proposed if there are feasible mitigation measures available which would substantially lessen the environmental effects of such projects (CEQA Statute §21002). Included with each mitigation measure are the plan requirements needed to ensure that the mitigation is included in the plans and construction of the project and the required timing of the action (e.g., prior to development of final construction plans, prior to commencement of construction, prior to operation, etc.).

The impacts and associated mitigation measures are shown in Table ES-1, Summary of EIR Impacts and Mitigation Measures. Table ES-1 includes all impacts, including those described in the EIR and those described separately in the initial study (see EIR Appendix B). This table should not be relied upon for a thorough understanding of the proposed project and its associated impacts and mitigation needs; instead it is presented for the reader as an overview of impacts and mitigation measures of the proposed project. Please refer to the relevant environmental topic sections in EIR Chapter 3, Environmental Impacts Analysis, and the initial study (see EIR Appendix B) for a thorough discussion and analysis of project-level and cumulative environmental impacts and the mitigation measures identified to address those impacts, as well as the basis for any proposed improvement measures.

The impact summary table describes and classifies each impact, lists recommended mitigation when applicable, and states the level of residual impact (i.e., impact after implementation of mitigation).

Table ES-1. Summary of EIR Impacts and Mitigation Measures

Impacts	Mitigation Measures	Residual Impacts
AESTHETICS		
AES-1: The project could have a substantial adverse effect on a scenic vista, views from existing residential areas, public lands, water bodies, or roads.	No mitigation required.	Less than significant
AES-2: The project could substantially damage or destroy scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No mitigation required.	Less than significant
AES-3: The project could, in nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings, such as significant change in topography or ground surface relief features, and/or development on a ridgeline. (Public views are those that are experienced from publicly accessible vantage point.) In an urbanized area, the project could conflict with applicable zoning and other regulations governing scenic quality.	No mitigation required.	Less than significant
AES-4: The project could create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No mitigation required.	Less than significant
AES-5: The project could be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor	No mitigation required.	Less than significant
AES-6: If within a Design Review District, would the project conflict with applicable General Plan or Zoning Ordinance provisions?	No mitigation required.	Less than significant
AES-7: Would the project visually intrude into an area having natural scenic qualities?	No mitigation required.	Less than significant
AIR QUALITY		
Impact AQ-1: Would the project conflict with or obstruct implementation of the applicable air quality plan	No mitigation required.	Less than significant
Impact AQ-2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	MM-AQ-2a Implement BAAQMD BMPs During any construction period ground disturbance, the applicant shall ensure that the general contractor implements measures to control dust and exhaust. MidPen would include terms in all construction contracts related to the Cypress Point project that require contractors to implement the following BMPs: <ul style="list-style-type: none"> • Exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, unpaved access roads) shall be watered with non-potable water two times per day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. 	Less than significant

Impacts	Mitigation Measures	Residual Impacts
	<ul style="list-style-type: none"> • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All roadways, driveways, and sidewalks shall be paved as soon as possible. • Idling times shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure in Title 13, Section 2485 of the CCR). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. • A publicly visible sign shall be posted with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours of a complaint or issue notification. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations. • All vehicle speeds on unpaved roads shall be limited to 15 miles per hour. • Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. 	
	<p>MM-AQ-2b Use Low Diesel Particulate Matter Exhaust Construction Equipment</p> <p>Prior to initiating any construction activities, MidPen or their contractors shall develop a plan demonstrating that the off-road equipment used on-site to construct the project would achieve a fleet-wide average of at least 78% reduction in DPM emissions compared to the emissions calculated for the project without mitigation. One feasible plan to achieve this reduction would include the following: all mobile diesel-powered off-road equipment larger than 25 horsepower and operating on-site for more than 2 days shall meet, at a minimum, EPA particulate matter emissions standards for Tier 4 engines or equivalent. Note that the construction contractor could use other measures to minimize construction period DPM emissions to reduce the estimated cancer risk below the thresholds. The use of equipment that meets EPA Tier 2 standards and includes CARB-certified Level 3 Diesel Particulate Filters or alternatively fueled equipment (i.e., non-diesel) would meet this requirement. Other measures may be the use of added exhaust devices, or a combination of measures, provided that these measures are approved by the County and demonstrated to reduce community risk impacts to less than significant.</p>	<p>Less than significant</p>

Impacts	Mitigation Measures	Residual Impacts
AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations, as defined by the Bay Area Air Quality Management District?	MM-AQ-2a and MM-AQ-2b	Less than significant with mitigation
AQ-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people	No mitigation required.	Less than significant
Impact C-AQ-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to air quality?	No mitigation required.	Less than significant
BIOLOGICAL RESOURCES		
Impact BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<p>MM-BIO-1. The following general measures shall be implemented during the project:</p> <ul style="list-style-type: none"> a) Prior to the start of the project, all construction crew members, including the project stormwater inspector, will attend an environmental awareness training presented by a qualified biologist. A training brochure describing special-status species, project avoidance and minimization measures, key contacts, and potential consequences of impacts to special-status species and potentially jurisdictional features will be distributed to the crew members during the training. During the training the qualified biologist will review with the project stormwater inspector the requirement of weekly inspection of wildlife exclusion fencing as described in MM-BIO-1m. Trainees will sign an environmental training attendance sheet. b) If any animals are encountered during project activities, said animals shall be allowed to leave the work area unharmed. Animals shall not be picked up or moved in any way. c) During project activities, all trash that may attract predators shall be properly contained, removed, and disposed of regularly. Following construction, trash/construction debris shall be removed from work areas. d) Construction materials, including, but not limited to, wooden pallets, best management practices (BMPs), equipment, or other materials, that are left on the ground for more than 24 hours shall be inspected before and during moving of the materials to prevent potential impacts to animals that may have utilized the materials as a temporary refuge. Plastic pipes, if used, shall be covered with material to prevent animals from entering the pipes. e) The number of access routes, number and size of staging areas, and total area of the activity shall be limited to the minimum necessary to complete the project, and their boundaries shall be clearly demarcated. 	Less than significant with mitigation

Impacts	Mitigation Measures	Residual Impacts
	<p>f) Disturbance to vegetation shall be kept to the minimum necessary to complete the project activities. To minimize impacts to vegetation, a qualified biologist shall work with the contractor to designate the work area and any staging areas and clearly delineate areas that shall be avoided with exclusion fencing (e.g., high-visibility orange construction fencing, silt fence, ERTEC fencing, or other similar material).</p> <p>The following measure shall be implemented to minimize impacts to special-status plant species:</p> <p>g) Prior to the start of construction, a preconstruction survey for Choris's popcorn flower shall be conducted during the appropriate blooming period. Choris's popcorn flower occurrences within 50 feet of the project work areas shall be flagged for avoidance by the project. If the project cannot avoid impacts to this species, the project Proponent shall consult with the CDFW on appropriate measures and/or actions to protect or salvage the plant(s) prior to beginning construction.</p> <p>The following measures shall be implemented to minimize impacts to special-status amphibians and reptiles:</p> <p>h) A qualified biological monitor shall be present during all initial ground-disturbing activities, including grubbing and/or vegetation removal and installation of the wildlife exclusion fence.</p> <p>i) A preconstruction survey for California red-legged frog shall be conducted within the project site immediately prior to ground disturbance. If no individuals are detected, then construction-related activities may proceed provided project avoidance and minimization measures in this document are adhered to. If adults are present in the construction area, work shall be stopped until individuals are allowed to disperse on their own volition, or the species is relocated by a qualified biologist with permission to handle California red-legged frog.</p> <p>j) Disturbance to vegetation shall be kept to the minimum necessary to complete the project activities. To minimize impacts to vegetation, a qualified biologist shall work with the contractor to designate the work area and any staging areas and clearly delineate areas that shall be avoided with exclusion fencing (e.g., high-visibility orange construction fencing, silt fence, ERTEC fencing, or other similar material).</p> <p>k) Ground-disturbing construction activities (e.g., grubbing or grading) should occur during the dry season (June 1–October 15) to facilitate avoidance of California red-legged frog. Regardless of the season, no ground-disturbing activities shall occur within 24 hours following a significant rain event (greater than ¼ inch in a 24-hour period). Following a significant rain event and the 24 hour drying-out period, a qualified biologist would conduct a preconstruction survey for California red-legged frog prior to the restart of any project ground-disturbing activities.</p>	

Impacts	Mitigation Measures	Residual Impacts
	<ul style="list-style-type: none"> l) To avoid impacts to California red-legged frog and other sensitive wildlife species, a wildlife exclusion fence (e.g., silt fence, ERTEC fencing, or other similar material) shall be installed around the perimeter of the project, at the discretion of the qualified biologist. m) The wildlife exclusion fence shall be inspected by a qualified biologist or project stormwater inspector, who has received environmental awareness training from a qualified biologist, on a weekly basis to ensure that the fence is functioning as intended throughout the duration of construction activities that may impact California red-legged frog (e.g., ground disturbance, materials staging/parking required on the north side of the project site). Removal of the wildlife exclusion fence may be conducted at the discretion of a qualified biologist if ground-disturbing activities have been completed and remaining project activities would not impact California red-legged frog (i.e., only interior site buildout activities remain). 	
<p>Impact BIO-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? (No Impact)</p>	<p>No mitigation required.</p>	<p>No Impact</p>
<p>Impact BIO-3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? (Less than Significant with Mitigation)</p>	<p>MM-BIO-3: Implement the following BMPs to prevent erosion and sedimentation to Montara Creek:</p> <ul style="list-style-type: none"> a) Adhere to BMPs. Regardless of the season, construction shall adhere to SWRCB BMPs, and no ground-disturbing activities shall occur within 24 hours following a significant rain event (defined as greater than ¼ inch in a 24 hour period). b) Permanently Protect Exposed Surfaces. Before completion of the project, all exposed or disturbed surfaces shall be permanently protected from erosion with reseeding and landscaping. c) Cover and Secure Spoils. All spoils, such as dirt, excavated material, debris, and construction-related materials, generated during project activities shall be placed within the limits of the designated construction area. Spoils shall be covered or secured to prevent sediment from escaping. Once the spoil pile is no longer active, it shall be removed from the work area and disposed of lawfully at an appropriate facility. d) Stabilize Soils and Use BMPs. All exposed soils in the work area resulting from project activities shall be stabilized immediately following the completion of work to prevent erosion. Erosion and sediment control BMPs, such as silt fences, straw hay bales, gravel or rock-lined drainages, water check bars, and broadcast straw, can be used. BMPs shall be made of certified weed-free materials. Straw wattles, if used, shall be made of biodegradable fabric (e.g., burlap) and free of monofilament netting. At no time shall silt-laden runoff be allowed to enter any drainages or other sensitive areas. 	<p>Less than significant with mitigation</p>

Impacts	Mitigation Measures	Residual Impacts
	<p>e) Do Not Fuel Near Drainages. All fueling and maintenance of vehicles and other equipment and staging areas shall occur at least 100 feet from any drainages and other water features. Crew members shall ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, the construction contractor shall prepare a plan to be approved by the County before construction begins to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and the appropriate measures to take should a spill occur.</p>	
<p>BIO-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites? (Less than Significant with Mitigation)</p>	<p>MM-BIO-4 Conduct Nesting Bird Surveys. If project activities, including grass mowing and tree trimming/removal, are conducted during nesting bird season (February 15–September 15), preconstruction nest surveys shall be conducted in and near the project site (within 250 feet for large raptors and 100 feet for all other birds) by a qualified biologist within 7 days of the start of construction. If nesting birds are identified during the preconstruction survey, then the project shall be modified (i.e., a no-work exclusion buffer of appropriate size [to be determined by the qualified project biologist] shall be erected around active nests) and/or delayed as necessary to avoid impacts to the identified nests, eggs, and/or young</p>	<p>Less than significant with mitigation</p>
<p>BIO-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (including the County Heritage and Significant Tree Ordinances)?</p>	<p>MM-BIO-5: Tree Replacement and Maintenance Plan</p> <p>a) Plans affecting the trees should be reviewed by the consulting arborist with regard to tree impacts. These include, but are not limited to, site plans, improvement plans, utility and drainage plans, grading plans, landscape and irrigation plans, and demolition plans.</p> <p>b) Route underground services including utilities, sub-drains, water, or sewer around the Tree Protection Zone. For design purposes, the Tree Protection Zone trees shall be defined as the tree dripline.</p> <p>c) Any herbicides placed under paving materials must be safe for use around trees and labeled for that use.</p> <p>d) Do not lime the subsoil within 50 feet of any tree. Lime is toxic to tree roots.</p> <p>e) As trees withdraw water from the soil, expansive soils may shrink within the root area. Therefore, foundations, footings, and pavements on expansive soils near trees should be designed to withstand differential displacement.</p> <p>f) Fences are to remain until all grading and construction is completed. Where demolition must occur close to trees, such as removing curb and pavement, install trunk protection devices such as winding silt sock wattling around trunks or stacking hay bales around tree trunks.</p> <p>g) Trees to be removed shall be felled so as to fall away from Tree Protection Zone and avoid pulling and breaking of roots of trees to remain. If roots are entwined, the Consulting Arborist may require first severing the major woody root mass before extracting the trees, or grinding the stump below ground.</p>	<p>Less than significant with mitigation</p>

Impacts	Mitigation Measures	Residual Impacts
	<ul style="list-style-type: none"> h) All contractors shall conduct operations in a manner that will prevent damage to trees to be preserved. i) Any brush clearing required within the Tree Protection Zone shall be accomplished with hand operated equipment. j) All grading within the dripline of trees shall be done using the smallest equipment possible. The equipment shall operate perpendicular to the tree and operate from outside the Tree Protection Zone. Any modifications must be approved and monitored by the consulting arborist. k) If injury should occur to any tree during construction, it should be evaluated as soon as possible by the consulting arborist so that appropriate treatments can be applied. <p>Maintenance of Impacted Trees:</p> <ul style="list-style-type: none"> l) Preserved trees will experience a physical environment different from that pre-development. As a result, tree health and structural stability should be monitored. Occasional pruning, fertilization, mulch, pest management, replanting and irrigation may be required. m) Provisions for monitoring both tree health and structural stability following construction must be made a priority. Inspect trees annually and following major storms to identify conditions requiring treatment to manage risk associated with tree failure. 	
<p>BIO-6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?</p>	<p>IN INITIAL STUDY 2.4.f</p>	<p>No Impact</p>
<p>BIO-7: Would the project be located inside or within 200 feet of a marine or wildlife reserve?</p>	<p>No mitigation required.</p>	<p>No Impact</p>
<p>BIO-8: Would the project result in loss of oak woodlands or other non-timber woodlands?</p>	<p>No mitigation required.</p>	<p>Less than significant</p>
<p>C-BIO-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to biological resources?</p>	<p>No mitigation required.</p>	<p>Less than significant</p>

Cypress Point Affordable Housing Community Project Environmental Impact Report
Executive Summary

Impacts	Mitigation Measures	Residual Impacts
GEOLOGY AND SOILS		
<p>GEO-1: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <ul style="list-style-type: none"> • 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 (Less than Significant) • Strong seismic ground shaking? (Less than Significant) • Seismic-related ground failure, including liquefaction and differential settling? (Less than Significant) • Landslides? (Less than Significant) • Coastal cliff/bluff instability or erosion? (Less than Significant) 	No mitigation required.	Less than significant
GEO-2: Would the project result in substantial soil erosion or the loss of topsoil?	No mitigation required.	Less than significant
GEO-3: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	No mitigation required.	Less than significant
GEO-4: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	No mitigation required.	Less than significant
GEO-5: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	IN INITIAL STUDY 2.7.e	No Impact
GEO-6: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<p>MM-GEO-1 Accidental Discovery of Paleontological Resources</p> <p>In the event that paleontological resources are exposed during project work, regardless of the location or geologic units in which the fossils are found, work in the immediate vicinity of the find must stop until a Qualified Professional Paleontologist (Qualified Paleontologist/Project Paleontologist/Principal Paleontologist), who meets or exceeds the SVP definition, can evaluate the significance of the find. Ground-disturbing activities may continue in other areas outside an appropriate buffer, usually 50 feet. If the paleontologist determines the discovery to be significant, the fossil(s) shall be salvaged.</p>	Less than significant
C-GEO-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to geology and soils?	No mitigation required.	Less than significant

Impacts	Mitigation Measures	Residual Impacts
GREENHOUSE GAS AND CLIMATE CHANGE		
GHG-1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	MM-TR-2 and MM-TR-4b	Less than significant
GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	No mitigation required.	Less than significant
GHG-3: Result in the loss of forestland or conversion of forestland to non-forest use, such that it would release significant amounts of GHG emissions, or significantly reduce GHG sequestering?	No mitigation required.	Less than significant
GHG-4: Expose new or existing structures and/or infrastructure (e.g., leach fields) to accelerated coastal cliff/bluff erosion due to rising sea levels?	No mitigation required.	Less than significant
GHG-5: Expose people or structures to a significant risk of loss, injury or death involving sea level rise?	No mitigation required.	Less than significant
GHG-6: Place structures within an anticipated 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, or that would impede or redirect flood flows?	No mitigation required.	No Impact
GHG-7: Place within an anticipated 100-year flood hazard area structures that would impede or redirect flood flows?	No mitigation required.	No Impact
C-GHG-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to greenhouse gas emissions?	No mitigation required.	Less than significant
HAZARDS AND HAZARDOUS MATERIALS		
HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<p>MM-HAZ-1a: Preconstruction Planning and Notification Prior to the start of construction activity involving below-groundwork (e.g., slab removal or excavating), a copy of the SMP shall be provided by the applicant to all contractors for review.</p> <p>MM-HAZ-1b: Implement Site-Specific Health and Safety Worker Requirements Prior to the start of construction, a HASP shall be prepared by the General Contractor. The General Contractor and any subcontractors shall be responsible for the health and safety of their own workers, as required by Cal-OSHA, including but not limited to preparation of their own HASP and Injury and Illness Prevention Plan (IIPP). The HASP(s) shall contain provisions for limiting and monitoring chemical exposure to construction workers, chemical and non-chemical hazards, emergency procedures, and standard safety protocols.</p>	Less than significant

Impacts	Mitigation Measures	Residual Impacts
	<p>The General Contractor shall submit the HASP to San Mateo County Environmental Health Services (EHS) at least 2 weeks prior to beginning construction field work. HASPs shall be updated as the project proceeds if unforeseen conditions are identified and necessitate modifications.</p> <p>MM-HAZ-1c: Construction Best Management Practices</p> <p>The following best management practices shall be implemented during construction.</p> <p>A. Site Control: Site control procedures shall be implemented by the General Contractor to control the flow of personnel, vehicles, and materials in and out of the site while working with potentially contaminated materials. To control the spread of the contaminants of potential concern, the following controls shall be taken by the General Contractor:</p> <ol style="list-style-type: none"> a. The site perimeter shall be fenced by the General Contractor. b. Access and egress shall be controlled at selected locations. c. Signs shall be posted at each entrance by the General Contractor, instructing visitors to sign in at the project support area. <p>B. Equipment Decontamination: Decontamination procedures shall be established and implemented by the General Contractor to reduce the potential for construction equipment and vehicles to transfer potentially impacted soil onto public roadways or other off-site areas. Gravel shall be placed at all site access points by the General Contractor and excess soil shall be removed from construction equipment using dry methods (e.g., brushing or scraping) prior to moving equipment off-site.</p> <p>C. Personal Protective Equipment: PPE shall be used to isolate workers from the contaminant of potential concern and physical hazards. The minimum level of protection for workers coming into direct contact with potentially contaminated materials is OSHA Level D PPE, listed below.</p> <p>The level of PPE shall be evaluated by the General Contractor on a continuing basis and modified, based upon conditions encountered at the site. The minimum PPE to be utilized during construction activities shall include the following:</p> <ul style="list-style-type: none"> • Coveralls or similar construction work clothing; • Reflective safety vests; • Steel-toed boots; • Hard hat; • Work gloves, as necessary; • Safety glasses, as necessary; and • Hearing protection, as necessary. 	

Impacts	Mitigation Measures	Residual Impacts
	<p>MM-HAZ-1d: Dust Control Measures</p> <p>All demolition and construction activities that have the potential to create dust shall comply with specified dust control measures. The following actions are required by the General Contractor to adequately address dust control:</p> <ul style="list-style-type: none"> • Construction areas shall be watered down at a sufficient frequency to eliminate visible dust. Additional watering may be required whenever the wind speed exceeds 15 miles per hour. Watering shall be performed in a manner such that runoff will not be produced at any time. • At the end of each workday, all streets, sidewalks, paths, and intersections where work has occurred shall be swept or vacuumed to remove visible soil(s). • All inactive soil piles expected to remain in-place for more than 7 days shall be covered with plastic sheeting or an equivalent tarp and properly secured to avoid wind damage. • Signage shall be placed along Lincoln, Sierra, Carlos, and Stetson Streets to inform surrounding community members of the hotline phone number(s) to call and report visible dust problems. • If proposed dust suppression efforts are unsuccessful, other measures shall be implemented to help control dust, such as wind breaks and/or dust curtains along street frontages, pending final resolution of necessary dust suppression efforts. • Materials contained in all loading trucks or metal bins carrying excavated materials shall be maintained below the sides and back of the truck or metal bin and shall be properly covered to avoid dust generation and drying of soils during transport. Excavated materials may be moistened prior to transport. • Drop heights shall be minimized while loading and unloading soil. • Truck tires shall be brushed prior to leaving the site, and truck loading areas will be routinely swept and cleaned to avoid creating visible dust. Soil handling activities shall be halted when the wind speed exceeds 25 miles per hour and visible dust is being created that cannot be mitigated by soil moistening. <p>MM-HAZ-1e: Retain a Hazardous Materials Specialist</p> <ol style="list-style-type: none"> 1. Prior to the start of construction activities, a Hazardous Materials Specialist shall be retained for consultation on the following: <ul style="list-style-type: none"> • Soil sampling analysis shall occur prior to any construction that would result in excavation within impacted soil areas near the community room and building 12, or residential buildings 15 and 16. Inspection may use a portable, x-ray fluorescence analyzer to field screen work area(s) during construction. Work area soils also may be monitored based upon visual observations. 	

Impacts	Mitigation Measures	Residual Impacts
	<ul style="list-style-type: none"> • Soil sampling analysis shall occur if previously unidentified features of concern are encountered. These include USTs, sumps, clarifiers, former water supply wells or similar features of potential environmental concern. <p>If any of the above-listed material is found to contain lead, such materials shall be disposed of in accordance with applicable federal, state, and local regulations regarding worker safety and the safe removal and disposal of lead-impacted soil.</p> <p>2. Excavation Dewatering</p> <p>During construction, if groundwater is encountered or accumulates in any excavation(s) due to rainwater, the Hazardous Materials Specialist shall be notified, and such water shall be handled in accordance with the following protocols:</p> <ul style="list-style-type: none"> • For relatively small volumes of water, a temporary storage tank (frac tank) shall be utilized to hold such groundwater on a short-term basis while testing and disposal is arranged. • If conditions require installation of a dewatering system or larger volume of groundwater requires handling, proper RWQCB permits shall be obtained. Required permit conditions shall be followed for discharge into the nearby existing sanitary sewer or stormwater system. <p>3. Soil Monitoring and Screening</p> <p>During construction, the Hazardous Materials Specialist shall be notified by the General Contractor of the discovery of the below conditions and shall be on-site during the duration of construction activities to perform screening and possible sample collection:</p> <ul style="list-style-type: none"> • Discovery and removal of previously unidentified features of concern, such as USTs, sumps, clarifiers, former water supply wells or similar features of potential environmental concern. • Areas of suspected contaminated soils as deemed appropriate by the Hazardous Materials Specialist or as reported by the General Contractor. <p>The General Contractor is responsible for notification to the applicant of suspected impacted soils or possible conditions of environmental concern. If a UST or other features are discovered, work shall be suspended in its immediate vicinity, and the applicant and Hazardous Materials Specialist will be notified. EHS will be notified of the proposed response actions. Should a UST be encountered, it shall be addressed under permit with the County.</p>	

Impacts	Mitigation Measures	Residual Impacts
	<p>4. Contaminated Soils Excavation Practices</p> <p>During construction activities if soil is encountered that is suspected of being contaminated, earthwork in these suspect area(s) shall be stopped and worker access to the suspect area(s) shall be restricted. Areas shall be cordoned off, followed by notifying the Hazardous Materials Specialist. Soils suspected as being contaminated shall be evaluated through screening and/or analytical testing performed by a qualified professional tant so that appropriate handling and disposal alternatives can be determined. Site development activities may result in a net export of soil. Such soil shall be properly characterized by a Hazardous Materials Specialist in accordance with applicable regulations prior to transportation from the site.</p> <p>If on-site reuse of potentially contaminated soil is desired, soil samples shall be collected from such soil by the Hazardous Materials Specialist and analyzed by the Hazardous Materials Specialist for the contaminant of potential concern. If the contaminant is detected, whether above or below regulatory agency screening levels, further investigation of such soils may be performed by the Hazardous Materials Specialist. For soils considered for reuse, if the contaminant(s) is detected below the applicable ESL, reuse of the soil may be deemed appropriate, at the discretion of the applicant. If the contaminant is detected above the applicable ESL and soils are being considered for reuse on-site, the results and conditions shall be communicated to EHS for concurrence.</p> <p>If soils are proposed to be hauled off-site, any impacted soils shall be profiled for proper disposal at landfill facilities under appropriate waste manifests. Prior to off-site disposal, additional soil samples may be collected and analyzed in accordance with the requirements of disposal facility(s). Soil suspected of being contaminated during excavation, shall be stockpiled or otherwise segregated from "clean" soil. Such soil shall be stockpiled on-site on top of and covered by an "impermeable" liner (e.g., 6-mil plastic sheeting) or other appropriate materials to reduce infiltration by rainwater and contamination of underlying soil while its disposition is being determined. Any such stockpiles shall be checked daily by the General Contractor to verify that they are adequately covered.</p> <p>5. Excavation of Surplus Soil</p> <p>During construction, if excavation of surplus soil is proposed, surplus soils generated during grading activities shall be profiled by the Hazardous Materials Specialist for acceptance at appropriate facilities. Criteria for acceptance (e.g., concentrations of specific contaminants, odors, additional analytical testing, etc.) shall be determined by the acceptance facility(s) as part of the acceptance process.</p>	

Impacts	Mitigation Measures	Residual Impacts
	<p>6. Imported Fill Best Practices</p> <p>During construction, an evaluation of import fill materials shall be conducted by the Hazardous Materials Specialist and General Contractor to ensure such fill meets the geotechnical and environmental requirements for the proposed project. All selected sources of import fill shall have adequate documentation or certification to verify that the fill source is appropriate for the site. Documentation shall include detailed information on previous land use of the fill source, any Phase I ESAs performed and findings, and the results of any analytical testing performed.</p> <p>If no documentation is available or the documentation is inadequate or if no analytical testing has been performed, samples of the potential fill material shall be collected and analyzed by the Hazardous Materials Specialist prior to delivery of such soil to the site. The Hazardous Materials Specialist shall provide guidance to the General Contractor regarding acceptability of imported fill. No fill material shall be accepted if contaminant levels exceed current residential environmental screening goals and/or regional background concentrations.</p> <p>7. Notifications</p> <p>During construction, notifications of the discovery of the contaminants in field screening, observations, or analytical results or other conditions of potential environmental concern shall be immediately made to the applicant, General Contractor, and Hazardous Materials Specialist. If analytical testing shows that the contaminant is above its applicable screening level, the applicant and the General Contractor shall be notified. The discovery of any subsurface features shall be reported to the Hazardous Materials Specialist, followed by notifying the County Environmental Health Services. If such discovery or conditions require notification to another General Contractor or subcontractors, then such notification shall be made by the General Contractor.</p> <p>8. Documentation</p> <p>Upon completion of excavation and earthwork performed in accordance with the SMP, the Hazardous Materials Specialist shall prepare a report that includes a site map showing areas of excavation and import fill, sample locations, and tables summarizing data. The report shall include appendices with copies of permits, including any dewatering permits, manifests, or bills of lading for removed soil and/or groundwater, and laboratory reports for soil and water profiling not previously submitted. The certified final project report will be prepared for EHS and MidPen Housing Corporation.</p>	
<p>HAZ-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?</p>	<p>MM-HAZ-1a through MM-HAZ-1e</p>	<p>Less than significant</p>
<p>HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?</p>	<p>In initial Study 2.9.c</p>	<p>Less than significant</p>

Cypress Point Affordable Housing Community Project Environmental Impact Report
Executive Summary

Impacts	Mitigation Measures	Residual Impacts
HAZ-4: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No mitigation required.	No Impact
HAZ-5: Would 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?	In initial Study 2.9.e	Less than significant
HAZ-6: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No mitigation required.	Less than significant
HAZ-7: Would the project expose people or structures, directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No mitigation required.	Less than significant
HAZ-9: Place within an existing 100-year flood hazard area structures that would impede or redirect flood flows?	No mitigation required.	No Impact
HAZ-10: Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	No mitigation required.	Less than significant
HAZ-11: Inundation by seiche, tsunami, or mudflow?	No mitigation required.	Less than significant
C-HAZ-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to hazards and hazardous materials?	No mitigation required.	Less than significant
HYDROLOGY AND WATER QUALITY		
HYD-1: Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	Less than significant	Less than significant
HYD-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	No mitigation required.	Less than significant

Cypress Point Affordable Housing Community Project Environmental Impact Report
Executive Summary

Impacts	Mitigation Measures	Residual Impacts
<p>HYD-3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:</p> <ul style="list-style-type: none"> • result in substantial erosion or siltation on- or off-site; • substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; • create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; • or impede or redirect flood flows? 	No mitigation required.	Less than significant
<p>HYD-4: Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?</p>	No mitigation required.	Less than significant
<p>HYD-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?</p>	No mitigation required.	Less than significant
<p>HYD-6: Significantly degrade surface or groundwater water quality?</p>	No mitigation required.	Less than significant
<p>HYD-7: Result in increased impervious surfaces and associated increased runoff?</p>	No mitigation required.	Less than significant
<p>C-HYD-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to hydrology and water quality?</p>	No mitigation required.	Less than significant
LAND USE AND PLANNING		
<p>LUP-1: Would the project physically divide an established community?</p>	No mitigation required.	No Impact
<p>LUP-2: Would the project 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?</p>	No mitigation required.	Less than significant
<p>LUP-3: Would the project serve to encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)?</p>	No mitigation required.	Less than significant
<p>C-LUP-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to land use and planning?</p>	No mitigation required.	Less than significant

Impacts	Mitigation Measures	Residual Impacts
NOISE		
<p>N-1: Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?</p>	<p>MM-N-1: Implement Construction Noise Best Management Practices</p> <p>Construction activities shall be conducted in accordance with the provisions of Section 4.88.360 of the San Mateo County Code of Ordinances, which limits construction work to the hours between 7:00 a.m. and 6:00 p.m. on weekdays and 9:00 a.m. and 5:00 p.m. on Saturdays. No construction shall occur at any time on Sundays, Thanksgiving, and Christmas.</p> <p>The noise impacts of construction equipment may be minimized through modification of the equipment, the placement of equipment on the site, and by imposing constraints on equipment operations. Construction equipment should be well-maintained and used judiciously to be as quiet as possible. The project proponent shall include the following BMPs in all contracts related to project construction activities near sensitive land uses:</p> <ul style="list-style-type: none"> • Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment. • Unnecessary idling of internal combustion engines should be strictly prohibited. • Locate stationary noise-generating equipment, such as air compressors or portable power generators, as far as possible from sensitive receptors as feasible. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used to reduce noise levels at the adjacent sensitive receptors. Any enclosure openings or venting shall face away from sensitive receptors. • Use “quiet” air compressors and other stationary noise sources where technology exists. • Establish construction staging areas at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction. • Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors. • Control noise from construction workers’ radios to a point where they are not audible at existing residences bordering the project site. • Notify all adjacent business, residences, and other noise-sensitive land uses of the construction schedule, in writing, and provide a written schedule of “noisy” construction activities to the adjacent land uses and nearby residences. 	<p>Less than significant</p>

Impacts	Mitigation Measures	Residual Impacts
N-2: Would the project generate excessive groundborne vibration or groundborne noise levels?	<ul style="list-style-type: none"> Designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule. 	Less than significant
N-3: Would the project, if 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?	Initial Study 2.13.c	Less than significant
C-N-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to noise?	No mitigation required.	Less than significant
TRANSPORTATION		
TR-1: Implementation of the proposed project could conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	No mitigation required.	Less than significant
TR-2: The proposed project would exceed the County VMT thresholds and therefore would not be consistent with State CEQA Guidelines Section 15064.3(b).	<p>MM-TR-2: Implement C/CAG TDM Checklist Measure M4</p> <p>The project sponsor shall incorporate C/CAG TDM Checklist Measure M4 - Actively Participate in Commute.org or TMA Equivalent: Certified participation in Commute.org/or TMA from the "Additional Recommended" list in the "Residential (Multi-Family) Land Use: Small Project" checklist. Consistent with C/CAG TDM Checklist Measure M3, the project sponsor shall ensure there is designated staff to communicate the availability of these resources and rewards to residents to encourage bicycling for commuting purposes and promote participation in Commute.org or Transportation Management Association Equivalent. C/CAG TDM Checklist Measure M4 shall be implemented as part of the new tenant move in procedures consistent with required C/CAG TDM Checklist Measure M2, and on a monthly basis with rent payment notice. In addition, to ensure that any changes to transportation benefits are communicated to tenants in a timely manner, the project sponsor (or designated TDM coordinator through Commute.org) shall use a private tenant noticing system or equivalent as needed.</p>	Significant and unavoidable with mitigation

Impacts	Mitigation Measures	Residual Impacts
<p>TR-3: Project-related traffic contributions to vehicle movements at the Carlos Street and SR-1 intersection would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).</p>	<p>MM-TR-3: Temporary Carlos Street Closure at State Route-1</p> <p>In order to reduce the project-related traffic contributions to an existing traffic safety hazard at State Route-1 and Carlos Street, the project sponsor, in coordination with the County Department of Public Works and the Coastside Fire Protection District, will close the northern 500 feet of Carlos Street between State Route-1 and the proposed Carlos Street driveway to all vehicular traffic except emergency vehicles until the Moss Beach/SR-1 Project is constructed and in operation (expected 2030).</p> <p>The closure shall be implemented with the placement of infrastructure such as knock-over bollards at the north end of Carlos Street and at its intersection with the proposed driveway (i.e., at each end of the 500-foot-long road segment) along with pavement markings and sign poles indicating “Emergency Vehicle Access Only”. At the Carlos Street driveway, the closure will be noticed with the placement of a sign pole and pavement markings at the Carlos Street driveway exit indicating “Left-Turn Only”. All road closure infrastructure at the Carlos Street/SR-1 intersection and Carlos Street and proposed project driveway will be temporary and will require a Caltrans encroachment permit and County approval to ensure that emergency vehicle access will not be inhibited.</p> <p>Furthermore, all temporary improvements shall be consistent with the Moss Beach/SR-1 Project. Implementation authority for the Moss Beach/SR-1 Project rests jointly with the County and Caltrans; therefore, the recommended closure is a temporary solution until the County implements the Moss Beach/SR-1 Project. Ultimate improvements are expected to be consistent with Caltrans Highway Design Manual standards and provide adequate sight distance.</p>	<p>Less than significant</p>

Impacts	Mitigation Measures	Residual Impacts
<p>TR-4: Project-related pedestrians and bicyclists would be exposed to roadway-related hazards at the State Route 1 and Carlos Street intersection due to a geometric design feature (e.g., sharp curves or dangerous intersections).</p>	<p>MM-TR-4a: Implement MM-TR-3 (Temporary Carlos Street Closure at State Route-1).</p>	<p>Significant and unavoidable with mitigation</p>
	<p>MM-TR-4b: Augment C/CAG TDM Checklist Measure M3</p> <p>In addition to the proposed project characteristics (i.e., affordable housing and Local Preference agreement; C/CAG TDM Checklist measures incorporated as part of the project; and the additional pedestrian and bicycle network and transit stop improvements identified under MM-TR-4c, below), the project sponsor shall augment standard educational materials associated with the C/CAG TDM Checklist M3 to support safe and sustainable active transportation.</p> <p>Consistent with C/CAG TDM Checklist Measure M3, the project sponsor shall ensure there is designated staff to develop educational materials that includes pedestrian, bicycle, and vehicle safety-related information for review and approval by County. Educational materials shall include, but not be limited to, a bus stop location map highlighting stops that do not require travel along or across SR-1, pedestrian and bicycle route network map highlighting potential hazards (e.g., no marked crosswalk, discontinuous sidewalk, narrow roadway), and other site-specific safety-related information.</p>	<p>Significant and unavoidable with mitigation</p>
	<p>MM-TR-4c: Additional Transportation Demand Management Measures</p> <p>In addition to the C/CAG Transportation Demand Management measures included as part of the proposed project to reduce project-related vehicle trips and promote carpooling and non-auto modes of travel to improve mode share, the project sponsor in coordination with the County shall implement, or facilitate the implementation of, the additional pedestrian-, bicycle-, and transit-related TDM measures detailed below. The additional TDM measures focus on the filling of gaps in the existing pedestrian and bicycle network in the vicinity of the project site and within Moss Beach to facilitate commute, household, and recreation trips by foot, bicycle, or transit; and commits the project sponsor to a fair share contribution to transit stop improvements at selected SamTrans stops. All proposed improvements would be designed to meet accessibility requirements and the needs of all users consistent with County and Caltrans' Complete Streets policies.</p> <p>Off-Site Pedestrian Network and Access to Transit Improvements</p> <ul style="list-style-type: none"> • Stetson Street/Kelmore Street <ul style="list-style-type: none"> ○ Add a curb ramp with truncated domes on the northeast corner if feasible with fire station configuration and drainage. ○ Add a high-visibility crosswalk for pedestrians to cross Kelmore Street and connect to the existing sidewalk on the east side of Stetson Street. 	<p>Significant and unavoidable with mitigation</p>

Impacts	Mitigation Measures	Residual Impacts
	<ul style="list-style-type: none"> • Stetson Street/California Avenue <ul style="list-style-type: none"> ○ Add a curb ramp and high-visibility crosswalk with advanced stop bar to cross Stetson Street (from northeast corner to northwest corner toward Etheldore Street). ○ California Avenue/Etheldore Street ○ Add a curb ramp and high-visibility crosswalk with advanced stop bar for pedestrians to cross California Avenue and access the northbound bus stop at the southeast corner of intersection. ○ Add a curb ramp and high-visibility crosswalk with advanced stop bar for pedestrians to cross Etheldore Street and access the southbound bus stop at the northwest corner of intersection. ○ California Avenue, south of Etheldore Street ○ Add approximately 80 feet of new sidewalk on north side of California Avenue to connect to the existing sidewalk and downtown Moss Beach. Off-Site Bicycle Network Improvements <ul style="list-style-type: none"> ○ Sierra Street ○ Provide sharrows on Sierra Street between project site and California Avenue to connect to the planned Class III Bikeway on California Avenue identified in the Unincorporated San Mateo County Active Transportation Plan. ○ California Avenue ○ Provide sharrows on California Avenue between Sierra and Carlos streets to assist with implementation of the planned Class III Bikeway along California Avenue between Tierra Alta Street and North Lake Street, as identified in the Unincorporated San Mateo County Active Transportation Plan. Off-Site Transit Stop Improvements <ul style="list-style-type: none"> • Evaluate the need for the project sponsor to contribute toward accessible bus stops at the southeast and northwest corners of California Avenue/Etheldore Street including provision of bus benches at each stop if feasible based on topography and other site constraints. 	
<p>TR-5: Project-related pedestrians would be exposed to roadway hazards due to a discontinuous sidewalk network.</p>	<p>MM-TR-5: Implement MM-TR-4b and MM-TR-4c</p>	<p>Less than significant</p>
<p>TR-6: Buildout of the project would not result in inadequate emergency access.</p>	<p>No mitigation required.</p>	<p>Less than significant</p>
<p>C-TR-1: The proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable transportation impact related to a conflict with a program, plan, ordinance, or policy addressing the circulation system.</p>	<p>No mitigation required.</p>	<p>Less than significant</p>

Cypress Point Affordable Housing Community Project Environmental Impact Report
Executive Summary

Impacts	Mitigation Measures	Residual Impacts
C-TR-2: The proposed project, in combination with other past, present, and reasonably foreseeable future projects, would result in a cumulatively considerable transportation impact related to VMT and consistency with State CEQA Guidelines Section 15064.3(b).	C-TR-2: Implement MM-TR-2, MM-TR-3, MM-TR-4b and MM-TR-4c	Significant and Unavoidable with Mitigation
C-TR-3: The proposed project, in combination with other past, present, and reasonably foreseeable future projects, would result in a cumulatively considerable transportation impact related to hazards.	C-TR-3: Implement MM-TR-2, MM-TR-3, MM-TR-4b and MM-TR-4c	Significant and Unavoidable with Mitigation
C-TR-4: The proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable transportation impact related to emergency access.	No mitigation required.	Less than significant
UTILITES AND SERVICE SYSTEMS		
UT-1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	No mitigation required.	Less than significant
UT-2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	No mitigation required.	Less than significant
UT-3: Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	No mitigation required.	Less than significant
UT-4: Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	No mitigation required.	Less than significant
UT-5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No mitigation required.	Less than significant
C-UT-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to utilities and service systems?	No mitigation required.	Less than significant
WILDFIRE		
WF-1: Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?	No mitigation required.	Less than significant
WF-2: Would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	No mitigation required.	Less than significant

Impacts	Mitigation Measures	Residual Impacts
WF-3: Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	No mitigation required.	Less than significant
WF-4: Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	No mitigation required.	Less than significant
Impact C-WF-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to wildfire?	No mitigation required.	Less than significant

Table ES-2. Summary of Initial Study Impacts and Mitigation Measures

Impacts	Mitigation Measures	Residual Impacts
AGRICULTURE		
AG-2 a) For lands outside of the Coastal Zone, would the project 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 mitigation required.	No Impact
a) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?	No mitigation required.	No Impact
b) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	No mitigation required.	No Impact
c) Would the project result in the loss of forest land or conversion of forest land to non-forest use?	No mitigation required.	No Impact
d) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	No mitigation required.	No Impact
e) For lands within the Coastal Zone, would the project convert or divide lands identified as Class I or Class II Agriculture Soils and Class III Soils rated good or very good for artichokes or Brussels sprouts?	No mitigation required.	No Impact

Impacts	Mitigation Measures	Residual Impacts
f) Would the project result in damage to soil capability or loss of agricultural land?	No mitigation required.	No Impact
BIOLOGICAL RESOURCES		
a) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No mitigation required.	Less than significant
CULTURAL RESOURCES		
a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	No mitigation required.	Less than significant

Impacts	Mitigation Measures	Residual Impacts
<p>b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?</p>	<p>MM-CR-1: Additional Site Excavation. An archaeological salvage program shall take place prior to the earthmoving activities and shall consist of four hand-excavated 1 × 1-m mitigation units. Placement of the units shall be based on available archival background data, field observations, and proposed project plans. Hand excavation shall be conducted using standard archaeological techniques with trowels, picks, and shovels at arbitrary levels and dry screened through ¼-inch mesh. All identified artifactual material shall be collected from each level. Collected material shall be placed in level bags, and each level shall be recorded using level forms. Artifacts, soil type, color, stratigraphy, and features present shall be recorded. All artifactual material from this process shall then be placed within its appropriate level bag during the field process.</p> <p>MM-CR-2: Archaeological Monitoring. Archaeological monitoring shall be conducted during all earthmoving activities involved with the project in accordance with the schedule coordinated between the general contractor and project archaeologist. This shall consist of full-time monitoring during all earthmoving activities within 50 feet of CA-SMA-431. Archaeological spot-check monitoring, consisting of periodic monitoring of the project site during ground-disturbing activities, including during demolition of the existing concrete foundations, shall take place for the remainder of the project. The timing and frequency of these spot checks shall be determined throughout the course of earthmoving activities for the proposed project based upon the construction schedule and the nature of any cultural materials encountered. Per the schedule, the archaeologist shall inspect the site and shall subsequently provide an archaeological monitoring report. This report shall document all cultural materials encountered and be submitted to project representatives within 40 working days of the completion of earthmoving activities for the project.</p> <p>Considering that cultural resources frequently exist below the surface, their location is often not visible. Field archaeologists therefore monitor earthmoving activities to observe whether artifactual remains, soil changes indicating cultural use, and/or other indicators of human activity are present within a project site. Monitoring consists of a qualified archaeological field technician observing the ground-disturbing activities in native soil.</p> <p>MM-CR-3: Unanticipated Findings during Construction. If any individual artifacts (prehistoric or historic), features, potential midden soils, or other indicators of cultural use are noted by the archaeological monitor during the earthmoving activities, work within 50 feet of the find shall be stopped until appropriate measures are formulated by the project archaeologist and accepted by the County and the project representative. If the project archaeologist is not present on the site, the County, owner, and project archaeologist shall be notified by telephone, and the project archaeologist shall examine the materials encountered within 24 hours. Any archaeological materials found at the site shall be collected and stored for further analysis by a qualified archaeologist and may require consultation with appropriate Tribal representatives, as dictated by the California Native American Heritage Commission (NAHC) and County.</p>	<p>Less than significant</p>

Impacts	Mitigation Measures	Residual Impacts
c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?	<p>MM-CR-4: Procedures for Discovery and Treatment of Human Remains. If human remains are found during excavation or construction, work shall be halted at a minimum of 50 feet from the find, the area shall be staked off, and the owner and project archaeologist shall be notified. The owner shall contact the County Coroner, and no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains shall be performed until the coroner determines that no investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the NAHC within 24 hours of this determination. The NAHC shall identify the person or persons it believes to be the most likely descendent (MLD) of the deceased. The MLD may then make recommendations to the owner and execute an agreement for the means of treating or disposing of, with appropriate dignity, the human remains and associated grave goods, as provided in Public Resources Code Section 5097.98.</p> <p>If required, reinterment of human remains shall be performed according to California law for Native American burials (Chapter 1492, Statutes of 1982). The intent of the California state law is to protect Native American burials, isolated and disarticulated human remains, and associated cultural materials found during the course of an undertaking. It also serves to insure proper analysis prior to their final disposition. The location and procedures of this undertaking shall be recorded by the project archaeologist. Reinterment shall take place with all due speed upon completion of all necessary analysis. This information shall be included in the final report prepared by the project archaeologist, or if necessary, as an addendum to the report.</p> <p>The owner shall rebury the Native American human remains and associated grave goods with the appropriate dignity on the property in a location not subject to further disturbance if:</p> <ol style="list-style-type: none"> 1. The NAHC is unable to identify a MLD or the MLD failed to make a recommendation within 24 hours after being notified by the commission. 2. The descendent identified by the NAHC fails to make a recommendation for burial and mediation by the NAHC fails to provide measures acceptable to the owner. <p>Any associated grave goods and soil samples from the burial site shall be analyzed per the agreement between the owner and the MLD. Dependent upon the nature of this agreement, diagnostic artifacts such as projectile points, shell beads, and ground stone artifacts may be studied and illustrated in the final report to be prepared by the project archaeologist. Radiocarbon dating and obsidian hydration and sourcing may be undertaken in order to provide a chronology for newly identified features.</p>	Less than significant

ENERGY		
a) Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	No mitigation required.	Less than significant

Cypress Point Affordable Housing Community Project Environmental Impact Report
Executive Summary

Impacts	Mitigation Measures	Residual Impacts
b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No mitigation required.	Less than significant
GEOLOGY AND SOILS		
e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	No mitigation required.	Less than significant
HAZARDS AND HAZARDOUS MATERIALS		
c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No mitigation required.	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	No mitigation required.	Less than significant
MINERAL RESOURCES		
a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No mitigation required.	No Impact
b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	No mitigation required.	No Impact
NOISE		
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 mitigation required.	No Impact
POPULATION AND HOUSING		
a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	No mitigation required.	Less than significant
b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No mitigation required.	No Impact

Impacts	Mitigation Measures	Residual Impacts
PUBLIC SERVICES		
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	No mitigation required.	Less than significant
RECREATION		
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	No mitigation required.	Less than significant
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 mitigation required.	Less than significant
TRIBAL CULTURAL RESOURCES		
a) Would the project cause a substantial adverse change in the significance of a Tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: a-i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? a-ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	MM-CR-1 through MM-CR-4	Less than significant

6. ALTERNATIVES

As required by CEQA, this EIR examines alternatives to the proposed project. Studied alternatives include the following four alternatives. Based on the alternatives analysis, Alternative 4 was determined to be the Environmentally Superior Alternative.

- Alternative 1: No Project
- Alternative 2: Reduced Residential Units
- Alternative 3: South Moss Beach Site
- Alternative 4: El Granada Site

Alternative 1: No Project. In the No Project Alternative, implementation of the project would not occur, and any future buildout of the project site would need to be consistent with the allowable uses and density under the existing Planned Unit Development zoning. This alternative would not meet any of the Project objectives, and the project site would remain undeveloped. Current safety- and transportation-related constraints at the project site and on the immediate road network would remain unchanged. Under the existing General Plan zoning of Medium-High Density Residential, the project site could ultimately accommodate the development of up to 191 residential units (8.8–17.4 units per acre); any project would be subject to a similar environmental review as the proposed project.

Alternative 2: Reduced Residential Units. The Reduced Residential Units Alternative would achieve some of the Project objectives. This alternative would only create 30 units of affordable housing, and a manager’s unit, which would only partially meet Objectives 1 through 4, and would not meet County Regional Housing Needs Allocation goals. This alternative would not avoid the significant and unavoidable vehicle miles traveled (VMT) impact because of location and would not avoid the pedestrian safety impact because of existing conditions near the site. This alternative would partially meet County, State, or Applicant’s goals.

Alternative 3: South Moss Beach Site. The South Moss Beach site is designated for affordable housing in the San Mateo County Midcoast Local Coastal Program (LCP). This alternative is zoned R-3-A High Density Affordable Housing and Coastal Zone (R-3-A/S-5/ DR/CZ). Approximately half of the South Moss Beach site has a zoning district associated with the Half Moon Bay Airport Safety Zone overlay zoning district, which limits development to one unit per 2 acres. With this overlay, three units could be constructed on this half of the site. The remaining half of the South Moss Beach site outside of the airport safety zone overlay zoning district could be developed at the same density as the proposed project, which would accommodate approximately 63,374 square feet of residential housing configured within 71 residential units. The portion of the site in the airport district could remain as open space to meet project objectives. However, there is a notable slope that could possibly exceed 30 percent on the portion of the site that is not covered by the airport safety zone overlay zoning district and which would necessitate excessive grading near a wetland area. MidPen does not own the site, and the individual does not appear receptive to selling the site.

Alternative 4: El Granada Site. The El Granada site is designated for affordable housing in the LCP. The parcel is owned by the Cabrillo Unified School District. This alternative is zoned R-3-A/S-5/DR/CZ. Approximately 71 housing units could be constructed on this property if the entire parcel were developed. Although the project site has environmental constraints including steep slopes, Alternative 4 meets most of the project objectives and would lessen the significant transportation impacts related to pedestrian safety.

Environmentally Superior Alternative: Alternative 4: El Granada Site would reduce the magnitude of most environmental impacts because it would result in the least land developed while meeting the proposed 71 units developed. This alternative would be the Environmentally Superior Alternative.

However, the El Granada Site does not meet Objective 6, which states to provide open space on-site as an amenity to residents. MidPen does not own the site, and Cabrillo Unified School District does not appear receptive to selling the site. While the project site has environmental constraints, Alternative 4 meets most of the project objectives and would lessen the significant transportation impact related to pedestrian safety.

7. AREAS OF KNOWN CONTROVERSY

The EIR scoping process identified any areas of known controversy for the proposed project. Responses to the Notice of Preparation of a Draft EIR and input received at the EIR scoping meeting held by the County are summarized in Chapter 1, Introduction, and below.

A Notice of Preparation (NOP) was distributed on December 9, 2022, which began a 30-day public review period. The County accepted comments until January 9, 2023. The NOP was sent to the California State Clearinghouse, the County Clerk, adjacent Cities, potential responsible agencies, and other interested parties. Responsible agencies are those public agencies, in addition to the County, that may have a role in approving or carrying out the project. An NOP scoping meeting was held on Wednesday, December 14, 2022, at 9:00 a.m. via video conference. Oral and written comments were received at the meeting.

Table ES-3. Summary of Scoping Comments

EIR or Initial Study Section	Main Issues Raised
EIR Chapter 2 Project Description	<ul style="list-style-type: none"> • Conflict of interest with MidPen paying for CEQA study. • Coastal Development Permit and EIR approval timeline. • Provision of garbage cans and refuse receptacles.
EIR Section 3.3 Biological Resources	<ul style="list-style-type: none"> • Potential presence of California red-legged frog on-site.
EIR Section 3.4 Geology and Soils	<ul style="list-style-type: none"> • Clarifications of grading, construction fill, stormwater impacts, and detailed plans for on-site open space. • Details of several slope failures and soil stability in project site. • Liquefaction zone at 16th Street. • Geotechnical investigation.
EIR Section 3.6 Hazards and Hazardous Materials	<ul style="list-style-type: none"> • Potential presence of asbestos and other contaminants. • Toxic hazard study. • Coordination with Regional Water Quality Control Board and Department of Toxic Substances Control.
EIR Section 3.7 Hydrology and Water Quality	<ul style="list-style-type: none"> • Deficient water supply. • Water company payment for new connections • Sewage, water infrastructure, and runoff. • Consultation with Regional Water Quality Control Board. • Bioretention basin locations. • Sea level rise adaptation and flood protection measures. • Increase of hardscape and flooding, drainage, and erosion.

EIR or Initial Study Section	Main Issues Raised
EIR Section 3.8 Land Use and Planning	<ul style="list-style-type: none"> • Scale is too large for neighborhood.
EIR Section 3.10 Transportation	<ul style="list-style-type: none"> • Safety of intersections and driveways along Carlos, California, Stetson, and Sierra Streets. • Sidewalk and accessibility concerns. • Hazardous design of Highway 1 in project site. • Limited roadway infrastructure to serve emergency evacuation, public transit, traffic hazards. • Upgrades to roadway infrastructure to accommodate new residents, workers, and pedestrians/visitors in the project site. • Emergency evacuation challenges, increased traffic in the area. • Increase of vehicle miles traveled. • Parking concerns, existing on-street parking on Carlos Street. • Timing of traffic mitigations. • Clear explanation of transportation impacts.
EIR Section 3.11 Utilities and Service Systems	<ul style="list-style-type: none"> • Infrastructure adequacy to support the project. • Water infrastructure and payment of connections. • Pacific Gas and Electric Company easement requirement to call before excavation occurs. • Preservation of access to Montara Water and Sanitary District tanks during construction.
EIR Chapter 4 Alternatives Analysis	<ul style="list-style-type: none"> • Scale is too large for neighborhood. • Lessened units or project downsizing as an alternative.
Initial Study Section 2.18 Tribal Cultural Resources	<ul style="list-style-type: none"> • Assembly Bill 52, Senate Bill 18, and Native American Heritage Commission recommendations for cultural resources research, surveys, and reporting.

Comments expressing support or opposition for the proposed project will be considered independent of the environmental review process by County decision-makers, as part of their decision to approve, modify, or disapprove the proposed project.

CHAPTER 1. INTRODUCTION

This draft environmental impact report (EIR) evaluates the potential environmental effects of the Cypress Point Affordable Housing Community Project (proposed project) with the intention to provide the public, relevant public agencies, and stakeholders with information about the proposed project and its potential environmental effects. For the purposes of compliance with the California Environmental Quality Act (CEQA), this document evaluates the project under CEQA (Public Resources Code [PRC] Section 21000 et seq.) and the CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.).

1.1 PROJECT BACKGROUND

In 1980, the California Coastal Commission (CCC) certified San Mateo County's (County's) Local Coastal Program (LCP). The site of this proposed project was designated as "Affordable Housing" by both the County and the CCC at that time.

In 1986, the County approved, and the CCC certified, a rezoning of the project site to Planned Unit Development No. 124/Coast Development District (PUD-124/CD) to enable the construction of a mixed-market rate/affordable housing development (Farallone Vista) consisting of 148 dwelling units. Under the 1986 amendment, the project site had a land use designation of Medium-High Density Residential. The Medium-High Density Residential designation allowed for development at densities of between 8.8 to 17.4 housing units per acre.¹ This project was never developed.

In July 2018, the County received an application from MidPen Housing Corporation (MidPen) for the proposed Cypress Point Affordable Housing Community Project. This application proposed amending the LCP and rezoning the project site to allow the proposed project. The proposed rezoning reduced the maximum development density on the site and restricted all dwelling units for affordable housing. The project consists of the proposed development of 70 affordable housing units and one manager's unit on an 11.02-acre parcel (project site) in the unincorporated community of Moss Beach.

Following public hearings at the County Planning Commission and Board of Supervisors in 2020, the CCC certified the LCP land use designation amendment from Medium-High Density Residential to Medium Density Residential on March 22, 2021.^{2, 3}

After receiving approval from the CCC for the amendment to the LCP, the County Board of Supervisors adopted a resolution on July 21, 2020, to do the following:

- Amend the LCP Implementation Plan to change the zoning designation from PUD-124/CD to Planned Unit Development No. 140/Coast Development District (PUD-140/CD).
- Amend the LCP Land Use Plan to change the site's land use designation from Medium-High Density Residential to Medium Density Residential.

¹ County of San Mateo. 1986. General Plan. Available at: <https://www.smcgov.org/planning/general-plan>. Accessed May 15, 2023.

² County of San Mateo Planning and Building Department. 2023. Local Coastal Program. Available at: <https://www.smcgov.org/planning/local-coastal-program#>. Accessed May 15, 2023.

³ On April 21, 2021, a lawsuit was filed challenging the Coastal Commission staff report under CEQA, the LCP amendment under the Coastal Act, and the hearing process under the Code of Civil Procedure Section 1094.5(b). The lawsuit was dismissed entirely on April 21, 2023. Evidence supporting the challenge was not provided, and the court found that the commission complied with CEQA and the Coastal Act and did not deprive the petitioner of a fair hearing. (*Superior Court of California, 2023. County of San Francisco. Order Denying Verified Petition for Writ of Mandate Case No. CPF-21-517430. April 21, 2023.*)

- Amend LCP Section 3.15(d) to allow for 100% of the units, apart from a resident manager’s unit, to serve low-income households.
- Add the Design Review Overlay to the parcel.

Therefore, the project site land use designation in the LCP is Medium Density Residential, which allows for development at densities from 6.1 to 8.0 units per acre. The project site is zoned PUD-140/CD. This zoning designation allows for a total of 71 units on the site.⁴

Following public hearings at the County Planning Commission and Board of Supervisors in 2020, the CCC certified the LCP land use designation amendment from Medium-High Density Residential to Medium Density Residential on March 22, 2021.^{5, 6} In the San Mateo County General Plan, the project site is currently designated Medium-High Density Residential, which permits 8.8 to 17.4 units per acre. As part of project approvals, a General Plan Amendment to Medium Density Residential, which permits 6.1 to 8.7 units per acre, is proposed.

A Coastal Development Permit (CDP) application to construct the project in accordance with the PUD-140 zoning was received on July 6, 2022, by the County.

San Mateo County Planning and Building Department Design Review is required separately from the CDP application process.

1.2 PURPOSE OF ENVIRONMENTAL REVIEW

CEQA has several basic purposes:

- To inform governmental decision-makers and the public about the potential significant environmental effects of proposed activities.
- To identify the ways in which environmental damage can be avoided or substantially reduced.
- To prevent significant, avoidable damage to the environment by requiring implementation of feasible mitigation measures or project alternatives that would substantially lessen any significant effects that a project would have on the environment.
- To disclose to the public the reasons why a governmental agency approved a project in the manner the agency chose if significant environmental effects are involved.

With certain, strictly limited exceptions, CEQA requires all state and local government agencies to consider the environmental consequences of projects over which they have discretionary authority before approving or carrying out projects. CEQA establishes both procedural and substantive requirements that agencies must satisfy to meet CEQA’s objectives. For example, the agency with principal responsibility for approving or carrying out a project (the lead agency) must first assess whether a proposed project would result in significant environmental impacts. If there is substantial evidence that the project would

⁴ San Mateo County. 2013. Local Coastal Program Policies. Available at: <https://www.smcgov.org/media/73646/download?attachment>. Accessed March 3, 2023.

⁵ County of San Mateo Planning and Building Department. 2023. Local Coastal Program. Available at: <https://www.smcgov.org/planning/local-coastal-program#>. Accessed May 15, 2023.

⁶ On April 21, 2021, a lawsuit was filed challenging the Coastal Commission staff report under CEQA, the LCP amendment under the Coastal Act, and the hearing process under the Code of Civil Procedure Section 1094.5(b). The lawsuit was dismissed entirely on April 21, 2023. Evidence supporting the challenge was not provided, and the court found that the commission complied with CEQA and the Coastal Act and did not deprive the petitioner of a fair hearing. (*Superior Court of California, 2023. County of San Francisco. Order Denying Verified Petition for Writ of Mandate Case No. CPF-21-517430. April 21, 2023.*)

result in significant environmental impacts, CEQA requires that the agency prepare an EIR analyzing both the proposed project and a reasonable range of potentially feasible alternatives.

As described in the CEQA Guidelines (California Code Regulations, Title 14, Section 15121, Subdivision [a]), an EIR is an informational document that assesses potential environmental effects of a proposed project and identifies mitigation measures and alternatives to the project that could reduce or avoid potentially significant environmental impacts. Other key CEQA requirements include developing a plan to implement and monitor the success of the identified mitigation measures and carrying out specific public notice and distribution steps to facilitate public involvement in the environmental review process. As an informational document used in the planning and decision-making process, an EIR's purpose is not to recommend either approval or denial of a project. Note that an EIR does not expand or otherwise provide independent authority for the lead agency to impose mitigation measures or avoid project-related significant environmental impacts beyond the authority already within the lead agency's jurisdiction.

1.3 ENVIRONMENTAL REVIEW PROCESS

1.3.1 Notice of Preparation

A Notice of Preparation (NOP) was distributed on December 9, 2022, which began a 30-day public review period. The County accepted comments until January 9, 2023. The NOP was sent to the California State Clearinghouse, the County Clerk, adjacent Cities, potential responsible agencies, and other interested parties. Responsible agencies are those public agencies, in addition to the County, that may have a role in approving or carrying out the project. An NOP scoping meeting was held on Wednesday, December 14, 2022, at 9:00 a.m. via video conference. Oral and written comments were received at the meeting.

The scoping meeting was held to provide the public, as well as responsible and trustee agencies, an opportunity to ask questions and submit comments on the proposed program and the scope of the draft EIR. Notices of the meeting were mailed to interested parties; in addition, scoping meeting information was published on the County's website prior to the event.

In addition to County and consultant staff, one individual attended the scoping meeting. The County accepted written comments at the meeting, as well as during the 30-day scoping period. Comment forms were distributed at the scoping meeting for submission of written comments during or after the meeting. During the scoping period, 21 comments were received. The topics raised in the written and oral comments included, but were not limited to, the environmental topics listed in Table 1.3-1, which also summarizes the main issues raised in the comments.

Table 1.3-1. Summary of Scoping Comments

EIR or Initial Study Section	Main Issues Raised
EIR Chapter 2 Project Description	<ul style="list-style-type: none">• Conflict of interest with MidPen paying for CEQA study.• Coastal Development Permit and EIR approval timeline.• Provision of garbage cans and refuse receptacles.
EIR Section 3.3 Biological Resources	<ul style="list-style-type: none">• Potential presence of California red legged frog on-site.

EIR or Initial Study Section	Main Issues Raised
EIR Section 3.4 Geology and Soils	<ul style="list-style-type: none"> • Clarifications of grading, construction fill, stormwater impacts, and detailed plans for on-site open space. • Details of several slope failures and soil stability in project site. • Liquefaction zone at 16th Street. • Geotechnical investigation.
EIR Section 3.6 Hazards and Hazardous Materials	<ul style="list-style-type: none"> • Potential presence of asbestos and other contaminants. • Toxic hazard study. • Coordination with Regional Water Quality Control Board and Department of Toxic Substances Control.
EIR Section 3.7 Hydrology and Water Quality	<ul style="list-style-type: none"> • Deficient water supply. • Water company payment for new connections • Sewage, water infrastructure, and runoff. • Consultation with Regional Water Quality Control Board. • Bioretention basin locations. • Sea level rise adaptation and flood protection measures. • Increase of hardscape and flooding, drainage, and erosion.
EIR Section 3.8 Land Use and Planning	<ul style="list-style-type: none"> • Scale is too large for neighborhood.
EIR Section 3.10 Transportation	<ul style="list-style-type: none"> • Safety of intersections and driveways along Carlos, California, Stetson, and Sierra Streets. • Sidewalk and accessibility concerns. • Hazardous design of Highway 1 in project site. • Limited roadway infrastructure to serve emergency evacuation, public transit, traffic hazards. • Upgrades to roadway infrastructure to accommodate new residents, workers, and pedestrians/visitors in the project site. • Emergency evacuation challenges, increased traffic in the area. • Increase of vehicle miles traveled. • Parking concerns, existing on-street parking on Carlos Street. • Timing of traffic mitigations. • Clear explanation of transportation impacts.
EIR Section 3.11 Utilities and Service Systems	<ul style="list-style-type: none"> • Infrastructure adequacy to support the project. • Water infrastructure and payment of connections. • Pacific Gas and Electric Company easement requirement to call before excavation occurs. • Preservation of access to Montara Water and Sanitary District tanks during construction.
EIR Chapter 4 Alternatives Analysis	<ul style="list-style-type: none"> • Scale is too large for neighborhood. • Lessened units or project downsizing as an alternative.
Initial Study Section 2.18 Tribal Cultural Resources	<ul style="list-style-type: none"> • Assembly Bill 52, Senate Bill 18, and Native American Heritage Commission recommendations for cultural resources research, surveys, and reporting.

1.3.2 Draft Environmental Impact Report

This draft EIR has been prepared in accordance with CEQA and the CEQA Guidelines. It provides an analysis of the project-specific physical environmental impacts of construction and operation of the proposed project, and the project’s contribution to the environmental impacts from foreseeable cumulative development in the project site vicinity and the county as a whole.

This draft EIR will be distributed to responsible and trustee agencies, other affected agencies, surrounding cities, interested parties, and all parties requesting a copy of the draft EIR in accordance with PRC Section 21092(b)(3). The Notice of Completion and Notice of Availability of the draft EIR are distributed and posted as required by CEQA. During this 45-day period, the EIR and all technical appendices are available for review at the following locations:

Redwood City Public Library
1044 Middlefield Road
Redwood City, CA 94063

San Mateo County Planning and Building
Department
455 County Center, 2nd Floor;
Redwood City, CA 94063

Location of Documents Available for Public Review: All public review documents for this project will be available for review online at <https://www.smcgov.org/planning/cypress-point-affordable-housing-community-project>.

1.3.3 How to Comment on the Draft Environmental Impact Report

This draft EIR was published on August 10, 2023. There will be a public hearing before the Planning Commission during the 45-day public review and comment period for this draft EIR to solicit public comment on the adequacy and accuracy of information presented in this draft EIR. The public comment period for this draft EIR is August 10, 2023, to September 25, 2023. The public hearing on this draft EIR has been scheduled before the Planning Commission for September 13, 2023, in the Board of Supervisors Chambers at 400 County Center, Redwood City beginning at 9 a.m. In addition, during the public review and comment period, members of the public are invited to submit written comments on the adequacy of the document, that is, whether this draft EIR identifies and analyzes the possible environmental impacts and identifies appropriate mitigation measures.

Written comments should be submitted to:

County of San Mateo Planning and Building Dept.
Attn: Michael Schaller, Senior Planner
455 County Center, 2nd Floor; Redwood City, CA 94063

Comments may also be submitted by email to planningprojects@smcgov.org. Please include “**Cypress Point EIR**” in the subject line. Comments must be received by 5:00 p.m. on September 25, 2023.

Commenters are not required to provide personal identifying information. All written or oral communications, including submitted personal contact information, may be made available to the public for inspection and copying upon request and may appear on the County Planning and Building Department’s website or in other public documents.

Only commenters on the draft EIR will be permitted to file an appeal of the certification of the final EIR to the Board of Supervisors. The public review period is 45 days. Written responses to all significant environmental issues raised will be prepared and included as part of the final EIR and the administrative record for consideration by decision-makers for the project.

1.3.4 Final Environmental Impact Report

Following the close of the draft EIR public review and comment period, the County Planning and Building Department will prepare and publish a document entitled *Responses to Comments*, which will

contain a copy of all comments on this draft EIR and the County responses to those comments and any necessary changes to the text, along with copies of the letters received and a transcript of the Planning Commission public hearing on the draft EIR. This draft EIR, together with the Responses to Comments document, will be considered by the Planning Commission in an advertised public meeting, and then certified as a final EIR, if deemed adequate.

The Planning Commission and the Board of Supervisors will use the information in the final EIR in their deliberations on whether to approve, modify, or deny the proposed project or aspects of the proposed project. If the Planning Commission and the Board of Supervisors decide to approve the proposed project, their approval action must include findings that identify significant project-related impacts that would result; discuss mitigation measures or alternatives that have been adopted to reduce significant impacts to less-than-significant levels; determine whether mitigation measures or alternatives are within the jurisdiction of other public agencies; and explain reasons for rejecting mitigation measures or alternatives if any are infeasible for legal, social, economic, technological, or other reasons.

A Mitigation Monitoring and Reporting Program (MMRP) must be adopted by the Planning Commission and the Board of Supervisors as part of the adoption of the CEQA findings and project approvals by those bodies to the extent that mitigation measures are made part of the proposed project. The MMRP identifies the measures included in the proposed project or imposed by the decision-makers as conditions of approval, the entities responsible for carrying out the measures, and the timing of implementation. If significant unavoidable impacts would remain after all feasible mitigation measures are implemented, the approving body, if it elects to approve the proposed project, must adopt a statement of overriding considerations explaining how the benefits of the proposed project would outweigh the significant impacts.

1.4 ENVIRONMENTAL IMPACT REPORT CONTENTS

The scope of the EIR includes issues identified by the lead agency during the preparation of the NOP for the proposed project, as well as environmental issues raised by agencies and the general public in response to the NOP and at the scoping meeting. The EIR is divided into the following major sections:

Executive Summary. Provides a brief summary of the project background, description, impacts and mitigation measures, and alternatives.

Introduction. Provides the purpose of an EIR, as well as scope, content, and the use of the document.

Project Description. Provides the general background of the project, objectives, a detailed description of the project characteristics, and a listing of necessary permits and government approvals.

Environmental Impacts Analysis. Discusses the environmental setting as it relates to the various issue areas, regulatory settings, thresholds of significance, impact assessment and methodology, project-specific impacts and mitigation measures, cumulative impacts, and secondary impacts. The EIR analyzes the potentially significant impacts to the following resource areas, as identified during the preparation of the NOP:

- Aesthetics
- Air Quality
- Biological Resources
- Hydrology and Water Quality
- Land Use and Planning
- Noise

- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Transportation
- Utilities and Service Systems
- Wildfire

Other CEQA Considerations. Identifies growth-inducing impacts and a discussion of long-term/short-term productivity and irreversible environmental changes.

Alternatives Analysis. Summarizes the environmental advantages and disadvantages associated with the project and alternatives. As required, the “No Project” alternative is included among the alternatives considered. An “Environmentally Superior Alternative” is identified.

Report Preparers. Identifies the EIR authors and the agencies, organizations, and individuals consulted during preparation of the draft EIR. In addition, the project sponsors, their attorneys, and any consultants working on their behalf are listed.

The EIR has 19 appendices:

- Appendix A. Notice of Preparation
- Appendix B. CEQA Initial Study
- Appendix C. Air Quality and Greenhouse Gas Technical Report
- Appendix D. Biological Impact Report
- Appendix E. Arborist Report
- Appendix F. Geotechnical Investigation
- Appendix G. Cultural Resources Evaluation
- Appendix H. Phase I Environmental Site Assessment
- Appendix I. Limited Phase II Subsurface Investigation
- Appendix J. Draft Site Management Plan
- Appendix K. Additional Subsurface Investigation and Water Well Evaluation
- Appendix L. Water Well Sampling and Well Destruction
- Appendix M. Environmental Site Investigation Responses to Comments
- Appendix N. Wildfire and Evacuation Route Assessment
- Appendix O. Noise and Vibration Assessment
- Appendix P. Noise Assessment Update of Proposed Tree Removal Activities
- Appendix Q. Cypress Point Traffic Impact Analysis and Mitigation Plan
- Appendix R. Traffic Impact Analysis Peer Review and Vehicle Miles Traveled Analysis
- Appendix S. Energy Technical Report

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CHAPTER 2. PROJECT DESCRIPTION

2.1 OVERVIEW

The Cypress Point Affordable Housing Community Project (proposed project) is an affordable housing development sponsored by MidPen Housing Corporation (MidPen) and designed to provide affordable housing in the San Mateo Midcoast region. The intention of the project sponsors and the County of San Mateo (County) is to improve the jobs/housing balance and jobs/housing fit by providing preference for those who live or work on the San Mateo Coast.

2.2 PROJECT LOCATION

2.2.1 Regional Setting

The project site is located within the unincorporated community of Moss Beach in San Mateo County (Figure 2.2-1). San Mateo County is situated along the central coast of California and encompasses approximately 554 square miles (including tidal waters) of the San Francisco Peninsula. The county's western border is on the Pacific Ocean and the eastern border is on the San Francisco Bay shoreline. The county is bounded by the City and County of San Francisco to the north and by Santa Cruz and Santa Clara Counties to the south and southeast, respectively. Moss Beach is located in northern San Mateo County, 4 miles northwest of the city of Half Moon Bay, and encompasses approximately 2.25 square miles of land.

The Santa Cruz Mountain Range crosses San Mateo County north-south, dividing the county into two distinct regions: the Coastside and the Bayside. The Coastside is characterized by coastal terraces transitioning into the gently sloping foothills of the Santa Cruz Mountains. The Bayside is characterized by low-lying mudflats, marshes, artificial fill, and broad, flat alluvial plains. Farther west, this low-lying region transitions into the foothills of the Santa Cruz Mountains, increasing in slope to 15 to 30 percent near its crest. Moss Beach is within the Coastside region.

2.2.2 Local Setting

The proposed project is located on an 11.02-acre parcel adjacent to the northeast corner of the intersection of Carlos Street and Sierra Street in Moss Beach (Figure 2.2-2). The parcel is designated as Assessor's Parcel Number (APN) 037-022-070. The project site is bounded by vacant land to the southwest (toward Highway 1), residential properties along 16th Street to the northwest (in the community of Montara), and residential properties along Carlos, Sierra, and Lincoln Streets, which border the site on the eastern and southern sides. Individual houses along Stetson Street and Buena Vista Street also border the property. The project site is approximately 750 feet east of the Pacific Ocean and is within 250 feet of Montara Creek at its closest point.

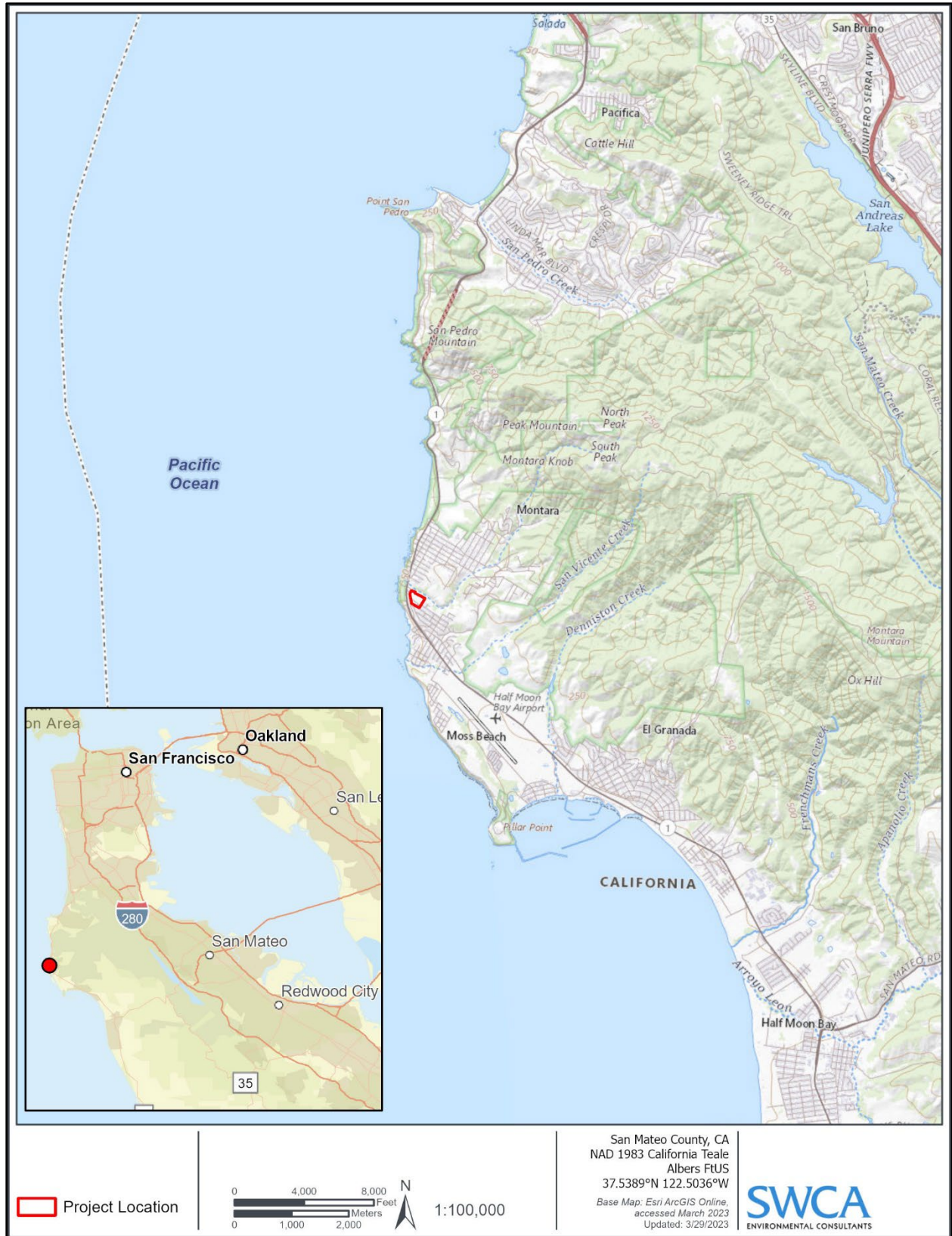


Figure 2.2-1. Project location map.

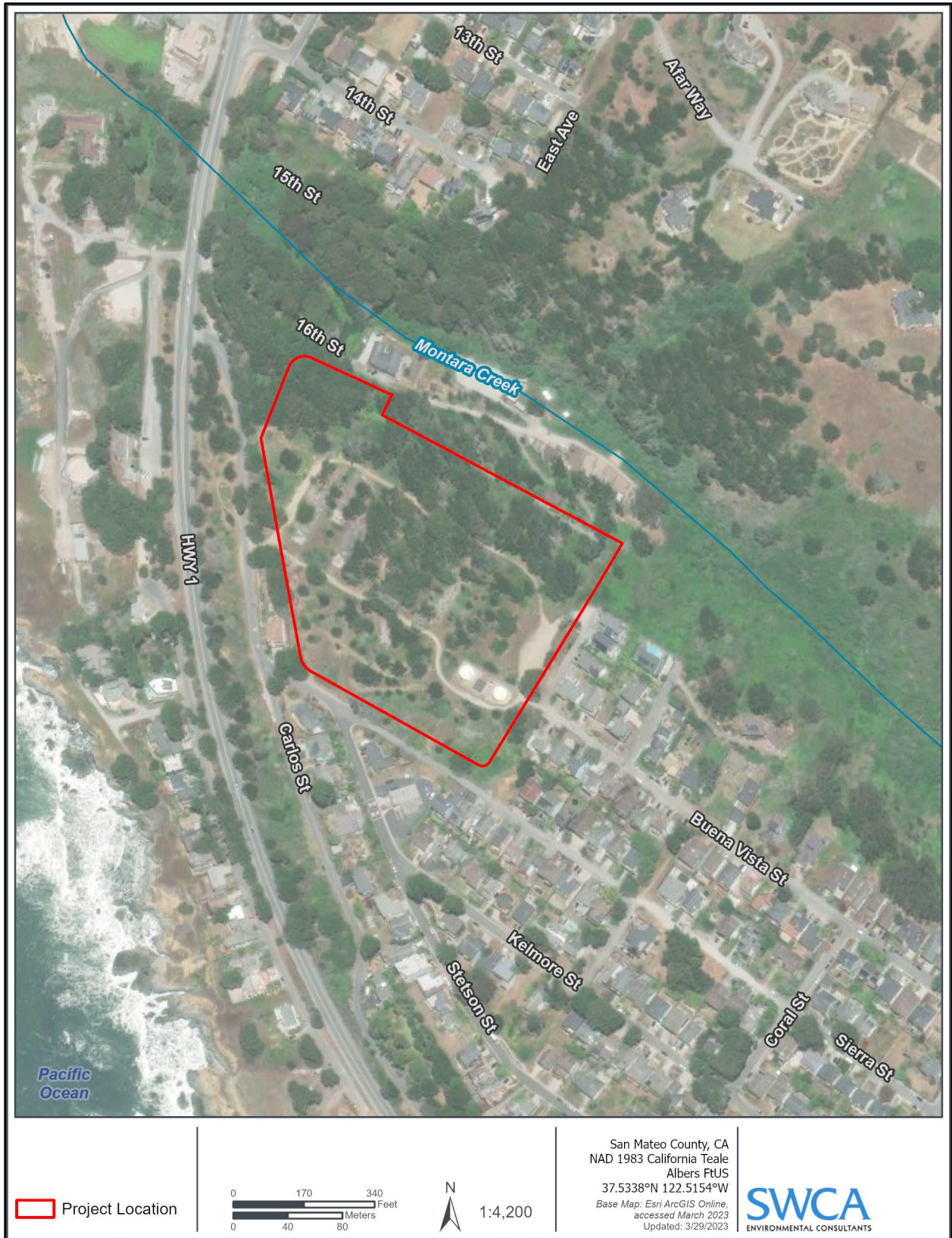


Figure 2.2-2. Project vicinity map.

2.3 EXISTING CONDITIONS

2.3.1 Land Use and Zoning

The project site is within the California Coastal Zone.⁷ In 1980, the County adopted their Local Coastal Program (LCP), which the California Coastal Commission (CCC) certified. The LCP, together with the County's Ordinance Code and zoning map, constitute the Local Coastal Program for the County's coastal zone. All development in the Coastal Zone requires either a Coastal Development Permit (CDP) or an exemption from CDP requirements. The County is the designated agency responsible for CDP approval of projects within the unincorporated San Mateo County limits. The current edition of the LCP policies includes amendments approved through August 8, 2012.⁸ For a permit to be issued, the development must comply with the policies of the LCP and those ordinances adopted to implement the LCP. These policies have been adopted by reference into the County's Zoning Regulations under Chapter 20B, Section 6328.19 through 6328.30.

When the CCC certified the County's LCP in 1980, the project site was designated as "Affordable Housing" by both the County and the CCC. In 1986, the County approved, and the CCC certified, a rezoning of the project site to Planned Unit Development No. 124/Coast Development District (PUD-124/CD) to enable the construction of a mixed-market rate/affordable housing development (Farallone Vista) consisting of 148 dwelling units. Under the 1986 amendment, the project site had a land use designation of Medium-High Density Residential. The Medium-High Density Residential designation allowed for development at densities of between 8.8 to 17.4 housing units per acre.⁹ This project was never developed. In the LCP, the site is designated as infill and as a priority development site for affordable housing.¹⁰ The site is also designated as an affordable housing opportunity site under the San Mateo County Housing Element.¹¹

In July 2018, the County received an application from MidPen for the proposed Cypress Point Affordable Housing Community Project. This application proposed amending the LCP and rezoning the project site to allow the proposed project. The proposed rezoning reduced the maximum development density on the site and restricted all dwelling units for affordable housing. The project consists of the proposed development of 70 affordable housing units and one manager's unit on an 11.02-acre parcel (project site) in the unincorporated community of Moss Beach.

After receiving approval from the CCC for the amendment to the LCP, the County Board of Supervisors adopted a resolution on July 21, 2020 to do the following:

- Amend the LCP Implementation Plan to change the zoning designation from PUD-124/CD to Planned Unit Development No. 140/Coast Development District (PUD-140/CD).
- Amend the LCP Land Use Plan to change the site's land use designation from Medium-High Density Residential to Medium Density Residential.

⁷ California Coastal Commission. Maps: Coastal Zone Boundary. Available at: <https://www.coastal.ca.gov/maps/czb/>. Accessed May 15, 2023.

⁸ County of San Mateo Planning and Building Department. 2023. Local Coastal Program. Available at: <https://www.smcgov.org/planning/local-coastal-program#>. Accessed December 15, 2022.

⁹ County of San Mateo. 1986. General Plan. Available at: <https://www.smcgov.org/planning/general-plan>. Accessed May 15, 2023.

¹⁰ San Mateo County. 2013. *Local Coastal Program Policies*. Available at: <https://www.smcgov.org/planning/local-coastal-program>. Accessed March 30, 2023.

¹¹ County of San Mateo. 2023. *San Mateo County Housing Element Update 2023-2031*. Available at: <https://www.smcgov.org/planning/san-mateo-county-housing-element-update-2023-2031>. Accessed January 9, 2023.

- Amend LCP Section 3.15(d) to allow for 100% of the units, apart from a resident manager's unit, to serve low-income households.
- Add the Design Review Overlay to the parcel.

Therefore, the project site land use designation in the LCP is Medium Density Residential, which allows for development at densities from 6.1 to 8.0 units per acre. The project site is zoned PUD-140/CD. This zoning designation allows for a total of 71 units on the site.¹²

Following public hearings at the County Planning Commission and Board of Supervisors in 2020, the CCC certified the LCP land use designation amendment from Medium-High Density Residential to Medium Density Residential on March 22, 2021.^{13, 14} In the San Mateo County General Plan, the project site is currently designated Medium-High Density Residential, which permits 8.8 to 17.4 units per acre. As part of project approvals, a General Plan Amendment to Medium Density Residential, which permits 6.1 to 8.7 units per acre is proposed.

A Coastal Development Permit (CDP) application to construct the project in accordance with the PUD-140 zoning was received on July 6, 2022, by the County.

The San Mateo County Planning and Building Department Design Review is required separately from the CDP application process.

2.3.2 Site Development History

In 1945, the project site was developed by the U.S. Navy as the Point Montara Artillery Training Station as a military training site, which included construction of barracks, offices, a mess hall, a library, a garage, a boiler room, an incinerator, a hanger, and a drill field. After World War II, the military abandoned the site and it was acquired by the Montara Elementary School District for the Farallon View Elementary School. Between 1968 and 1970, a fire destroyed the on-site buildings, leaving numerous slab-on-grade concrete foundations and retaining walls. The parcel has remained vacant since 1970.

In 1986, two domestic water supply wells were installed on the project site and the permits were granted to the California School Employee Association.¹⁵ Both wells were abandoned at an undetermined date. One well near the northern property boundary was discovered in 2015 during the Phase II investigation for the project. This well was cleared of debris, demolished, and sealed with cement to the 350-foot depth in 2018, in accordance with County Environmental Health Services requirements.¹⁶ The second well was not found during reconnaissance.

¹² San Mateo County. 2013. Local Coastal Program Policies. Available at: <https://www.smcgov.org/media/73646/download?attachment>. Accessed March 3, 2023.

¹³ County of San Mateo Planning and Building Department. 2023. Local Coastal Program. Available at: <https://www.smcgov.org/planning/local-coastal-program#>. Accessed May 15, 2023.

¹⁴ On April 21, 2021, a lawsuit was filed challenging the Coastal Commission staff report under CEQA, the LCP amendment under the Coastal Act, and the hearing process under the Code of Civil Procedure Section 1094.5(b). The lawsuit was dismissed entirely on April 21, 2023. Evidence supporting the challenge was not provided, and the court found that the commission complied with CEQA and the Coastal Act and did not deprive the petitioner of a fair hearing. (*Superior Court of California, 2023. County of San Francisco. Order Denying Verified Petition for Writ of Mandate Case No. CPF-21-517430. April 21, 2023.*)

¹⁵ AEI Consultants. 2018. *Water Well Sampling and Well Destruction*. AEI Consultants.

¹⁶ AEI Consultants. 2015. *Phase 1 Environmental Site Assessment*. AEI Consultants.

2.3.3 Existing Site Conditions

The project site is currently unoccupied and contains concrete building foundations and retaining walls in the center. In some areas, these foundations are covered by graffiti and thick vegetation. Thick vegetation also covers the majority of the project site outside the areas of the building foundations. The vegetation on-site is a variety of grassland, coastal scrub, and ruderal species, with Monterey cypress (*Cupressus macrocarpa*) and Monterey pine (*Pinus radiata*) forest along the northern boundary of the project site.¹⁷ Unpaved internal roadways extend northwest-southeast across the north and central portions of the project site.

The project site contains easements for facilities operated by the Montara Water and Sanitary District (MWSD), including two water storage tanks with a height of 35 feet, a booster pump system, and distribution facilities within a fenced parcel of land adjacent to and west of the intersection of Lincoln Street and Buena Vista Street near the eastern boundary of the project site.

The project site has a range of slopes from 10 to 50 percent. Elevations range from a high point of 205 feet above mean sea level (amsl) on the east side of the project adjacent to Lincoln Street to a low point of 95 feet amsl at the northwest boundary along 16th Street.¹⁸ Montara Creek, a perennial stream, is approximately 250 feet to the northeast of the project site and runs parallel to the northern border of the site (prior to emptying into the Pacific Ocean).

2.3.4 Existing Vehicle Access

There is one existing unpaved internal road on the project site, which is the continuation of Buena Vista Street between Lincoln Street and Carlos Street. The project site can be accessed from Buena Vista Street, Lincoln Street, and Carlos Street. The MWSD water tanks on the southeastern portion of the site are accessed by this unpaved portion of Buena Vista Street.

2.3.5 Existing Utilities

2.3.5.1 Potable Water

MWSD supplies potable water to the project site and Moss Beach.¹⁹ The MWSD water system includes raw (untreated) water and treated water storage facilities. Water is conveyed to MWSD's customers through a network of pipes approximately 150,000 feet long ranging in diameter from 2 to 16 inches, two booster pump stations, and 28 pressure regulating valve stations.²⁰

The 10-foot-wide MWSD easement that bisects the project parcel contains water lines, including an 8-inch water line extending from both Sierra Street and Buena Vista Street through the project site to the fenced MWSD facilities. A 10-inch water line extends from Carlos Street to the MWSD facilities.

¹⁷ SWCA. 2023. Cypress Point Affordable Housing Community Project Biological Impact Report. Included as Appendix D.

¹⁸ Pyatok Architects. 2022. Cypress Point Family Community. Coastal Development Permit Submittal. Pyatok Architects.

¹⁹ MWSD. 2017. Map of Service Area. Available at: https://mwsd.montara.org/about/map-of-service-area_ Accessed March 20, 2023.

²⁰ MWSD. 2017. *2017 Water System Master Plan*. pp 95 of 163. Available at: https://mwsd.montara.org/assets/uploads/documents/MWSD_2017%20Master%20Plan%20Update_Rev17_082417_Full.pdf. Accessed May 15, 2023.

2.3.5.2 Wastewater

MWSD provides wastewater collection for Montara and Moss Beach and would serve the project site. The wastewater collection system is composed of approximately 125,000 linear feet of gravity sewage collection system, 13 major pump stations, 28 MWSD-maintained individual house pumps, and 28,600 linear feet of force main pipes.²¹ MWSD is a member of the Sewer Authority Mid-Coastside, which provides municipal wastewater treatment for the City of Half Moon Bay, Granada Sanitary District, and MWSD.²²

Although wastewater lines are located within Carlos Street, there is no existing wastewater infrastructure on the project site.

2.3.5.3 Stormwater

There is no existing stormwater infrastructure on the project site. Stormwater percolates on-site, with excess surface flows draining toward Carlos Street and 16th Street. Stormwater ultimately discharges to Montara Creek within the James V. Fitzgerald Area of Specific Biological Significance watershed.

2.3.5.4 Refuse and Recycling

MWSD contracts with Recology of the Coast for trash pickup, recycling, and waste hauling in Moss Beach. Solid waste is collected and transferred to Ox Mountain Sanitary Landfill in Half Moon Bay.²³ MWSD and Recology would be designated suppliers to the project site and would provide refuse and recycling service.

2.3.5.5 Electricity and Natural Gas

Pacific Gas and Electric Company (PG&E) provides natural gas and electricity to unincorporated San Mateo County through existing infrastructure. There is a 10-foot-wide easement for PG&E facilities under the unpaved road on the southwestern portion of the project site. The easement runs northeast-southwest diagonally along the southwest corner of the MWSD tanks and continues east along a proposed access loop. The project site contains some existing electrical infrastructure but no natural gas infrastructure. Natural gas would not be used during project operation.

2.4 PROJECT OBJECTIVES

MidPen seeks to achieve the following objectives by undertaking the proposed project to provide affordable housing on the coastal portion of San Mateo County:

1. Provide a significant number of low-income affordable housing units in a vibrant, safe, well-designed community that respects the coastal character of the region, consistent with the San Mateo County Housing Element Adequate Site Inventory.
2. Provide affordable housing in the region at cost-effective densities that are competitive for financing.

²¹ MWSD, 2017. *2017 Water System Master Plan*.

²² Sewer Authority Mid-Coastside. 2022. Available at: <https://samcleanswater.org/>. Accessed March 20, 2023.

²³ Stevens Consulting. 2018. Public Services and Utilities. Section 7.3 Solid Waste. July 2018.

3. Address housing needs of households, families, and workers in the Midcoast and surrounding region.
4. Provide housing for a diverse range of low-income workers and families.
5. Improve the jobs/housing balance and jobs/housing fit in the region by providing affordable dwelling units near coastal jobs.
6. Provide informal recreational opportunities for residents in the region and the general public by providing access to a trail on undeveloped portions of the site.
7. Be consistent with the character of the surrounding neighborhood by adhering to the existing development guidelines to the extent feasible.

2.5 PROJECT CHARACTERISTICS

2.5.1 Proposed Local Resident Selection

All units, except for the manager’s apartment, would be affordable to households earning up to 80% of the Area Median Income. In addition, the project proposes to include a preference for individuals who live and/or work in the region for 75% of the units. An agreement between the County Department of Housing and Moss Beach Associates, L.P. (No. 79000-21-R076201E), states that 52 of the 71 units shall be “Local Preference Units.” Eligible households are those that include at least one member who lives or works in the city of Pacifica, the city of Half Moon Bay, and/or the unincorporated County region between the city of Pacifica and the city of Half Moon Bay, or the Greater Moss Beach Region. This preference structure increases chances for individuals who meet these criteria to live in this development, although it does not restrict individuals who do not live and/or work in the area from being accepted. Additionally, 18 of the 71 units would be reserved for agricultural workers.²⁴ Based on the most recent available data from the 2019 U.S. Census Bureau, there are 12,177 jobs located in the County’s coastal region (Princeton, Miramar, El Granada, Montara, and Moss Beach) and the neighboring coastal cities of Pacifica and Half Moon Bay. Among these jobs, 7,892 (64.8%) are held by individuals commuting from outside this area. In total, 2,839 of these jobs require commutes between 10 and 24 miles, and 3,033 additional jobs require commutes of 25 miles or more.²⁵

2.5.2 Proposed Project Facilities

The project proposes the development of 70 affordable housing units and one manager’s unit, contained in 16 two-story buildings and a single-story community building for a total of 66,738 square feet (Figure 2.5-1). The project includes six different building layouts and unit configurations, ranging in height from 23 to 28 feet.

The project would cluster the residential units toward the northwestern corner of the site, retaining the forested open space on the northernmost portion of the site, and leaving room for landscaping and public trails to the south and east. The project does not include changes to the two existing water tanks on the site (see Figure 2.5-1).

Building materials would include wood-look cement board siding in shades of dark red and brown and grey composite shingle roofing materials (Figure 2.5-2).

²⁴ Email. Personal communication between Serena Ip and Erica Rippe. July 14, 2023.

²⁵ U.S. Census Bureau. 2019. Quickfacts: San Mateo County, California. Available at: <https://www.census.gov/quickfacts/sanmateocountycalifornia>. Accessed January 23, 2023.

2.5.2.1 Dwelling Units

There would be 63,374 square feet of residential housing configured within six different, two-story building types and containing 71 residential units, which would house approximately 213 residents, based on occupancy rates at other properties owned or managed by MidPen. The project would provide a mixture of one-, two-, and three-bedroom units, including a combination of two-story townhouses²⁶ and Americans with Disabilities Act (ADA)-accessible one-story flats. Each unit would have bicycle parking and one assigned parking space. Building characteristics for all proposed building types (residential and community buildings) are shown in Table 2.5-1 and Figure 2.5-3 through Figure 2.5-8.

Table 2.5-1. Building Characteristics

Building Type	Number of Buildings	Units	Square Feet (includes covered exterior areas)	Maximum Height
Building A	1	16 one-bedroom flats	9,182	27 feet 10 inches
Building B	1	5 two-bedroom flats 2 three-bedroom flats	6,630	27 feet 11 inches
Building C1	4	4 two-bedroom flats	3,691	27 feet 9 inches
Building C2	1	4 two-bedroom flats	3,692	27 feet 6 inches
Building D	8	2 three-bedroom townhomes	2,258	27 feet 0 inches
Building E	1	12 two-bedroom flats	11,042	27 feet 9 inches
Community Building	1	N/A	3,364	23 feet 5 inches
Total	17	16 one-bedroom units 37 two-bedroom units 18 three-bedroom units 1 community building	66,735	

Note: N/A = not applicable.

²⁶ The main difference between a townhouse and an apartment or flat is the structural organization. Townhouses are typically free-standing and may share a wall with an adjacent unit. Typically, an apartment is a unit in a larger building that encompasses a community inside one building.

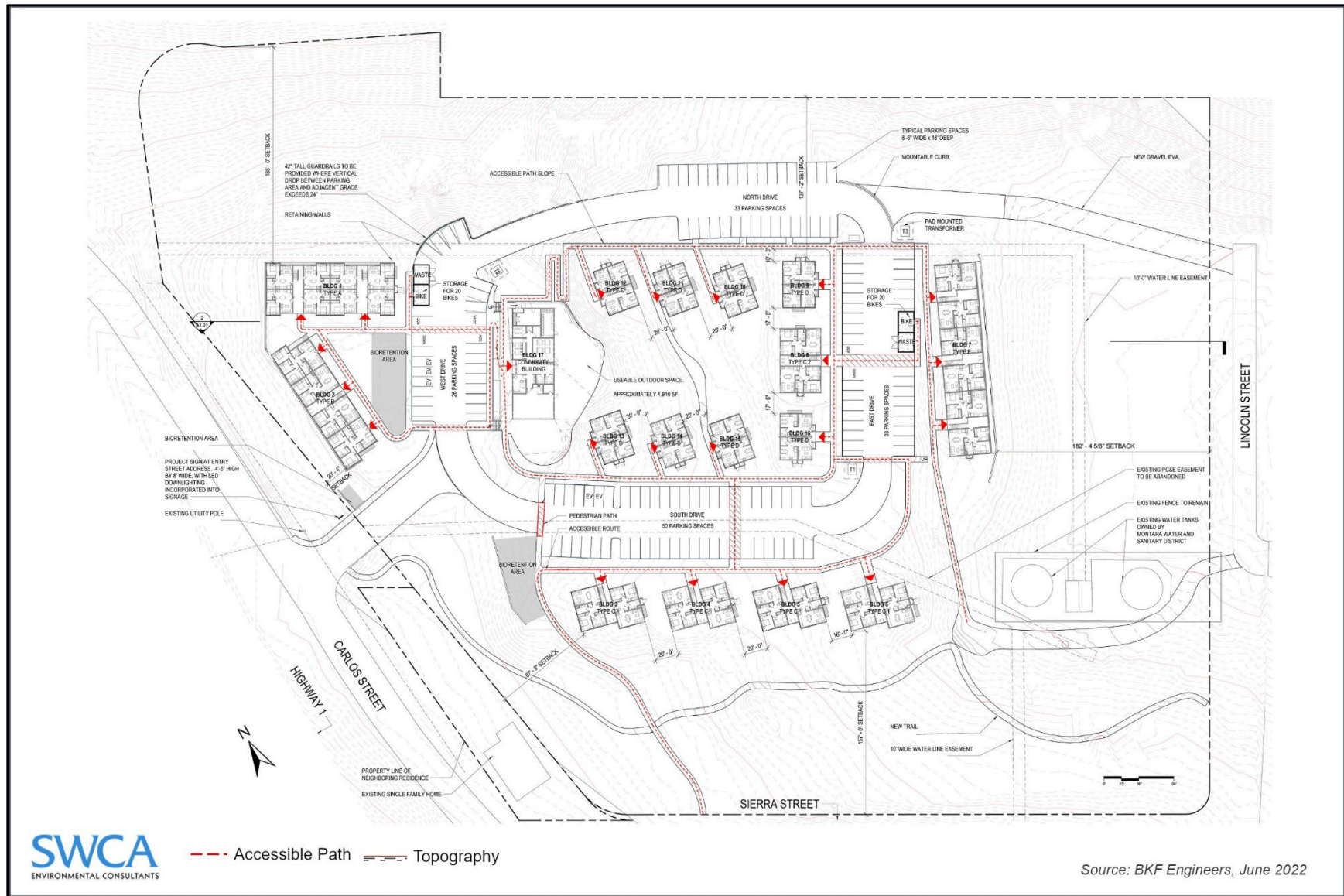


Figure 2.5-1. Project site plan.



Figure 2.5-2. Building materials.

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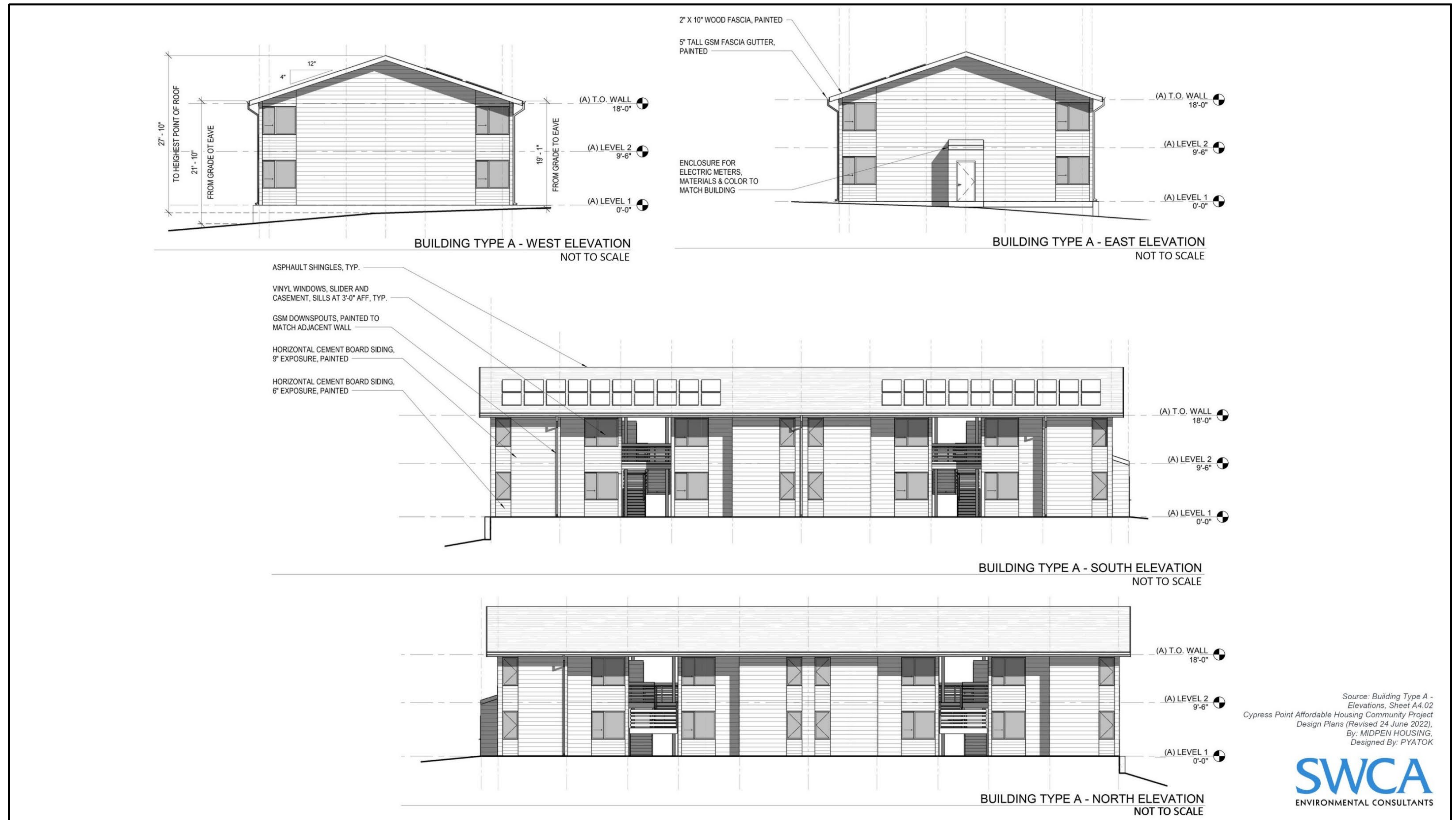
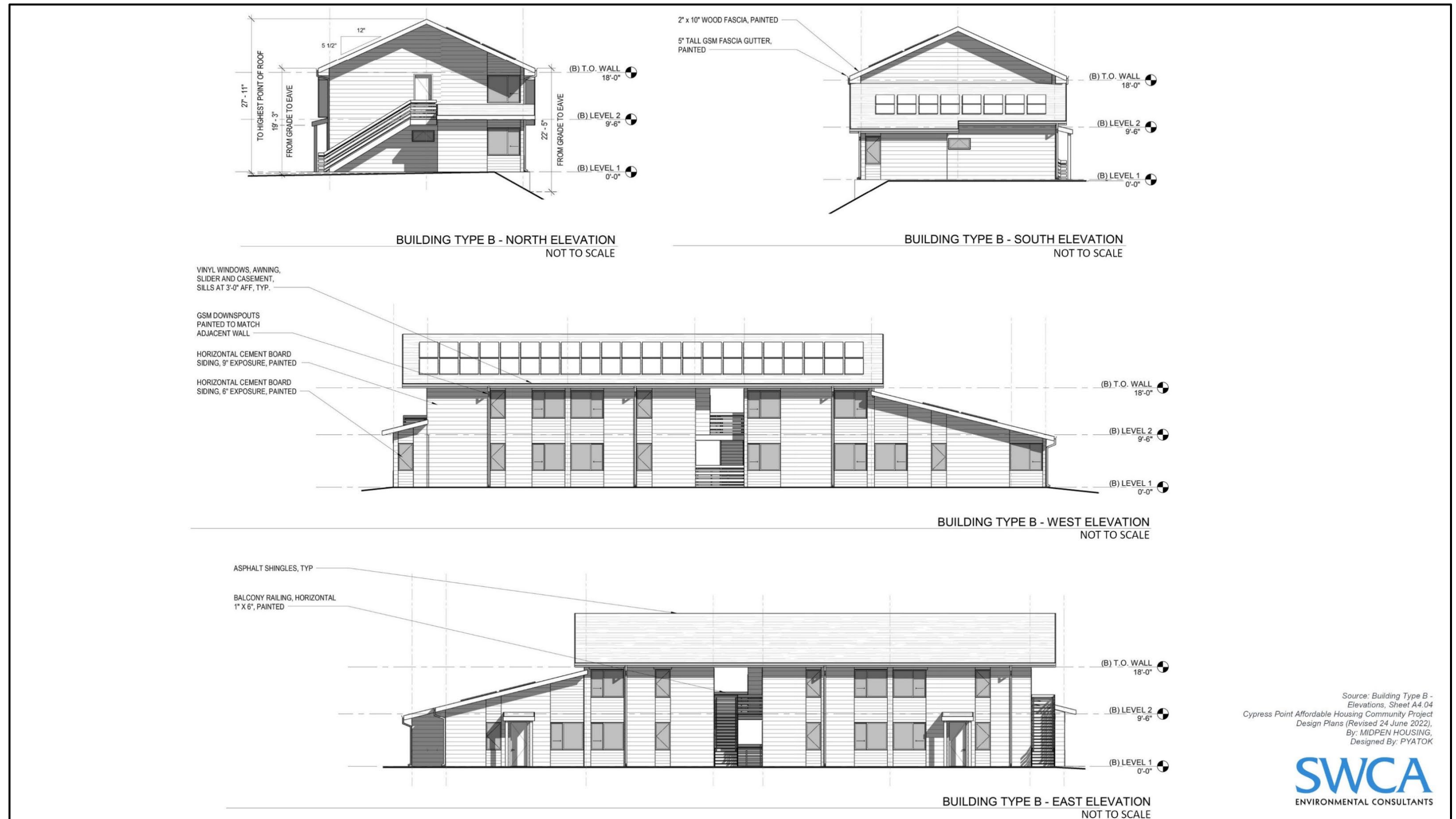


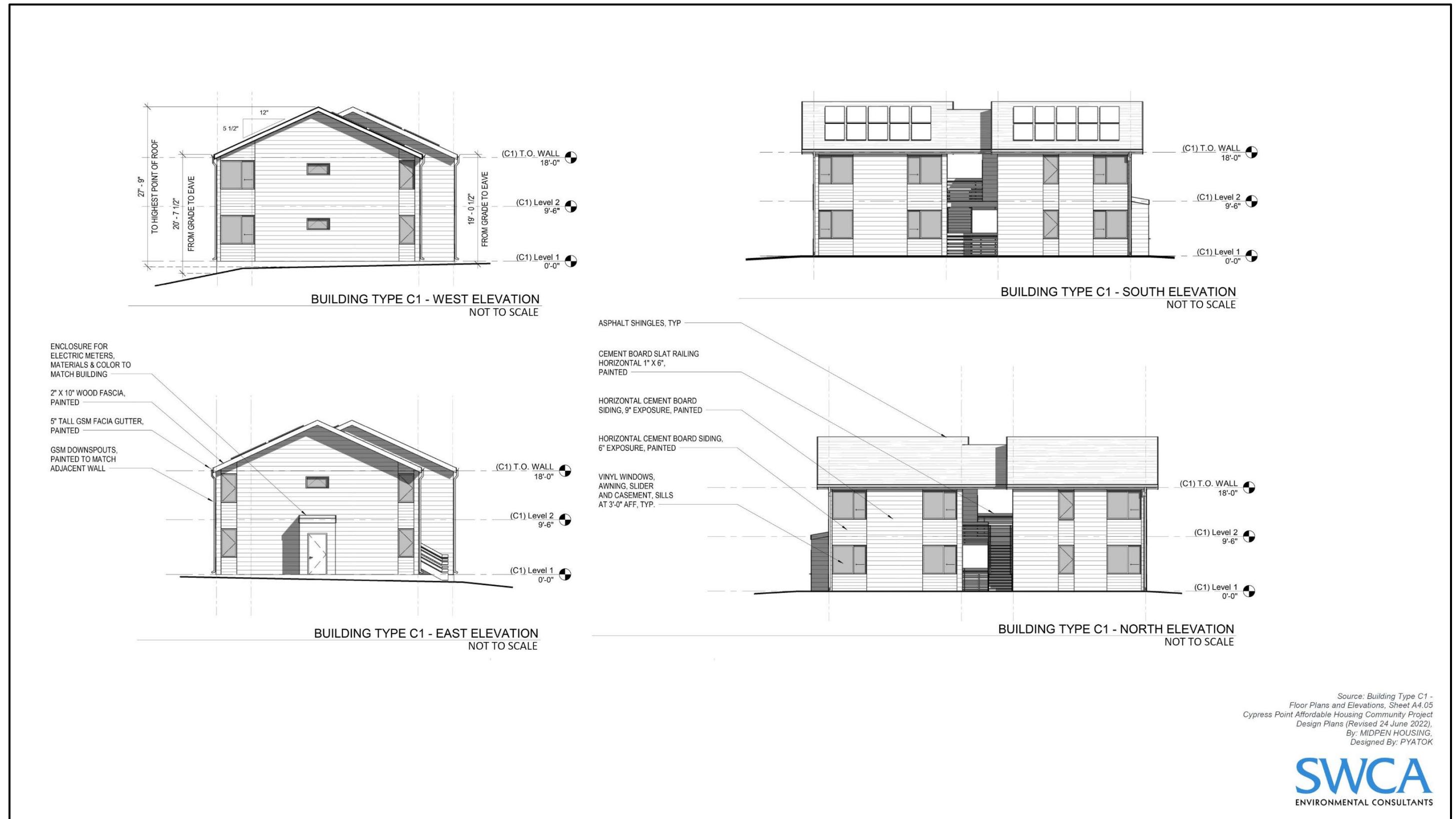
Figure 2.5-3. Building Type A.



Source: Building Type B - Elevations, Sheet A4.04
 Cypress Point Affordable Housing Community Project Design Plans (Revised 24 June 2022),
 By: MIDPEN HOUSING,
 Designed By: PYATOK



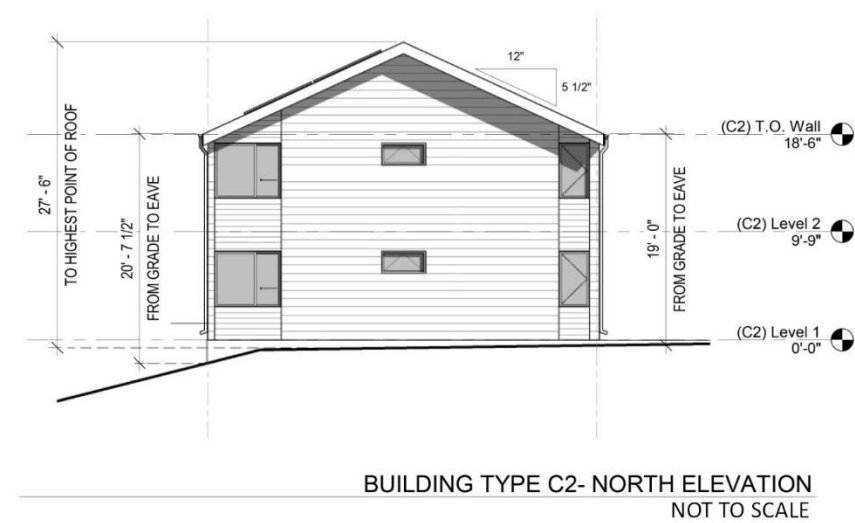
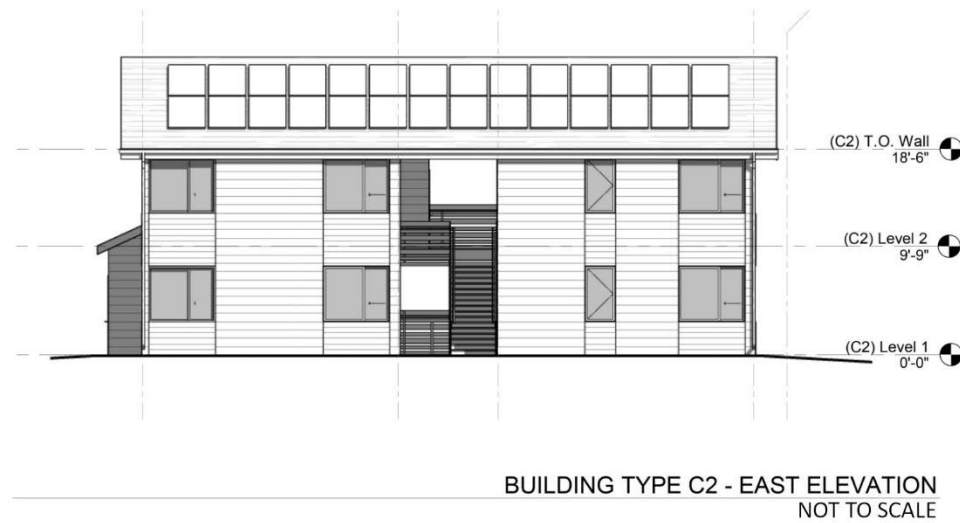
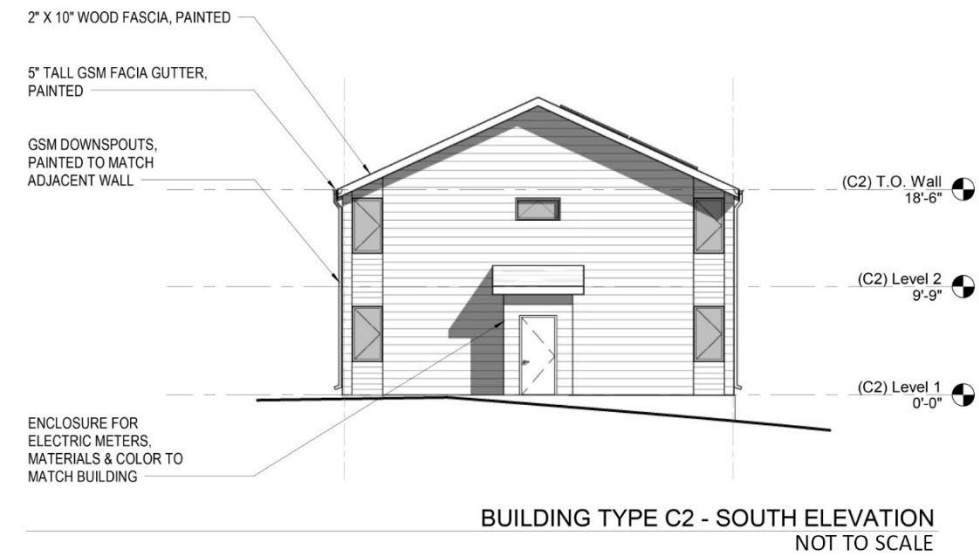
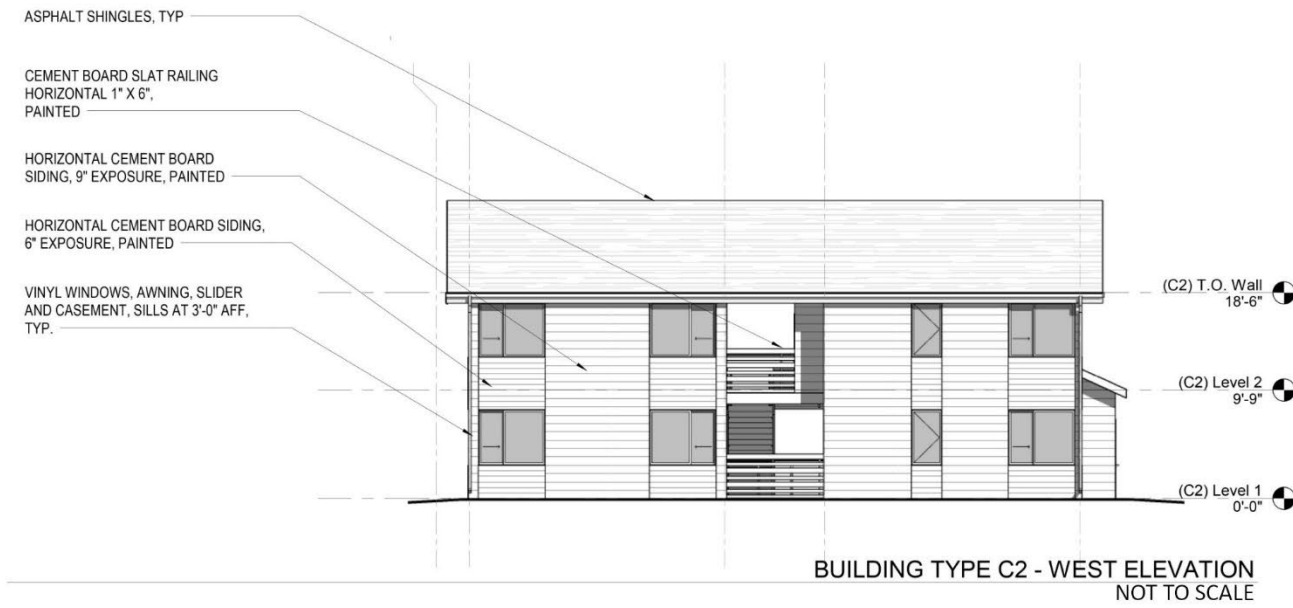
Figure 2.5-4. Building Type B.



Source: Building Type C1 -
 Floor Plans and Elevations, Sheet A4.05
 Cypress Point Affordable Housing Community Project
 Design Plans (Revised 24 June 2022),
 By: MIDPEN HOUSING,
 Designed By: PYATOK



Figure 2.5-5. Building Type C1.



Source: Building Type C2 -
 Floor Plans and Elevations, Sheet A4.06
 Cypress Point Affordable Housing Community Project
 Design Plans (Revised 24 June 2022),
 By: MIDPEN HOUSING,
 Designed By: PYATOK



Figure 2.5-6. Building Type C2.



Figure 2.5-7. Building Type D.



Figure 2.5-8. Building Type E.

2.5.2.2 Community Building and Amenities

The project would also involve construction of a 3,364-square-foot community building in the western portion of the project site, on the inner side of an access loop (described below). The community building would contain an office for residential and leasing services, laundry facilities, maintenance and storage areas, a meeting room, computer room, and kitchen (Figure 2.5-9).

A children's play area would be constructed adjacent to the community building with play structures for children between ages 2 and 12 years. A barbeque and picnic area south of the community building and a scenic overlook and picnic area at the southeast corner of the development would also be constructed. Three areas of synthetic turf between Building A and Building B and adjacent to the community building to the east and south would provide areas for outdoor recreation (Figure 2.5-10).

The project would have a fenced community garden north of the community building with raised planting beds and a compost area. A network of pedestrian pathways linking residential buildings and community facilities and amenities throughout the project site would be available for recreational use by both residents and the general public. The pathways would be privately maintained public open space. These pathways would include new unpaved pedestrian trails along the southern side of the property that connect to a driveway on Carlos Street (described below) and follow the alignment of an existing trail in the southeast corner of the site. A concrete multi-modal path from the driveway south to Sierra Street would be constructed (see Figure 2.5-10).

2.5.3 Parking, Circulation, and Access

Vehicular ingress/egress to and from the project site would be provided by a new 28-foot-wide single driveway on Carlos Street on the western boundary of the site (Figure 2.5-11). The entrance driveway would split into an access loop that circles the residential and community building areas. In addition to the main entrance, there would be an emergency access route from Lincoln Street to the northeast corner of the project.

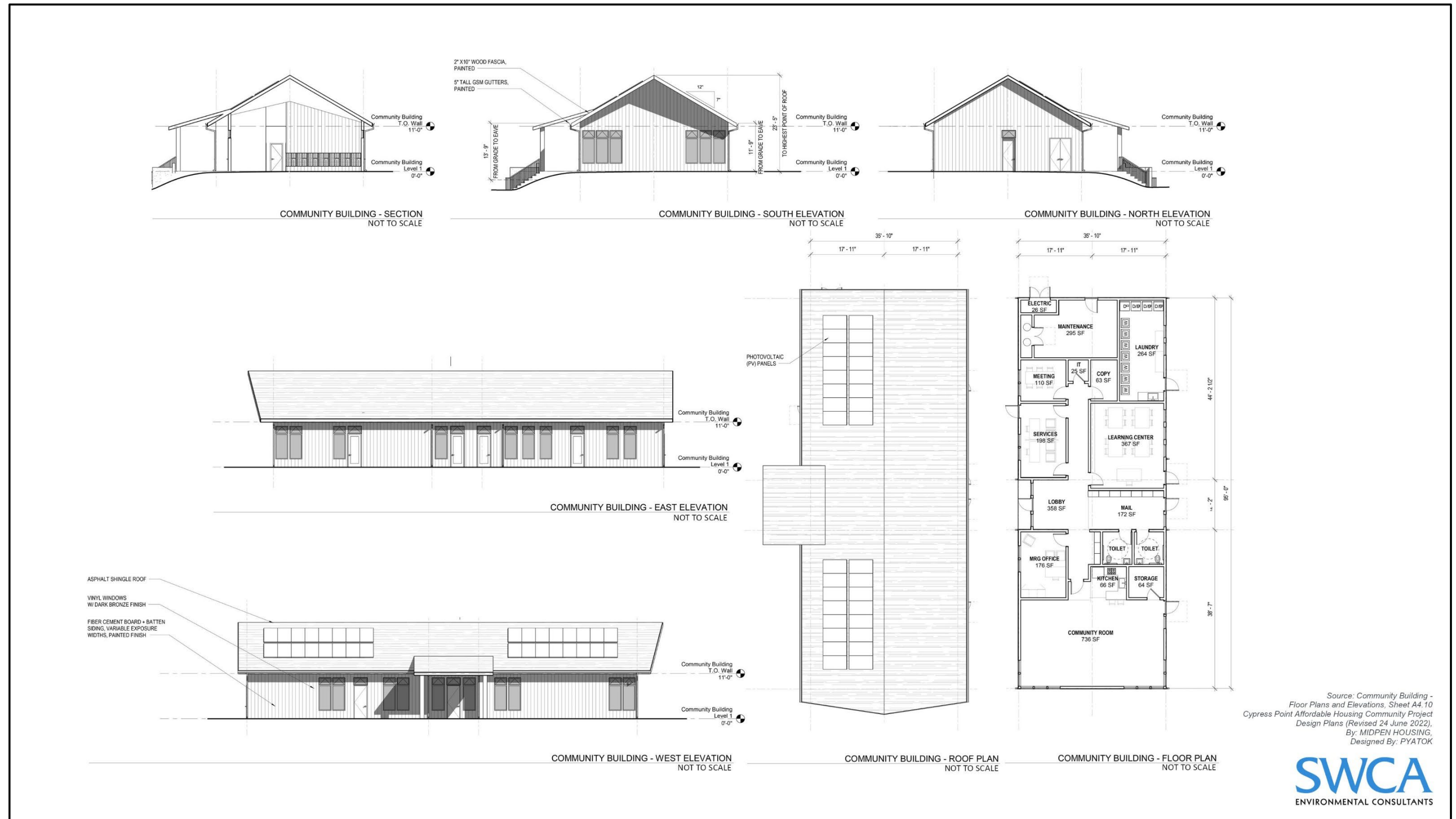
The project includes a total of 142 vehicular parking spaces in four separate parking areas, forming a loop around the central core of apartment buildings. Of these 142 spaces, there would be six designated ADA parking spaces, and 36 would be electric vehicle parking spaces (Figure 2.5-1). The project also includes 21 electric vehicle-capable parking spaces for both low power charging receptacles and Level 2 Electric Vehicle Supply Equipment to meet the California Green Building Code requirements and the County's current Building Regulations.

There are no designated motorcycle parking spaces, vehicle loading, or drop-off spaces planned. In addition to vehicle parking, there would be two secure bicycle parking enclosures on the east and west sides of the central driveway. These enclosures would each contain space for up to 20 bicycles. There would also be bicycle racks available in most of the building types and adjacent to the community building.

2.5.5 Site Design and Pedestrian Circulation

The following site design and pedestrian circulation improvements are proposed by the project sponsor as part of the project:

- **Carlos Street**
 - **Sidewalk:** The project sponsor will add a sidewalk on the east side of Carlos Street south of the proposed project driveway entrance to connect with the existing sidewalk on the north side of Sierra Street.
 - **Revise Pavement Marking and Signage at Site Entrance:** The project sponsor will revise the site plan for the driveway entrance at Carlos Street to include pavement markings and signage to alert drivers exiting the site onto Carlos Street to be aware of traffic at the intersection. To ensure compliance with this recommended improvement measure the project sponsor shall submit updated site plans as part of the building permit process.
- **Sierra Street/Stetson Street**
 - **Sidewalk:** The project sponsor will clear/plane existing sidewalk on north side of Sierra Street east of Carlos Street that fronts project site.
 - **Curb Ramp and Crosswalk:** The project sponsor will add a curb ramp and high visibility crosswalk with advanced yield markings (2) and yield signs (2) for pedestrians to cross Sierra Street to Stetson Street at the T-intersection of Sierra and Stetson streets.
 - **One-Way Stop:** The project sponsor will add a one-way stop sign on the northbound approach to Stetson Street.
- **On-Site Circulation**
 - **Higher Visibility Crossings:** The project sponsor will include high visibility crossings to support bicycling and walking as safe modes of transportation.
 - **Signage and Pavement Markings:** The project sponsor will add signage and pavement markings to make drivers aware of bicyclists and pedestrians, especially ahead of road crossings around the site to alert drivers to yield and at the road crossings associated with the multiple parking areas along the loop road.
 - **Speed Humps:** The project sponsor will install speed humps to maintain low on-site vehicular speed.
 - **Sidewalk Widening:** The project sponsor will construct the on-site sidewalk network wider than a 4-foot width in order to accommodate bicyclists and pedestrians separate from the roadway with vehicles.
 - **Wayfinding Signage:** The project sponsor will strengthen the connection between site and the larger pedestrian and bicycle network to facilitate access to transit through implementation of features such as wayfinding signage.



Source: Community Building - Floor Plans and Elevations, Sheet A4.10
 Cypress Point Affordable Housing Community Project Design Plans (Revised 24 June 2022),
 By: MIDPEN HOUSING,
 Designed By: PYATOK



Figure 2.5-9. Community building.



Figure 2.5-10. Project landscaping and amenities.

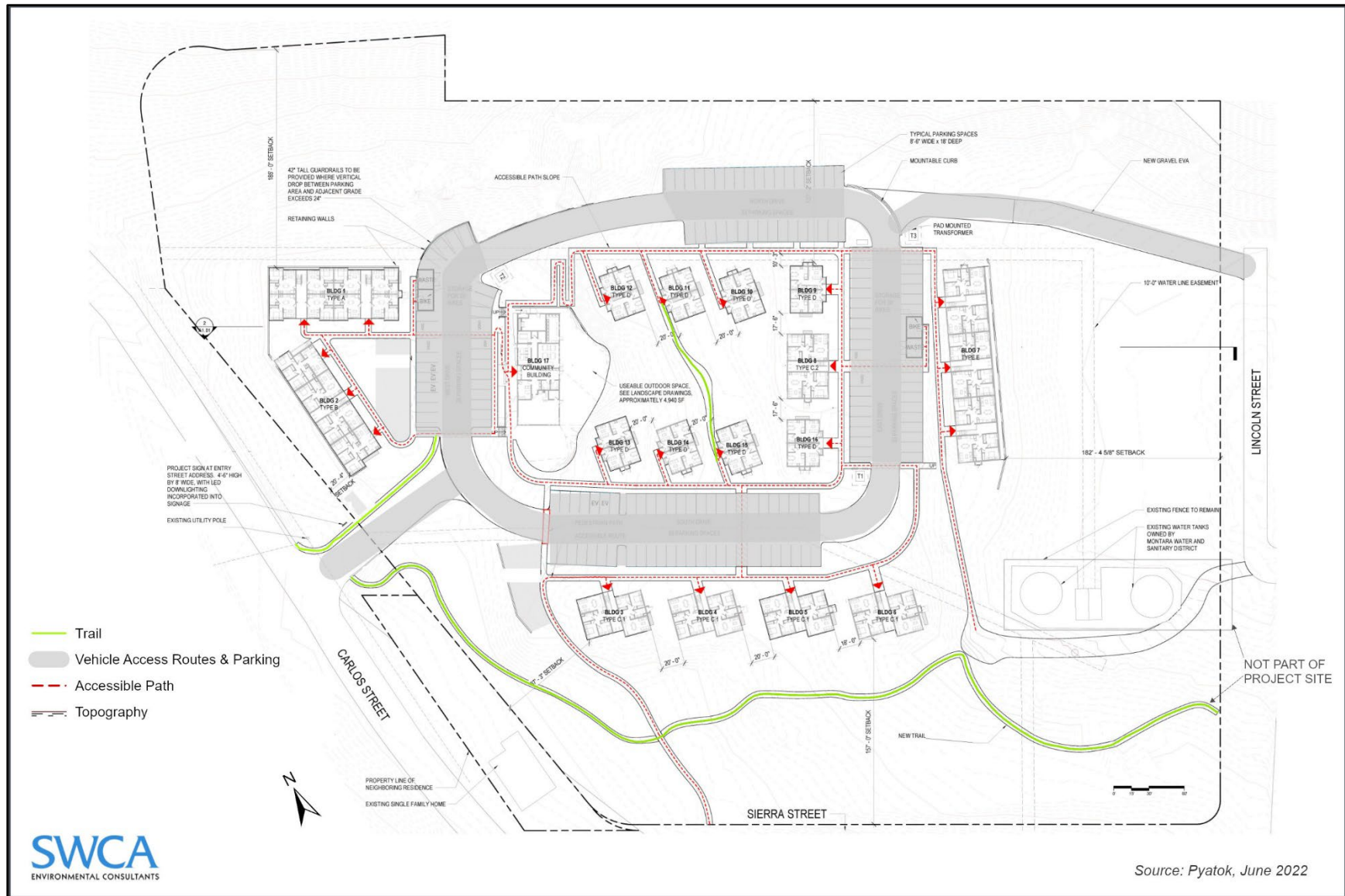


Figure 2.5-11. Site access and circulation.

2.5.6 Landscaping

The project proposes development of approximately 5 acres of the 11.02-acre site for the Cypress Point Housing Development. Thick vegetation covers the majority of the project site. The vegetation on-site is a variety of grassland, coastal scrub, and ruderal species. The project includes retention of vegetation adjacent to Carlos Street and Sierra Street along the perimeter of the site and the forested open space on the northern boundary of the site for project screening. The forested area along the northern boundary of the project site primarily contains Monterey cypress (*Cupressus macrocarpa*) and Monterey pine (*Pinus radiata*). The project would retain approximately 193 of the existing trees on the site and remove approximately 295 trees.²⁷ Of the 295 trees proposed to be removed, approximately 190 are considered Significant or Heritage.²⁸ Tree Protection Zones would be defined and marked prior to construction to protect each tree to be preserved during construction. The project would plant approximately 190 trees throughout the project site (see Figure 2.5-10). These trees would be caged for the first year to protect them from herbivores, and irrigated until established as evidenced by vigorous top growth in the spring. The project would replant disturbed slopes with native or low-water groundcover and shrubs, and/or seed them with red fescue and California poppy, for erosion control. Approximately 4,533 square feet of bioretention basins would be planted with water tolerant species.

In order to ensure the efficient use of water, the landscaping elements to be added to the site would be irrigated with a permanent automated irrigation system and include all parts compatible with a remote- or satellite-controlled system. Vegetation would be selected that is low maintenance, water conserving, native to the project site, or adapted for local conditions.

2.5.7 Utilities

2.5.7.1 Potable Water

The project site is served by the MWSD. The project would extend water lines to new project facilities for potable water and fire water supply, as well as for irrigation of landscaping. The proposed water line would extend from the existing MWSD tanks along the existing 10-foot ROW along the eastern and northern parts of the project. New domestic water and fire water lines would be located in the access loop and parking areas, with individual connections to each building.

2.5.7.2 Wastewater

The project construction includes the installation of new wastewater pipelines that connect the project site to the existing MWSD sewer lines on Carlos Street. These new wastewater pipelines would be located in the access loop and parking areas, with individual connections to each building. Construction of wastewater improvements would be routed to provide setbacks between new facilities and existing water and wastewater pipelines, and to avoid other existing utilities. The proposed wastewater connections and improvements would comply with Chapter 4.24, Sewer Connections, of the County Ordinance Code and Sanitary Sewer Standard Details and Specifications, in addition to the MWSD Code.

2.5.7.3 Stormwater

The project includes installation of a new connection to the existing storm drain main on Carlos Street, which ultimately outfalls to Montara Creek. Additional proposed stormwater infrastructure for the project

²⁷ MidPen. 2023a. *BIO-1 Response*. Data Request #2 Response. MidPen.

²⁸ HortScience | Bartlett Consulting. 2022. Arborist Report, Cypress Point. HortScience | Bartlett Consulting.

consists of new storm drain lines ranging in diameter from 12 inches to 21 inches, inlets at low points throughout the hardscape and landscape areas, access-holes at junction areas, building downspout connections, and cleanouts and bioretention basins designed to comply with the development’s dual requirements of stormwater treatment and hydromodification management (HM) requirements. Stormwater runoff on the project would be collected by overland flow to three stormwater bioretention basins in the western portion of the project site.

The project includes construction of approximately 3.29 acres (143,254 square feet) of impervious surface areas and anticipates utilizing bioretention areas as the main best management practice (BMP) treatment strategy for Municipal Regional Permit (MRP) and HM compliance (Figure 2.5-12). The project site is divided into four drainage management areas (DMAs) based on flow patterns. The required and provided bioretention area for each DMA is shown in Table 2.5-2. The new drainage stormwater system would transport stormwater runoff to three bioretention areas on the western portion of the site. The bioretention areas would be of sufficient size to contain peak flows from a 2-hour, 10-year storm event, as required by the MRP and HM.

Table 2.5-2. Drainage Management Areas

Drainage Management Areas	Total Area (square feet)	Impervious Area (square feet)	Pervious Area (square feet)	Bioretention Area Required (square feet)	Bioretention Area Provided (square feet)
DMA 1	111,973	64,093	45,529	2,150	2,351
DMA 2	109,233	73,263	33,988	1,950	1,982
DMA 3	8,188	4,902	3,086	161	200
DMA 4	19,652	996	18,656	0	0
Total	249,046	143,254	101,259	4,261	4,533

2.5.7.4 Refuse and Recycling

The project would include waste, recycling, and organics containers in two separate enclosures in the east and west parking areas (see Figure 2.5-1). In addition, the project would include the construction of a community garden with a compost area.

2.5.7.5 Electricity

Public utility lines would be extended throughout the site. The existing PG&E easement runs northeast-southwest diagonally along the southwest corner of the MWSD tanks and continues east along the proposed access loop. This easement would be abandoned, and the project would include a new 10-foot-wide easement following the driveway and parking areas, with individual electrical extensions to each building. Overhead utility lines would be trenched in open space areas and within the scenic corridor.

The project includes construction of solar panels on rooftops of all buildings which would fulfill the majority of the electricity demand for the project. The project would not include any natural gas appliances or heating.

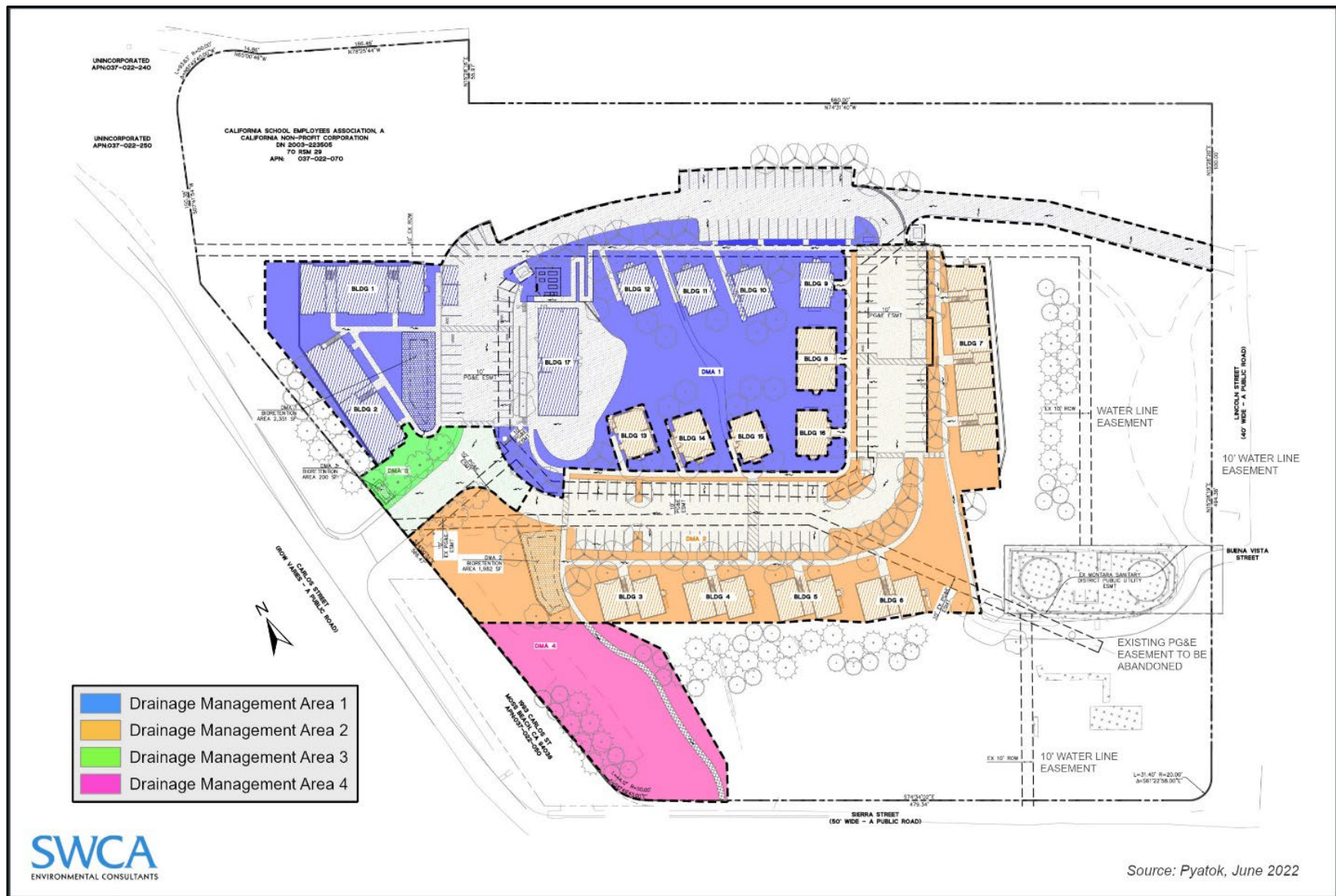


Figure 2.5-12. Drainage management areas.

2.5.8 Sustainability Features

The project includes installation of rooftop solar panels, water-efficient appliances, including high-efficiency washers with a water factor of 5 or less, toilets that use less than 1.6 gallons per flush in all residential units, and metering or self-closing faucets in all non-residential lavatories. The project's irrigation system would include an automatic weather-based controller, manual shut-off valves, matched precipitation rate sprinkler heads, a proper setback from non-permeable surfaces, and separate valves for different hydrozones. It would be designed to prevent runoff, low head drainage, and overspray.

2.5.9 Environmental Commitments from Project Sponsor

The project includes the following environmental commitments which the project sponsor, MidPen Housing Corporation has committed to:

1. **Defensible Space:** For wildfire protection, a 30-foot fire break area and a 100-foot reduced fuel zone surrounding the development would be implemented. This defensible space is required pursuant to San Mateo County's Local Hazard Mitigation Plan and PRC 4291.²⁹
2. **Construction Practices for Energy Conservation:** MidPen Housing Corporation (the project sponsor) has also committed to the following construction actions that would reduce the energy consumption from project construction.
 - Preserve a portion of the site as undeveloped land.
 - Make best efforts to use at least 10 percent local building materials.
 - Recycle or reuse at least 50 percent of construction waste or demolition materials.
3. **Operational Energy Saving Features:** The project shall be developed in accordance with the minimum requirements of one or more of the following programs to provide a framework for healthy, efficient, carbon and cost-saving green buildings: Leadership in Energy & Environmental Design (LEED); Green Communities; Passive Housing; Living Building Challenge; National Green Building Standard, or the GreenPoint Rated program.
4. **Transportation Demand Management (TDM):** The TDM strategies include measures that would promote transit or ridesharing education, bicycle amenities, and infrastructure improvements to support active transportation. MidPen has committed to the implementation of the following required and additional TDM measures identified in the City/County Association of Governments (C/CAG) TDM Checklist for a Residential (Multi-Family) Land Use: Small Project (see Appendix E.3):
 - Measure 2 – Orientation, Education, Promotional Programs and/or Materials (*Required*)
 - Measure 3 – TDM Coordinator/Contact Person (*Required*)
 - Measure 6 – Transit or Ridesharing Passes/Subsidies (*Required*)
 - Measure 8 – Secure Bicycle Storage (*Required*)
 - Measure 9 – Design Streets to Encourage Bike/Ped Access (*Required*)
 - Measure 11 – Family-Supportive Amenities (*Additional*)
 - Measure 22 – Active Transportation Subsidies (*Additional*)
 - Measure 23 – Gap Closure (*Additional*)
 - Measure 24 – Bike Repair Station (*Additional*)

²⁹ San Mateo County. 2021. Multijurisdictional Local Hazard Mitigation Plan. Prepared for County of San Mateo Department of Emergency Management. Available at: <https://www.smcgov.org/media/53471/download?inline=>. Accessed May 2023.

2.6 CONSTRUCTION

The project would disturb a total of 4.35 acres during construction. These construction activities would occur over an approximately 18-month period, in six phases. Construction activities are anticipated to commence in December 2024 and terminate in June 2026. These phases and associated durations are described in more detail in Table 2.6-1. Construction activities would generally occur Monday to Friday from 7:00 a.m. to 6:00 p.m. Weekend and off-hour work would be avoided.

In Phase I, Demolition, project construction would include removal of the existing impervious surface of approximately 1 acre which is equivalent to 20,840 cubic yards (CY).³⁰ Concrete foundations would be hauled to a recycling facility in Half Moon Bay. Approximately 295 trees would also be removed as part of this phase, and chipped and dispersed on-site.³¹

During Phase II, Site Preparation, project construction would include site clearing and leveling. Building materials would be transported to the site.

During Phase III, Grading, construction would include approximately 9,507 CY of cut, and approximately 9,881 CY fill. In total, the project would require 19,388 CY of grading. Approximately 7,381 CY of soil would be imported to the site, and no soil would be hauled off-site. The haul route would be from Highway 1 south to the project site via Carlos Street.

In Phase IV, Building Construction, work would include importation of building materials for residential buildings and the community building. An estimated 425 tons of waste and 85 haul trips would be required for all project buildings during this phase.³² All buildings would be constructed using slab-on-grade foundations. In total, the project would add approximately 3.29 acres (143,254 square feet) of impervious surface areas to the site. During this phase, roadway construction and utility work would be completed. This would include the digging of utility trenches, surveying, excavation, off-haul to subgrade and level base rock for building foundations. Hydrostatic testing, flushing, and watermain connections would be tested and connected.

During Phase V, Paving, would encompass the construction activities associated with paving including paving of on-site parking and roads, as well as on-site concrete work (curb, gutter, flatwork, etc.).

During Phase VI, Finishing, work would include finishing activities, architectural coatings, final landscaping, and removal of temporary fencing and erosion control paving of on-site parking and roads, as well as on-site concrete work (curb, gutter, flatwork, etc.).

Different construction phases would require varying numbers of construction personnel. There would be an average of 30 construction workers on the site per day, and up to 60 workers at peak times.³³ The estimated equipment, duration of work, and personnel requirements by construction activity are presented in Table 2.6-1.

The project includes various construction traffic control measures to avoid a substantial increase in construction-period traffic congestion. A Construction Traffic Control Plan would be submitted to the County Traffic Engineer prior to the start of construction and would include traffic control measures in

³⁰ MidPen. 2023b. 23_0504 SWCA Cypress Point EIR Data Request – additional responses. MidPen.

³¹ Illingworth and Rodkin. 2023. *Cypress Point Affordable Housing Project, San Mateo County, California (17-158) Noise Assessment Update of Proposed Tree Removal Activities*. May 19, 2023.

³² MidPen, 2023b.

³³ MidPen, 2023b.

order to ensure traffic safety during all construction phases. The traffic control devices may involve signage, use of delineators, flashing arrows, and/or temporary lane lines at the discretion of the County Traffic Engineer.

The Construction Traffic Control Plan would also include the following elements:

- Provisions for advanced notification (signage) of the proposed detour routes and coordination with emergency service providers.
- Identified locations for contractor parking on-site for the duration of the construction period so that parking does not affect the operation of local roads.
- Prohibition of construction truck trips to and from the site during peak traffic morning and afternoon peak hours for purposes of transporting cut and fill.
- In the event of lane closures due to deliveries, adequate number of flaggers and the appropriate signage to ensure the safe passage of vehicles, bicyclists, and pedestrians.

Table 2.6-1. Anticipated Construction Schedule, Trips, and Equipment

Phase (Duration)	Equipment Used			Daily Vehicle Trips
	Type	Number	Hours/Day	
1. Demolition 12/1/2024–1/17/2025 (35 working days)	Tractors/Loaders/Backhoes	5	8	40 one-way worker trips
	Concrete/Industrial Saws	2	8	6 one-way vendor trips
	Excavators	5	8	60 one-way haul truck trips 2 miles of on-site truck travel
2. Site Preparation 1/18/2025–2/15/2025 (20 working days)	Rubber-Tired Dozers	2	5	40 one-way worker trips 6 one-way vendor trips
	Tractors/Loaders/Backhoes	3	8	300 one-way haul truck trips 2 miles of on-site truck travel
3. Grading 2/16/2025–4/05/2025 (35 working days)	Scrapers	2	8	40 one-way worker trips
	Compactor	1	8	6 one-way vendor trips
	Dump/Tenders	1	8	18 one-way haul truck trips
	Off-Highway Truck	1	8	2 miles of on-site truck travel
	Graders	1	8	
4. Building Construction 3/1/2025–3/29/2026 (280 working days)	Rubber-Tired Dozers	1	8	
	Cranes	1	7	78 one-way worker trips
	Forklifts	3	8	8 one-way vendor trips
	Generator Sets	1	8	20 one-way haul truck trips
	Tractors/Loaders/Backhoes	3	7	3 miles of on-site truck travel
	Welders	1	8	

Phase (Duration)	Equipment Used			Daily Vehicle Trips
	Type	Number	Hours/Day	
5. Paving 3/2/2026–6/20/2026 (80 working days)	Pavers	3	8	40 one-way worker trips
	Tractors/Loaders/Backhoes	1	8	6 one-way vendor trips
	Rollers	2	8	2 one-way haul truck trips
	Grader	1	1	2 miles of on-site truck travel
	Off-Highway Truck	1	8	
	Scraper	1	1	
	Compactor	1	1	
6. Finalization 5/10/2026–6/20/2026 (30 working days)	Air Compressors	1	6	10 one-way worker trips 2 one-way vendor trips 0 one-way haul truck trips 1 mile of on-site truck travel

Notes: For the parameters that are not provided in the table (e.g., equipment horsepower and load factor, on-road trip lengths), CalEEMod defaults were used.

2.7 PROJECT APPROVALS (REQUESTED ACTIONS AND REQUIRED PERMITS)

Various permitting requirements would need to be met prior to implementation of the proposed project. Table 2.7-1 summarizes federal, state, and local permits that may be required for the project and the agencies that are expected to use the EIR in their decision-making and permitting processes.

Table 2.7-1. Agency Permit Requirements

Agency	Approval/Permit Required
County of San Mateo Planning and Building Department	Building Permits
County of San Mateo Planning and Building Department	Certificate of Occupancy
County of San Mateo Planning and Building Department	General Plan Amendment from Medium-High Density Residential to Medium Density Residential
County of San Mateo Planning and Building Department	CEQA Document Certification
County of San Mateo Planning and Building Department	Design Review
County of San Mateo Planning and Building Department	Coastal Development Permit
County of San Mateo Fire Department	Fire Code compliance
Bay Area Regional Water Quality Control Board	National Pollution Discharge Elimination System Permit with storm water pollution prevention plan
County of San Mateo Department of Environmental Health	Hazardous materials business plans
County of San Mateo Public Works Department, Engineering and Resource Protection Division	Plan check
County of San Mateo Public Works Department, Engineering and Resource Protection Division	Encroachment Permit
County of San Mateo Planning and Building Department	Grading Permit

CHAPTER 3. ENVIRONMENTAL IMPACTS ANALYSIS

IMPACT OVERVIEW

This chapter addresses the physical environmental effects of the Cypress Point Affordable Housing Community Project (proposed project) and project variants. This introduction presents the general format of the environmental analysis in each environmental topic section. It provides a general description of the approach to the project's analysis of environmental impacts, including cumulative projects that are considered in the cumulative impact analyses. This chapter also describes the existing environmental conditions of the 11.02-acre project site.

This environmental impact report (EIR), including the initial study (see EIR Appendix B), analyzes the physical environmental impacts associated with implementation of the proposed project. The analysis includes consideration of environmental impacts associated with both construction and operation of the proposed project, as appropriate for the particular resource topic.

SCOPE OF ANALYSIS

Initial Study Topics

The County of San Mateo (County) Planning and Building Department distributed a Notice of Preparation (NOP) of an EIR and Notice of Public Scoping Meeting on December 9, 2022, announcing its intent to prepare an EIR, including an initial study, and to solicit comments from the public about the scope of this EIR (the NOP is presented in EIR Appendix A). The initial study (see EIR Appendix B) determined that project-specific and cumulative impacts for certain resource topics would not require additional analysis in the EIR because the proposed project or project variants would have no impact, less-than-significant impact, or less-than-significant with mitigation incorporated impact (see Thresholds of Significance subsection below for definitions of the levels of significance). Additional analysis is not required for the following topics:

- Agriculture and Forestry Resources (all topics)
- Biological Resources (habitat conservation plans topic only)
- Cultural Resources (all topics)
- Energy (all topics)
- Geology and Soil (wastewater disposal topic only)
- Hazards and Hazardous Materials (schools and aviation-related topics only)
- Mineral Resources (all topics)
- Noise (aviation-related topics only)
- Population and Housing (all topics)
- Public Services (all topics)
- Recreation (all topics)
- Tribal Cultural Resources (all topics)

Refer to the initial study in EIR Appendix B for a discussion and the impact analysis of the proposed project or project variants concerning these resource topics.

Environmental Impact Report Topics

As determined and guided by findings of the initial study (see EIR Appendix B), the proposed project or project variants could result in potentially significant impacts in the following topic areas:

- Aesthetics (all topics)
- Air Quality (all topics)
- Biological Resources (all topics except habitat conservation plans)
- Geology and Soil (all topics except wastewater disposal)
- Greenhouse Gas Emissions and Climate Change (all topics)
- Hazards and Hazardous Materials (all topics except those related to schools and aviation)
- Hydrology and Water Quality (all topics)
- Land Use and Planning (all topics)
- Noise (all topics except those related to aviation)
- Public Services
- Transportation (all topics)
- Utilities and Service Systems (all topics)
- Wildfire (all topics)

These topics are analyzed in this chapter. Comments on the NOP submitted by mail and email and made at the public scoping meeting are briefly discussed in EIR Chapter 1, Introduction. The NOP comments related to the proposed project's physical environmental impacts were considered in preparing this analysis and are addressed under the relevant environmental topics in this chapter and Appendix A.

FORMAT OF ENVIRONMENTAL TOPIC SECTIONS

Each environmental topic considered in this chapter includes a discussion of the following:

- Existing Conditions
- Regulatory Setting
- Thresholds of Significance
- Impact Assessment and Methodology
- Impacts and Mitigation Measures
- Cumulative Impacts

An overview of the general organization and the information included in these sections is provided below.

Existing Conditions

This subsection describes the existing conditions at the project site and in the project site vicinity. As provided in the California Environmental Quality Act (CEQA) Guidelines Section 15125(a), existing conditions are generally defined as the physical environmental conditions that exist at the time an NOP is published, or if no NOP is published, at the time the environmental analysis is commenced. Thus, the existing conditions for the proposed project are the conditions present at the time the NOP was published on December 9, 2022. Existing conditions serve as the baseline physical setting for the project site and its surroundings at the beginning of the environmental review process (e.g., existing traffic conditions and noise environment). The analysis of environmental impacts is focused on adverse physical changes that could result from implementation of the proposed project, which is described in the Impacts and Mitigation Measures subsection for each topic.

Regulatory Setting

This subsection describes the relevant federal, state, and local regulatory requirements that are directly applicable to the environmental topic being analyzed. The overview of regulations for each environmental topic is organized by agency including applicable federal, state, regional, and local (county) policies. The County General Plan policies, goals, and actions relevant to each environmental topic are detailed in this subsection.

Thresholds of Significance

This subsection begins with a description of the significance criteria. The thresholds used to evaluate each environmental topic are based on the County of San Mateo Initial Study Checklist Appendix G of the State CEQA Guidelines. All impacts in the EIR have been classified according to the following criteria:

No Impact: No adverse physical changes (or impacts) to the environment are expected.

Less than Significant: Impact that would not exceed the defined significance criteria or would be eliminated or reduced to a less-than-significant level through compliance with existing local, state, and federal laws and regulations.

Less than Significant with Mitigation: Impact that is significant but reduced to a less-than-significant level through implementation of the identified mitigation measure(s).

Significant and Unavoidable: Impact that exceeds the defined significance criteria and cannot be eliminated or reduced to a less-than-significant level through compliance with existing local, state, and federal laws and regulations and for which there are no feasible mitigation measures.

The term *significance* is used throughout the EIR to characterize the magnitude of the projected impact. For this EIR, a significant impact is a substantial or potentially substantial change to resources in the project site or the area adjacent to the project. In the discussions of each issue area, thresholds are identified that are used to distinguish between significant, less than significant with mitigation, less than significant, and no impacts.

Impacts and Mitigation Measures

Impacts are numbered and shown in bold, italics type; the corresponding mitigation measures are also numbered; and the significance after mitigation is identified for each significant impact. The Impact

Assessment and Methodology subsection explains the parameters, assumptions, and data used in the analysis.

This subsection describes the physical environmental impacts (i.e., the changes to baseline physical environmental conditions) that could result from implementation of the proposed project, as well as any mitigation measures that could avoid, eliminate, or reduce identified significant impacts. Where applicable, both construction and operational impacts are analyzed, as well as project-specific and cumulative impacts. This section begins with a listing of the significance criteria as “Thresholds of Significance” used by the County Planning and Building Department to determine whether an impact is significant.

Under the Impacts and Mitigation Measures subsection, each project-level impact begins with an impact statement that reflects one or more of the applicable significance criteria. Some significance criteria may be combined in a single impact statement, if appropriate. Each impact statement is identified by a subject area abbreviation (e.g., NO for Noise and Vibration) and an impact number (e.g., 1, 2, 3) for a combined alpha-numeric code (e.g., Impact NO-1, Impact NO-2).

CEQA Guidelines Section 15126.4 directs preparers of an EIR to describe feasible measures that could minimize significant adverse impacts. Mitigation measures are developed to avoid, minimize, rectify, reduce, or eliminate an impact or compensate for an impact resulting from project implementation. CEQA Guidelines Section 15041 grants authority to the lead agency to require feasible changes in any or all activities involved in a project to substantially lessen or avoid significant effects on the environment. Feasible mitigation measures have been included in this chapter for specific environmental impacts where applicable.

When potentially significant impacts are identified, mitigation measures are presented that would avoid, eliminate, or reduce significant adverse impacts of the project. All mitigation measures are required as conditions of project approval. Each mitigation measure has the same coding as the impact statement to which it corresponds, with an “MM” in front of the code to signify it is a mitigation measure (e.g., mitigation measure MM-AQ-1 corresponds to impact AQ-1). If there is more than one mitigation measure for the same impact statement, the mitigation measures are numbered with a lowercase letter suffix (e.g., mitigation measures MM-CR-1a and MM-CR-1b). When identified mitigation measures do not reduce the impact to a less-than-significant level, CEQA requires the development of a range of feasible project alternatives to address the significant and unavoidable impact.

Improvement measures are recommended actions, agreed to by the project applicant, which would reduce or avoid impacts found to be less than significant. Identification of improvement measures is not required under CEQA, but they are often presented in environmental documents to inform decision-makers of additional actions that could improve the proposed project by reducing the magnitude of less-than-significant effects. Improvement measures are designated with an “I” to signify “improvement measure,” the topic code, and a letter (e.g., improvement measures I-TR-A, I-TR-B).

APPROACH TO CUMULATIVE IMPACT ANALYSIS

The CEQA Guidelines require that an EIR discuss the cumulative impacts of a project. CEQA Guidelines Section 15355 defines cumulative impacts as follows:

“Cumulative Impacts” refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or number of separate projects.

The cumulative impact from several projects is the change in the environment which results from

the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

The discussion of cumulative impacts should reflect the severity of impact and their likelihood of occurrence, but the discussion need not provide as much detail as provided for effects attributable to the project alone (CEQA Guidelines Section 15130 (b)). The discussion should be guided by the standards of practicality and reasonableness and should focus on the cumulative impacts to which the identified other projects contribute, rather than the attributes of other projects which do not contribute to the cumulative impact.

This EIR, including the initial study, discusses the cumulative impacts analyzed for each environmental resource topic and the proposed project's contribution to these cumulative impacts, if any. Two approaches to a cumulative impact analysis are provided in CEQA Guidelines Section 15130(b)(1): (a) "the analysis can be based on a list of cumulative projects producing closely related impacts that could combine with those of a project;" or (b) "a summary of projections contained in a general plan or related planning document can be used to determine cumulative impacts." A list-based approach refers to "a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside of the control of the agency" (CEQA Guidelines Section 15130(b)(1)(A)). A projections-based approach refers to "a summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions" (CEQA Guidelines Section 15130(b)(1)(B)).

The analysis of cumulative impacts by environmental resource topic involves:

1. determining the cumulative context or geographic scope and location of the cumulative projects relative to the affected resource's setting;
2. assessing the potential for project impacts to combine with those of other projects, including the consideration of the nature of the impacts and the timing and duration of implementation of the proposed and cumulative projects;
3. determining the significance of the cumulative impact; and
4. assessing whether the project's contribution to a significant cumulative effect is considerable.

CEQA does not prescribe the use of one specific approach to analyzing cumulative impacts. The rationale used to determine an appropriate list of projects considered in an individual project's cumulative analysis is explained in the discussion of cumulative impacts for each environmental topic in this EIR.

Cumulative impacts are presented in a separate subsection following each topic's project-level impact analysis. Cumulative impact statements are numbered consecutively with a combined alpha-numeric code that starts with "C" to signify it as a cumulative impact. For example, C-TR-1 refers to the first cumulative impact for Transportation and Circulation.

Projects Included in Cumulative Conditions Scenario

Table 3-1 presents a list of cumulative projects located within a 0.25-mile radius of the project site. These projects are considered in the various cumulative analyses for environmental resource topics that use a list-based approach to determine, for example, the potential for impacts to combine based on the distance

from the project site and construction timelines, as available. These projects' locations are shown in Figure 3-1.

In addition to the development projects identified in Table 3-1, the following transportation project is considered part of the cumulative setting:

- **Caltrans State Route 1 Multi-Asset Roadway Rehabilitation Project.** This project is currently approved, with construction scheduled to begin in October 2024. Note that the October 2024 construction start date is before construction of the proposed project would begin. As of July 2023, San Mateo County has not received a CDP Application for this project. Much of the project is expected to be exempt from CDP permit requirements.

Other active projects in the project vicinity consist of minor modifications to existing buildings and residences, such as window replacements, installation of rooftop solar collection systems, and single-family home renovations. Given their minor scope, they would not combine with the proposed project in a way that could result in any cumulative impacts; therefore, they are not included in the cumulative context for any topic in the EIR.

Table 3-1. Cumulative Projects

Project	Map No. (Figure 3-1)	Residential Units	Lot Size	Commercial (square feet)	Distance from Project Site	Vehicle Parking Spaces	Height	Status as of July 2023
Etheldore Apartments 2385 Carlos Street Moss Beach (PLN2019-00143) ³⁴	1	8	0.47 acres 20,851 square feet	3,550 square feet residential	2,100 feet southeast	30	2 stories 36 feet	Proposed pre- application workshop held February 2020.
Big Wave North Parcel Alternative Project 350 Airport Street Half Moon Bay (PLN2013-00451) ³⁵	2	57 bedrooms 70,500 square feet	19.4 acres 845,064 square feet	5 buildings/ 189,000 square feet	2 miles south	554	2 stories 36.5 feet	Environmental review completed 2015.
Harbor Village RV Park 240 Capistrano Road Half Moon Bay (PLN2017-00320) ³⁶	3	–	3.36 acres 146,362 square feet	869 square feet	2.7 miles south	47	–	Building permit issued in November 2022.
Hyatt Hotel Expansion (Alternative 2) 1191 and 1200 Main Street Half Moon Bay ³⁷	4	102 hotel rooms 65,574 square feet	5 acres 217,800 square feet (1191 Main Street) 1.45 acres (1200 Main Street) 1.25-acre parcel on the northeast corner of State Route 1 (Seymour Street)	1,210-square- foot meeting room space	7.4 miles south	108	2 stories	Environmental review is in progress. Draft EIR public review ended September 2022.

³⁴ County of San Mateo. 2020. Etheldore Apartments Plan Set. Edward C. Love, Architect. Available at: <https://www.smcgov.org/media/104301/download?inline=1>. Accessed April 20, 2023.

³⁵ County of San Mateo. 2023. Big Wave North Parcel Alternative Project. Available at: <https://www.smcgov.org/planning/big-wave-north-parcel-alternative-project>. Accessed April 20, 2023.

³⁶ County of San Mateo. 2023. Mitigated Negative Declaration for Harbor Village RV Park at 240 Capistrano Rd, Princeton. Available at: <https://www.smcgov.org/planning/mitigated-negative-declaration-harbor-village-rv-park-240-capistrano-rd-princeton>. Accessed April 20, 2023.

³⁷ The City of Half Moon Bay California. 2022. Project Proposal for Hyatt. Updated September 2022. Available at: <https://www.half-moon-bay.ca.us/652/Project-Proposal-for-Hyatt>. Accessed April 20, 2023.

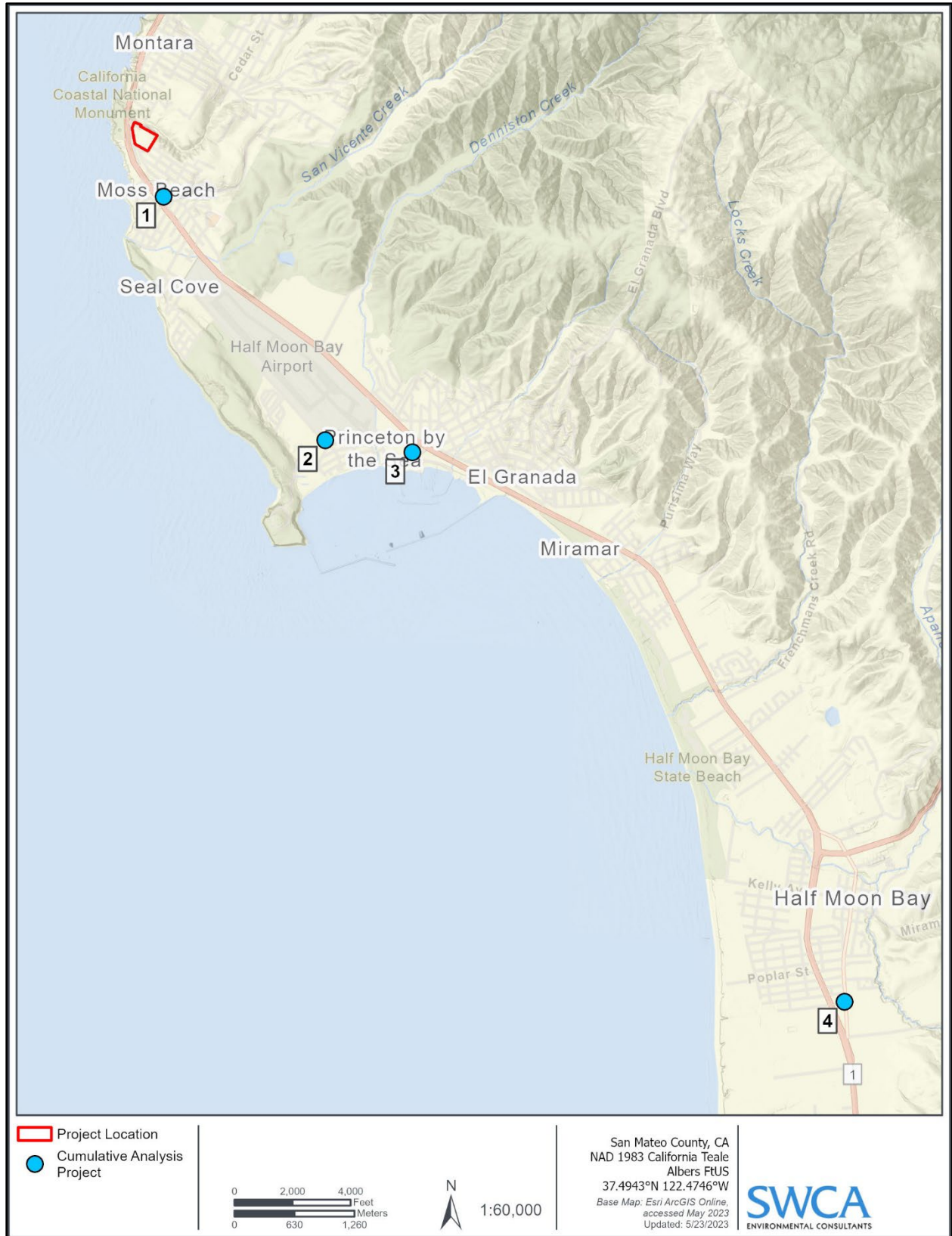


Figure 3-1. Cumulative projects.

3.1 AESTHETICS

Section 3.1 describes the potential impacts to visual character of the project site and its surroundings with development of the proposed project. Potential effects are evaluated relative to important visual features (e.g., scenic highways, scenic features) and the existing visual landscape and its users. Degradation of the visual character of a site is usually addressed through a qualitative evaluation of the changes to the aesthetic characteristics of the existing environment, and the project-related modifications that would alter the visual setting. This section includes information from the *Cypress Point Project, Aesthetics and Visual Resources Report* completed by Stevens Consulting, August 2020.³⁸

3.1.1 Existing Conditions

This section discusses the existing visual character of the project site and its surroundings.

3.1.1.1 Visual Setting

The San Mateo County coast is characterized by “a wide variety of colorful vegetation, richly textured rolling hills, soaring mountains and many dramatic, often magnificent views.”³⁹ Seventy-four percent of County of San Mateo (County) land, primarily in the area west of Interstate 280 (I-280), is in agricultural, watershed, open space, wetlands, or parks use. The Pacific Ocean, sea cliffs and beaches, abundant natural resources, rolling green foothills, stands of old redwoods, and creeks characterize western San Mateo County, providing many areas with high visual quality.

The area in the vicinity of the project site is characterized by hillsides covered with stands of Monterey cypress (*Cupressus macrocarpa*), and Monterey pine (*Pinus radiata*); buildings, including single-family residences; Montara Water and Sanitary District (MSWD) facilities; and the Point Montara Lighthouse and Hostel; as well as glimpses of coastline and the Pacific Ocean. Montara Creek lies north of and adjacent to the project site and passes under Highway 1 approximately 480 feet north of its intersection with Carlos Street. Farther to the north are the residential areas of Montara, and to the south and east are residential and commercial areas of Moss Beach.

The area of Montara–Moss Beach–El Granada is identified in the County General Plan as an urban community. This coastal community includes views of ocean, rocky hills, dense stands of mature eucalyptus trees and a sloped terrain and is “an extremely scenic area.”⁴⁰ Housing styles in this area are architecturally diverse and range from single-family ranch and bungalow styles to very modern styles. There are various exterior construction materials and colors.

The project site is on a raised bluff above the Pacific Ocean at the northern end of the community of Moss Beach. The project site is composed of a somewhat hilly parcel with an elevation ranging from approximately 95 to 205 feet above mean sea level (amsl). Along the northern side of the site there is a moderately steep north-facing slope down to Montara Creek. There are localized flat areas near the central and eastern portions of the site which contain concrete foundations from previous development. The site is currently vegetated with dense trees and forest (primarily Monterey pine and Monterey cypress), nonnative grassland, and scrub (Figure 3.1-1).

³⁸ Stevens Consulting. 2020. *Cypress Point Project, Aesthetics and Visual Resources Report*. Stevens Consulting. August 2020.

³⁹ County of San Mateo. 1986. General Plan. Available at: <https://www.smcgov.org/planning/general-plan>. Accessed May 22, 2023.

⁴⁰ County of San Mateo, 1986.



Figure 3.1-1. Existing conditions on project site.

3.1.1.2 Visual Character

3.1.1.2.1 SCENIC HIGHWAYS

Scenic highways may be designated by the state or by local governments. Scenic corridors are defined as “the visual boundaries of the landscape abutting a scenic highway, and which contain outstanding views, flora, and geology, and other unique natural or man-made attributes and historical and cultural resources affording pleasure and instruction to the highway traveler.”⁴¹

The project site is approximately 170 feet northeast of Highway 1 (Cabrillo Highway) at its closest point. Highway 1 is a state-eligible scenic highway from the southern border of the city of Half Moon Bay through the intersection with Highway 280 in Daly City.⁴² In addition, Highway 1 is a designated County Scenic Highway from the northern border of the city of Half Moon Bay to the border of the city of Pacifica. The western one-third of the project site is located in the Cabrillo Highway County Scenic Corridor that extends from the northern border of the city of Half Moon Bay through the Devil’s Slide area to San Pedro Point and the southern border of the city of Pacifica (Figure 3.1-2).⁴³

Highway 1 in the vicinity of the project site runs through an embankment, the sides of which obstruct views on either side. Highway 1 is at an altitude of approximately 90 feet amsl. The project site in the vicinity of Highway 1 is at an altitude of approximately 126 feet amsl, approximately 35 feet higher than Highway 1. Views of the project site from Highway are obstructed by both embankments and trees (Figure 3.1-3).

3.1.1.2.2 SCENIC VISTAS

While the County General Plan and the County Local Coastal Program (LCP) do not define or identify scenic vistas, “scenic vistas” are generally defined as high-quality views displaying good aesthetic and compositional value that can be seen from public viewpoints and possess visual qualities of high value to a community. If the project substantially degrades the scenic landscape as viewed from public roads, or along particularly designated scenic routes, or from other public or recreation areas, this would be considered a potentially significant impact on the scenic vista.

The primary visual resources contributing to scenic vistas in the project vicinity are the Pacific Ocean, approximately 700 feet west of the project site; the Montara Creek riparian corridor, approximately 200 feet northeast of the project site; the coastal hills including Montara Mountain, approximately 1.75 miles northeast of the project site; and Devil’s Slide, approximately 1.5 miles north of the project site. However, at several vantage points in the project vicinity, various surrounding topographic characteristics partially obstruct these vistas. Other visual resources along the Highway 1 corridor that contribute to scenic vistas often include views of the Pacific Ocean, the beach and shoreline, bluffs and cliffs including Devil’s Slide, mature trees and other native vegetation, agricultural fields, and the hillsides and ridges inland from Highway 1 (see Figure 3.1-3).

⁴¹ County of San Mateo. 2013. *Local Coastal Program Policies*. Chapter 8: Visual Resources. Available at: <https://www.smcgov.org/planning/local-coastal-program#>. Accessed April 6, 2023.

⁴² California Department of Transportation. 2023. Scenic Highways. Available at: <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>. Accessed January 23, 2023.

⁴³ County of San Mateo. 2023. San Mateo County Scenic Corridors. Available at: <https://www.smcgov.org/planning/san-mateo-county-scenic-corridors>. Accessed January 23, 2023.

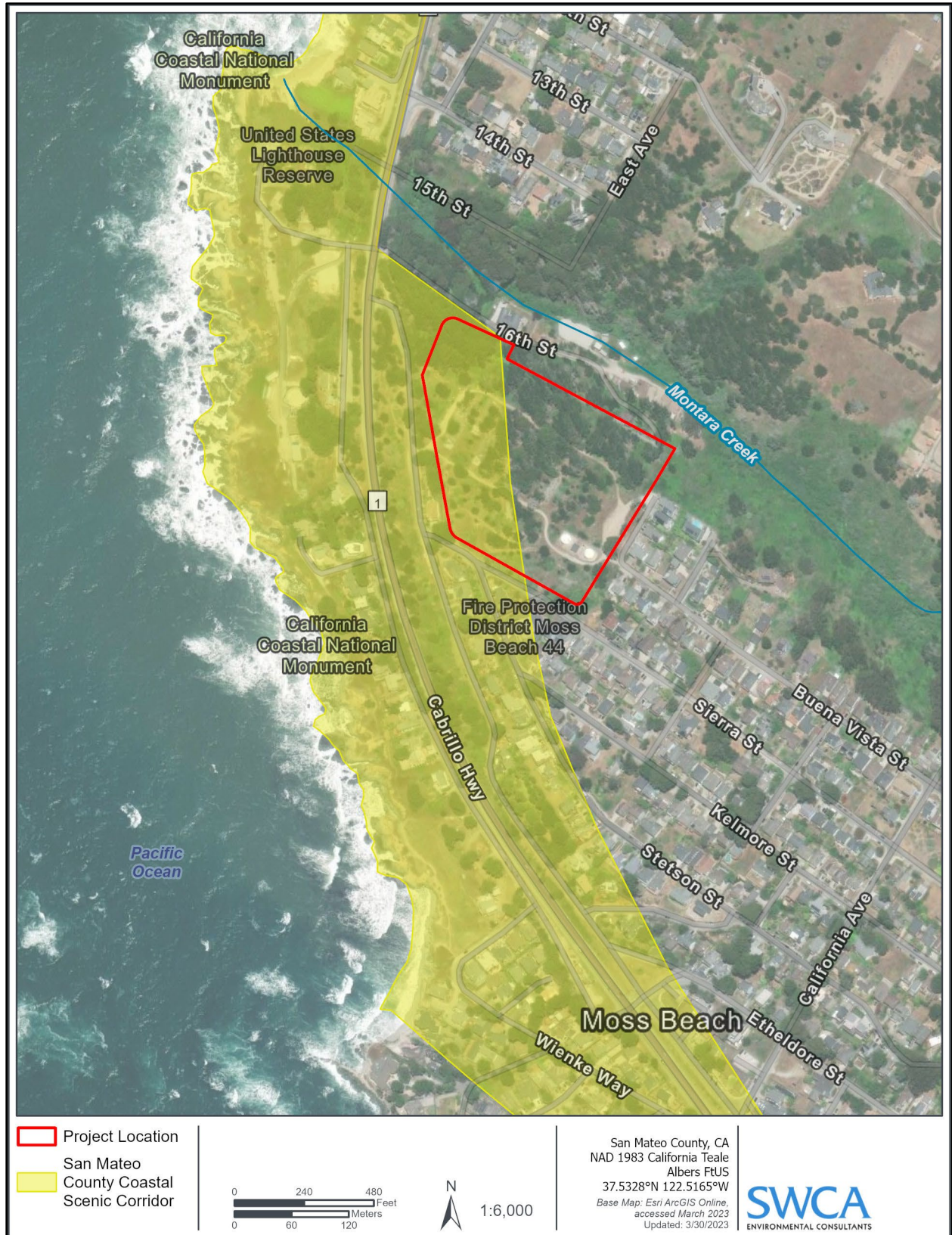


Figure 3.1-2. Highway 1 Scenic Corridor.



Figure 6a: Highway 1 & Carlos St.



Figure 6b: Highway 1



Figure 6c: Highway 1



View Context Key

Stevens Consulting, July 2020
Stevens Consulting

Figure 6
Highway 1 - Existing Visual Conditions
San Mateo County, CA

Figure 3.1-3. Highway 1 existing visual conditions.

The project site is located in a hilly area, the higher portion of which provides scenic vistas encompassing the ravine containing Montara Creek to the north, and the forested hills and ridgelines of the Coast Hills, including Montara Mountain and Devils Slide towards the north, and the Pacific Ocean towards the west. Many of the residences east and south of the site along Lincoln and Sierra Streets are oriented to the Pacific Ocean and feature decks and large windows to capture the view of the ocean. The project site is located west of Lincoln Street, between Lincoln Street and the Pacific Ocean, and south of Sierra Street.

The site is not visible from the MSWD driveway and parking lot located on the west side of Highway 1. This graveled driveway is also elevated above Highway 1. It is adjacent to the Point Montara Lighthouse Hostel and is used by hikers and dogwalkers as an unofficial part of the California Coastal Trail.

The County General Plan defines ridgelines as: “the tops of hills or hillocks normally viewed against background of other hills.” Meanwhile, skylines are defined as: “the line where sky and land masses meet.” Views to the east from portions of the project site include both ridgelines and skylines, but views from most of the site do not include these features, due to the presence of slopes and vegetation. The project site is lower in elevation when viewed from Lincoln Street and would not appear as a ridgeline or skyline to residences along Sierra Street south and east of the project. For viewers south of the project on Sierra Street, the project site would appear at a higher elevation; however, the site would not qualify as either a ridgeline or skyline.

3.1.1.2.3 SCENIC RESOURCES

In general, scenic resources are thought of as objects, natural or human-made, that are aesthetically pleasing to view (i.e., trees, rock outcroppings, and historic buildings within a State Scenic Highway). There are no rock outcroppings or historical structures located within or adjacent to the project site.

According to the County General Plan, visual resources are defined as: “those attractive visible elements of the natural and developed landscape, such as landforms, defined as: ‘land adjacent to a scenic road right-of-way which, when seen from the road, provides outstanding views of natural landscapes and attractive man-made development.’” As further defined by the County General Plan, a scenic roadway is: “a designated travel route providing outstanding views of natural landscapes and attractive man-made development.” The General Plan has designated several “scenic” roadways within San Mateo County.

Highway 1 is a County-designated scenic highway from Junipero Serra Freeway (Highway 280) to the northern limits of the city of Half Moon Bay and the project site is partially located within the Cabrillo Highway County Scenic Corridor. The portion of Highway 1 adjacent to the project site is not a state-designated scenic roadway but is eligible for such designation.⁴⁴

3.1.1.2.4 EXISTING PROJECT SITE

The site is adjacent to an existing residential neighborhood, with single-family houses located to the east and south of the site. To the north is a steeply sloped wooded area leading to 16th Street and the ravine containing Montara Creek. To the west, across Carlos Street, is a steeply sloped embankment down to Highway 1. The Highway 1 corridor in the project vicinity is characterized by extensive evergreen vegetation and a substantial change in grade between the highway and the project site. The project would also be visible from a portion of the California Coastal Trail and the Montara Lighthouse Hostel.

⁴⁴ California Department of Transportation. 2019. California State Scenic Highway System Map. Available at: <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacc>. Accessed May 5, 2023.

The site is bounded by Carlos Street on the west, the Montara Creek canyon and 16th Street on the north, Lincoln Street on the east, and Sierra Street on the south. Except for a single residence at the northeast corner of Carlos Street and Sierra Street, there are no developed uses immediately adjacent to Carlos Street in the project vicinity (see Figure 2.2-2 in Chapter 2, Project Description). Beyond the wooded area to the north of the site are a few rural homes, and then another wooded area that separates this area from the developed community of Montara further to the north. Other than several rural residences, the ravine containing Montara Creek is undeveloped to the north and east of the site. Developed uses north of the project site include 16th Street and several rural, large-lot single-family residences. Residences along 16th Street are located at a substantially lower elevation within the canyon than the area of the project site to be developed, and dense vegetation between the project site and 16th Street provides additional visual screening of the site. Several residences are located to the east of Lincoln Street and at the base of Buena Vista Street, east of the project site. These residences are located at approximately the same elevation as the site's eastern boundary. Several residences with views of the project site are located south of Sierra Street. Additional residences with potential views of the site are located along the north and south sides of Sierra Street from the eastern project boundary to its intersection with Pearl Street, and along Buena Vista Street from Lincoln Street to slightly east of Montana Street. For most of the identified residences on Sierra Street and Buena Vista Street, intervening residences and vegetation obstruct views of the site.

Existing screening vegetation characterized by shrubs and trees is present on the site along its Carlos Street frontage, and along the slope down the Montara Creek canyon. Additional screening vegetation is present along and within the eastern area of the site west of Lincoln Street, and intermittently along the Sierra Street frontage.

Changes in grade and vegetation between the project site and residences along its Sierra Street frontage hinder direct views of the site, and these views are further impaired by intermittent vegetation.

3.1.1.2.5 LIGHT AND GLARE

Light spill is the exposure of properties adjacent to a project site to unwanted and/or misdirected light from project-related illumination. Light spill can emanate from the interior of structures through windows or from exterior sources, such as street lighting, security lighting, and landscape lighting.

Perceived glare is an unwanted and potentially objectionable sensation experienced by a person when looking directly into the light source of a lighting fixture, or from sunlight reflection off flat building surfaces, with glass typically having the highest degree of reflectivity.

The only existing sources of light and glare on the proposed project site are lights associated with the Montara Water and Sewer District (MWSD) storage tanks, which would remain undisturbed as part of the project; the remainder of the site is currently undeveloped and does not create light or glare sources. Existing residential development is located to the southeast, south, and southwest of the project site, which does produce some light at night. Other sources of light or glare within the vicinity of the project site are from the headlights or windshields of vehicles on adjacent roads.

3.1.2 Regulatory Setting

3.1.2.1 Federal

There are no applicable federal regulations for the proposed project.

3.1.2.2 State

3.1.2.2.1 CALIFORNIA COASTAL ACT (1976)

Article 6: Development, Section 30251 of the California Coastal Act states that:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

3.1.2.3 Local

3.1.2.3.1 COUNTY OF SAN MATEO GENERAL PLAN (1986)

The following County General Plan (1986) policies and goals are relevant to the project:

Visual Quality

- **Goal 4.1a:** Protect and enhance the natural visual quality of San Mateo County.
- **Goal 4.1b:** Encourage positive visual quality for all development and minimize adverse visual impacts.
- **Goal 4.3:** Minimize the removal of visually significant trees and vegetation to accommodate structural development.
- **Policy 4.4:** Promote aesthetically pleasing development in rural and urban areas.
- **Policy 4.15:** Regulate development to promote and enhance good design, site relationships and other aesthetic considerations.
- **Policy 4.22:** Protect and enhance the visual quality of scenic corridors by managing the location and appearance of structural development.
- **Policy 4.29(a):** Preserve trees and natural vegetation except where removal is required for approved development or safety.
- **Policy 4.29b:** Replace vegetation and trees removed during construction wherever possible. Use native plant materials or vegetation compatible with the surrounding vegetation, climate, soil, ecological characteristics of the region and acceptable to the California Department of Forestry.
- **Policy 4.30(a):** Provide a smooth transition between development and adjacent forested or open space areas through the use of landscaping.
- **Policy 4.36a:** Maintain and, where possible, improve upon the appearance and visual character of development in urban areas.
- **Policy 4.36b:** Ensure that new development in urban areas is designed and constructed to contribute to the orderly and harmonious development of the locality.

- **Policy 4.47:** Institute special controls to regulate both site and architectural design of structures located within rural scenic corridors in order to protect and enhance the visual quality of select rural landscapes.
- **Policy 4.57(a):** Allow the removal of trees and natural vegetation when done in accordance with existing regulations.
- **Policy 4.57(b):** Prohibit the removal of more than 50% of the tree coverage except as allowed by permit.
- **Policy 4.60:** Minimize exterior lighting in scenic corridors and, where used, employ warm colors rather than cool tones and shield the scenic corridor from glare.
- **Policy 4.61(a):** Design and construct new roads, road improvements and driveways to be sensitive to the visual qualities and character of the scenic corridor, including such factors as width, alignment, grade, slope, grading and drainage facilities.
- **Policy 4.61(b):** Limit number of access roads connecting to a scenic road to the greatest extent possible.
- **Policy 4.61(c):** Share driveways where possible to reduce the number of entries onto scenic roads.
- **Policy 4.62:** Integrate paved areas with their site and landscape and/or screen them to reduce visual impact from the scenic corridor.
- **Policy 4.63:** Screen areas used for the storage of equipment, supplies or debris by fencing, landscaping or other means so they are not visible from scenic roadways, trails, parks, and neighborhoods.
- **Policy 4.64(a):** Install new distribution lines underground.
- **Policy 4.64(b):** Consider exceptions for certain circumstances including, but not limited to, financial hardship, topographic conditions or land use conflicts.

3.1.2.3.2 COUNTY OF SAN MATEO MIDCOAST LOCAL COASTAL PROGRAM (2013)

County policy states that “Public views within and from Scenic Corridors shall be protected and enhanced, and development shall not be allowed to significantly obscure, detract from, or negatively affect the quality of these views. Vegetative screening or setbacks may be used to mitigate such impacts. Development visible from Scenic Corridors shall be so located and designed as to minimize interference with ridgeline silhouettes.”⁴⁵

The following LCP (2014) policies and goals are relevant to the project:

- **Policy 8.5(a):** On lots bigger than 20,000 square feet require that new development be located on a portion of the parcel where the development is (1) least visible from State and County Scenic Roads and (2) least likely to significantly impact views from public viewpoints. Public viewpoints include but are not limited to coastal roads, roadside rests and vista points, recreation areas, trails, coastal accessways, and beaches.
- **Policy 8.5(b):** Require, including by clustering if necessary, that new parcels have building sites that are not visible from State and County Scenic Roads and will not significantly impact views

⁴⁵ County of San Mateo, 2023.

from other public viewpoints. If the entire property being subdivided is visible from State and County Scenic Roads or other public viewpoints, then require that new parcels have building sites that minimize visibility from those roads and other public viewpoints.

- **Policy 8.9(a-g):** Locate and design new development to minimize tree removal. Employ regulations of the Significant Tree Ordinance and Heritage Tree Ordinance to protect trees which meet the requirements of each. In addition, protect trees which are specifically selected for their visual prominence and their importance scenic qualities. Prohibit removal of trees in scenic corridors. Allow the removal of trees which are a threat to public health, safety and welfare.
- **Policy 8.10.** Replace vegetation removed during construction with plant materials compatible to surrounding vegetation and suitable to climate, soil, and ecological characteristics of the area.
- **Policy 8.12 (a)(2).** Apply the Design Review Zoning District, specifically design standards contained in Section 6565.17 and the design criteria set forth in the Community Design Manual.
- **Policy 8.13(a).** (1) Design structures that fit the topography of the site and do not require extensive cutting, grading or filling. (2) Employ the use of natural materials and colors that blend with the surroundings. (3) Use pitched roofs that are non-reflective (with the exception of solar panels). (4) Design structures that are in scale with their setting. (5) To the extent feasible, design development to minimize blocking views to or along the shoreline.
- **Policy 8.18(a).** Require that development (1) blend with and be subordinate to the environment and the character of the area where located, and (2) be as unobtrusive as possible and not detract from the natural, open space or visual qualities of the area including, but not limited to, siting, design, layout, size, height, shape, materials, colors, access and landscaping.

The colors of exterior materials shall harmonize with the predominant earth and vegetative colors of the site. Materials and colors shall absorb light and minimize reflection. Exterior lighting shall be limited to the minimum necessary for safety. All lighting, exterior and interior, must be placed, designed and shielded so as to confine direct rays to the parcel where the lighting is located.

- **Policy 8.30** designates Coast Highway 1 north of Half Moon Bay as a County Scenic Road/Corridor.
- **Policy 8.32** defines regulations for Scenic Corridors in Urban Areas. This policy includes
 - Apply the regulations of the Design Review Zoning Ordinance,
 - Apply the Design Criteria of the Community Design Manual, and
 - Apply specific design guidelines for Moss Beach as set forth in the Urban Design Policies of the GP.

3.1.2.3.3 COUNTY OF SAN MATEO COMMUNITY DESIGN MANUAL (1976)

The County Community Design Manual⁴⁶ contains the following relevant goals and policies.

Structures and accessory structures should be located, designed, and constructed to retain and blend with the natural vegetation and natural land forms of the site (i.e., topography, rock outcroppings, ridgelines, tree masses, etc.), and should be complementary to adjacent neighborhood structures.

⁴⁶ County of San Mateo. 1976. *Community Design Manual*. Available at: <https://www.smcgov.org/planning/community-design-manual>. Accessed April 6, 2023.

Vegetation Preservation

- Structures should blend with the natural vegetative cover of the site and only that vegetation should be removed which is necessary for the construction of the structure;
- Structures should be designed around major trees or tree stands.

Landscaping

- Landscaping material should have an informal character and should provide a smooth transition between the development and adjacent open space areas;
- Only tree and plant materials native to the area should be used to assure against nonnative plant intrusion to reduce irrigation and maintenance requirements, and to minimize visual impact.

View Preservation

- Views should be preserved by limiting structure height. Introduced vegetation should be located so as to not block views from uphill structures or views from scenic corridors and vista points;
- Public views within and from scenic corridors should be protected and enhanced, and development should not be allowed to significantly obscure, detract from, or negatively affect the quality of these views. Visual screening or increased setbacks may be used to mitigate such impacts;
- Structures should be located to retain views of prominent scenic features, i.e., bodies of water, mountains, valleys, etc.

Open Space Preservation

- Structures should be sited to retain maximum open space and to reduce the visual impact in scenic open space areas;
- Where possible, structures should be clustered near existing natural and man-made vertical features such as tree masses, hills, and existing structures;

Cliffs and Bluffs

- Structures should be set back from bluffs and cliffs so as to not destroy natural land forms;
- Intrusion of structures into views from scenic areas should be minimized.

Accessory Structures

- Paved areas such as parking lots, driveways, sidewalks, etc., should be well integrated into the site, relate to existing and proposed structures and landscaped to reduce visual impact
- Small separate paved parking lots are preferred to large single paved lots
- Parking areas should be screened from residential areas and from scenic roadways
- Driveways should be shared when feasible to reduce curb cuts, especially along major arterials and scenic roads
- Paving materials used for pathways, sidewalks, driveways, and parking areas should be varied, textured, colored or patterned to add visual interest, especially where visible from above.

Scale

- Structures should relate in size and scale to adjacent buildings and to the neighborhood in which they are located.

3.1.2.3.4 COUNTY OF SAN MATEO ZONING CODE – DESIGN REVIEW OVERLAY

The County Zoning Code contains specific provisions pertaining to lighting, signage, building height, setbacks, and other design elements specific to the zoning designations of the project site. In San Mateo County, development and building improvements requiring a building permit are subject to review to determine their adherence with County standards, regulations, and policies. Compliance is ensured by conditions of approval attached to discretionary development permits.

The Community Design Manual (1976) includes, but is not limited to, siting and design measures as follows:

- Developments should be located and designed to retain and blend with natural vegetation and land forms, including minimizing grading, and retaining major trees and tree stands.
- Landscaping should be informal in nature and use native tree and plant materials.
- Views should be preserved by limiting building heights, and using visual screening and setbacks.
- Structures should be clustered and sited to retain maximum open space.
- Structures should be set back from bluffs and cliffs.
- Paved areas should be integrated into the site, landscaped to reduce visual impact, and use small separate parking lots. Parking areas should be screened from residential areas and scenic roadways.
- Underground utility lines should be required.
- Exterior colors and materials should blend with natural setting and surrounding neighborhoods; highly reflective surfaces and colors are discouraged.
- Use simple shapes, non-reflective surfaces for roofs, and a simple range of colors and materials to unify building design. Structures should relate in size and scale to adjacent buildings and to the surrounding neighborhood.

3.1.3 Thresholds of Significance

Pursuant to the California Environmental Quality Act (CEQA) Guidelines and the County of San Mateo CEQA checklist, the project would be considered to have a significant effect on aesthetics if the effects exceed the significance criteria described below:

1. Will the project have a substantial adverse effect on a scenic vista, views from existing residential areas, public lands, water bodies, or roads?
2. Will the project substantially damage or destroy scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
3. In non-urbanized areas, will the project substantially degrade the existing visual character or quality of public views of the site and its surroundings, such as significant change in topography or ground surface relief features, and/or development on a ridgeline? (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?

4. Will the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?
5. Is the project adjacent to a designated Scenic Highway or within a state or County Scenic Corridor?
6. If the project is within a Design Review District, will it conflict with applicable General Plan or Zoning Ordinance provisions?
7. Will the project visually intrude into an area having natural scenic qualities?

Each of these thresholds is discussed under Section 3.1.5, Impacts and Mitigation Measures, below.

3.1.4 Impact Assessment and Methodology

The determinations of significance of project impacts are based on applicable policies, regulations, goals, and guidelines defined by CEQA and the County. In addition to comparing the project to relevant policies and standards, the aesthetic resources assessment identified which specific criteria contribute most to the existing quality of each view and if change would occur to those criteria as a result of the project. If a change in visual criteria was identified, this change was analyzed for its potential effect on the existing scenic character. This analysis was combined with the potential number of viewers, their sensitivities, and viewing duration in order to determine the overall level of impacts. Specifically, the project would be considered to have a significant effect on visual/aesthetic resources if the effects exceed the significance criteria described above.

A field reconnaissance of the project site and surrounding areas was conducted by Stevens Consulting and Pyatok Architects on October 17, 2017.⁴⁷ The purpose of the visit was to document existing visual conditions at the project site and views of the site from neighboring properties and from Highway 1. Numerous photographs were taken from vantage points at the project site and from areas surrounding the project site from which the site is visible, in order to analyze the representative views and the potential aesthetic impacts associated with the proposed project. Stevens Consulting and Pyatok Architects completed an aesthetics and visual resources report which included visual simulations from representative vantage points surrounding the site. This analysis uses some photographs and simulations from both documents to best show visual conditions at the project site as seen from representative vantage points. These photographs are not meant as an exhaustive collection of the views from all vantage points that include the project site, but instead are intended as representative views from within the project site as well as views of the site from the surrounding areas.

This section evaluates potential aesthetic impacts associated with implementation of the project, including impacts to scenic resources, views, visual character, and light and glare. The visual impacts of the proposed project were completed by evaluating the compatibility of the physical components of the proposed project with its surroundings land uses. Visual impacts are also analyzed through an examination of views and/or viewsheds, scenic resources, visual character, changes in light or glare, and compatibility with pertinent local policies.

⁴⁷ Pyatok Architects. 2017. *Aesthetics and Visual Resources Report*. Pyatok Architects. October 17.

3.1.5 Impacts and Mitigation Measures

Impact AES-1: Would the project have a substantial adverse effect on a scenic vista, views from existing residential areas, public lands, water bodies, or roads? (Less than Significant)

The project is designed to cluster development in the northwestern portion of the project site. Approximately one-half of the project site would be developed and landscaped. The remainder of the site would be unaltered, with the exception of the removal of hazardous trees and the improvement of existing pedestrian/bicycle paths open to the community. The majority of the forested areas on the northern portion of the site would be preserved (see Figure 2.5-10 in Chapter 2, Project Description).

Westerly scenic vistas seen from points east and southeast of the site are dominated by the Pacific Ocean, and the skyline at the western horizon. Viewers with direct views of western vistas that could be affected by implementation of the proposed project include residents of the three homes on Lincoln Street and two homes at the base of Buena Vista Street, and several residences on Sierra Street near the southeastern site boundary (Figure 3.1-4). As can be seen in Figure 3.1-4, Lincoln Street does not have a direct view of the Pacific Ocean, due to intervening topography and vegetation. Because the site would not be in the ocean viewshed for residences along Stetson Street or Carlos Street, there would be no potential for significant visual interference of ocean views for these viewers. As seen in Figure 3.1-4, new project structures would be partially screened by existing vegetation. Figure 3.1-4 does not include the additional landscaping proposed by the project (see Figure 2.5-10 in Chapter 2, Project Description), which would further screen new development from existing neighborhood views.

Scenic vistas to the east of the project site beyond Lincoln Street include both ridges and skylines, while the vistas to the west include coastal bluffs and the Pacific Ocean, all of which are identified by the General Plan as important aesthetic features. No sensitive viewing locations are west of the project site that would have views of the ridges and skylines to the east.

Sierra Street has an existing view of the project site from the southwest. Because the project site is elevated above Sierra Street, current views include hillsides or embankments and existing vegetation (Figure 3.1-5). Viewers from Sierra Street in the vicinity of Stetson Street would likely see parts of Buildings 3 through 6. These views would be intermittent as a result of the hill slope and intervening vegetation (see Figure 3.1-5). In addition, the project would plant evergreens to further screen these views (see Figure 2.5-10 in Chapter 2, Project Description). Figure 3.1-5 does not include the additional landscaping proposed by the project (see Figure 2.5-10), which would further screen new development from existing neighborhood views.



Figure 3.1-4. Before and after views, looking northwest from Lincoln Street.

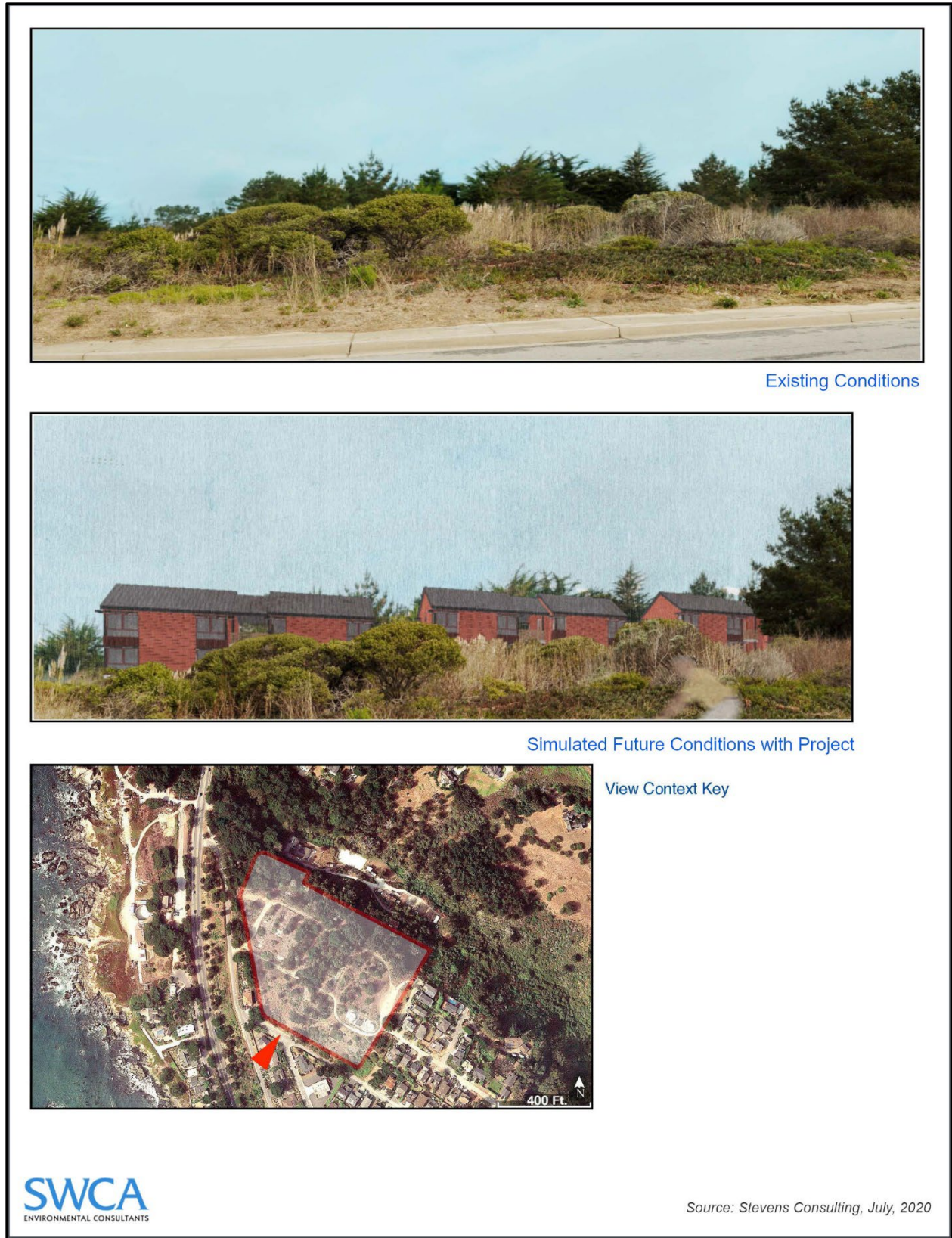


Figure 3.1-5. Before and after views, looking northeast from Sierra Street.

The project would be most visible from Carlos Street to the west of the project site. Carlos Street has embankments to the east and west that block scenic vistas. Existing views from Carlos Street include one residence, embankments, and existing vegetation. The project would be most visible from Carlos Street at the project entrance, where it would be visible to travelers on Carlos Street (Figure 3.1-6). These views would be somewhat shielded by new landscaping (see Figure 2.5-10 in Chapter 2, Project Description). Views of the project from the southern end of Carlos Street would include the project entrance and views of many of the project buildings (see Figure 3.1-6). As the project site is on the east side of Carlos Street, it would not block scenic vistas of the Pacific Ocean. The existing embankment on the east side of Carlos Street blocks views of scenic vistas of the mountains to the east, therefore the project would not block scenic vistas from Carlos Street. Landscaping would include additional trees planted between the project and the single residence on Carlos Street to shield the residence from views of the project (see Figure 2.5-10).

Views of the project site by travelers on Highway 1 are blocked by existing vegetation and changes in grade, neither of which would be modified by the proposed project. Together, vegetation and topography act to shield most of the project site from the view of travelers on Highway 1. In addition, screening vegetation would be planted as part of project landscaping (see Figure 2.5-10 in Section 2, Project Description) that would further screen views of Buildings 1 and 2 (the closest buildings to Highway 1) from view. Additional potential locations of sensitive viewers to the west include hikers on the California Coastal Trail. In the vicinity of the project, the California Coastal Trail is routed through the entrance drive of the MSWD office and then to Vallamar Street. Similar to the project site, the MWSD entrance drive is elevated above Highway 1. Portions of Buildings 1 and 2 are unlikely to be visible from the MSWD drive, as the buildings would be set back and screened by existing and newly planted trees and vegetation. Therefore, the views to the east across Highway 1 from this driveway and the California Coastal Trail would be blocked by changes in grade and existing vegetation, neither of which would be modified by the project at this location. Views from Highway 1 to the north and south of the project site include views of residential structures and neighborhoods in Montara and Moss Beach.

Other public viewpoints of the project site include Point Montara Lighthouse Hostel (0.15 mile northwest), Montara State Beach (0.70 mile northeast), and James V. Fitzgerald Marine Reserve (0.57 mile southwest). The project site is not visible from these public viewpoints due to intervening topography and vegetation.

As previously noted, the project site slopes down from east to west. The elevation of the project site ranges from approximately 80 to 190 feet amsl. With implementation of the proposed project, the site would be graded to develop building pads at elevations from 187 feet amsl for the buildings nearest the easterly site boundary to 158 feet amsl for buildings nearest Carlos Street. Within the developed area of the site, 16 two-story buildings with roof heights at a maximum of 28 feet, with a simple traditional roof shape and slope (4:12) would be constructed, as well as a one-story community building. Building materials include wood-look cement board siding in shades of dark red and brown and gray composite shingle roofing materials (see Figure 2.5-2 in Chapter 2, Project Description). The buildings would be clustered in the center of the site and screened by existing vegetation and new landscaping (see Figure 2.5-10).

Approximately one-half of the site would be developed, and the remainder would remain undeveloped. Building pad elevations for the buildings nearest to Lincoln Street would range from 183 to 187 feet amsl. All other building pad elevations on the site would be lower. Buildings nearest Carlos Street would be set back at the minimum of 20 feet from the property line. Buildings nearest Lincoln Street and Buena Vista Street would be set back approximately 230 feet from the nearest off-site residences on Lincoln or Buena Vista Streets. Within this setback area, existing trees would be retained, as would trees along the northerly site boundary (see Figure 2.5-10).



Existing Conditions



Simulated Future Conditions with Project



View Context Key



Source: Stevens Consulting, July, 2020

Figure 3.1-6. Before and after views, looking east from southwest corner of project site near Carlos Street.

The floor elevations for the existing residences along Lincoln Street and the base of Buena Vista Street range from 186 to 193 feet amsl (see Figure 3.1-4). As shown in Figure 3.1-4, the tops of project buildings would be visible from Lincoln Street, although they would be further screened by proposed landscaping. Views of approximately the top half of the two-story buildings would be visible from Sierra Street in the vicinity of Stetson Street (see Figure 3.1-5). These would also be further screened by proposed landscaping. The simulations in these two figures do not include screening vegetation that would be planted as part of project landscaping (see Figure 2.5-10 in Chapter 2, Project Description). The project would be required to go through design review by the County which would ensure the project is visually compatible with surrounding development.

All other proposed buildings on the project site would be located at lower elevations and would be more distant from Lincoln and Buena Vista Street. Because of the change in elevation between on-site building pads, the distance of the buildings from surrounding viewpoints, intervening vegetation that would not be affected by the project, and proposed screening landscaping, vistas of the Pacific Ocean and surrounding hills would not be blocked with project implementation.

Although some of the buildings would be visible from surrounding areas, they would generally be lower in height than existing vegetation and would not interfere with views of the Pacific Ocean or other scenic vistas. The project is required to comply with the recommendations of the Design Review Committee. Therefore, the impact to scenic vistas would be less than significant. No mitigation is required.

Impact AES-2: Would the project substantially damage or destroy scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (Less than Significant)

The project site is located approximately 160 feet east of Highway 1. There are no designated State Scenic Highways near the project site, however, Highway 1 is an eligible State Scenic Highway and a County-designated scenic highway, and the westerly third of the project site is within the Cabrillo Highway County Scenic Corridor (see Figure 3.1-2). There are no rock outcroppings or historic buildings on the project site. The existing concrete foundations are not eligible for historic status. While some trees on the project site would be removed through project implementation, the trees and vegetation around the perimeter of the site and on the northwestern edge, between Highway 1 and the area to be developed, would not be removed. The project includes a minimum of 20-foot building setbacks from Carlos Street on the western border of the site and larger setbacks along the north, east, and west property lines. The speed limit on Highway 1 in the vicinity of the project is 50 miles per hour. Buildings 1 and 2 would be closest to Highway 1 but are set back from the embankment and would be screened with both existing trees and new landscaping, therefore they are unlikely to be visible from Highway 1. If portions of the building were visible from Highway 1, travelers would only be exposed briefly due to travel speeds and the buildings would be elevated well above the usual line of sight due to the topography. Together, vegetation and topography would shield the project site from the view of travelers on Highway 1. Therefore, impacts related to damage to scenic resources from a state scenic highway would be less than significant. No mitigation is required.

Impact AES-3: Would the project in nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings, such as significant change in topography or ground surface relief features, and/or development on a ridgeline? (Public views are those that are experienced from publicly accessible vantage point.) In an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? (Less than Significant)

The site would be graded to develop building pads at elevations from 187 feet amsl for the buildings nearest the east site boundary to 158 feet amsl for buildings nearest Carlos Street. Building pads would be designed to step down and blend with existing topography, so changes to topography would be minimal. Approximately one-half of the site would be developed, and the remainder would remain undeveloped.

Development of the project as proposed would result in changes to the existing visual character of the site by replacing an existing undeveloped area with 16 residential buildings, a community building, parking lots, landscaping, and other improvements. No building would be more than two stories (maximum of 28 feet) tall. Buildings are designed to be low profile and would be a combination of two-story townhomes and one-story ADA-accessible flats. Buildings would be broken up into small groups of units to reduce bulking (see Figure 2.5-1 and Figures 2.5-3 through 2.5-8 in Chapter 2, Project Description). Existing vegetation along the perimeter of the proposed project would be retained and additional landscaping would include the addition of trees placed to screen the development. Open space areas would be maintained. Additional proposed landscaping would provide a buffer between the project and the existing residential uses along Carlos Street, Sierra Street, Stetson Street, Buena Vista Street, and Lincoln Street. All developed areas of the site would be set back from adjoining residences by a minimum of 167 feet (230 feet adjacent to Lincoln Street). The nearest project building would be set back approximately 60 feet from buildings north of the project entrance on Carlos Street. A proposed retaining wall would be set back approximately 53 feet from Carlos Street in this location.

Activities associated with construction of the project would be concentrated on the approximately 11-acre parcel, and would be visible to motorists, tourists, and residents. During construction, visual impacts would include the presence of workers, temporary structures, construction equipment, and vehicles at the project site. The project is adjacent to a public roadway (Carlos Street) that is primarily used by residents, as well as Highway 1, but some screening is provided due to topography and existing vegetation.

Although the existing visual character of the site would be altered by implementation of the project, the change would not result in conditions causing significant visual degradation. Site grading and fill to construct building pads, roadways, and parking areas, or install utilities would not be visible or apparent from areas outside of the project site. The only site features visible to viewers from surrounding areas would be the proposed buildings themselves. As noted above, the buildings would be set back at a minimum of 20 feet from the property line so that their apparent mass would be reduced (see Figure 3.1-5). Furthermore, the project site would represent an additional residential use within an already developed residential area that already includes many two-story buildings.

Development on-site would be subject to the policies of the County General Plan, the County LCP, and Section 6565.17 of the County Zoning Code. The project would be required to comply with all applicable County visual quality policies, which “promote and enhance good design, site relationships, and other aesthetic considerations,” and “promote visually attractive development.” To ensure compliance with County visual resource policies, the project would be subject to review by the Coastside Design Review Committee.

The project would be consistent with LCP and County General Plan policies and zoning codes. The project is designed to minimize alteration of the natural landforms and be visually compatible with

surrounding areas. It would cluster development, increase setbacks, minimize grading, and retain the majority of trees on the site. Approximately 295 trees are proposed to be removed as part of project activities, including approximately 190 Significant or Heritage Trees.⁴⁸ The project has been designed to fit the topography and use smaller buildings with a maximum height of 28 feet to reduce massing, per the County LCP. Consistent with the County Community Design Manual, and Zoning and General Plan Designations, the project is designed to include use of natural colors and materials and non-reflective materials, including wood-look cement board siding in shades of dark red and brown and gray composite shingle roofing materials (see Figure 2.5-2 in Chapter 2, Project Description). The project is in the Highway 1 Scenic Corridor and is designed to not be visible from Highway 1, in compliance with the LCP. Access roads and parking areas would be integrated into the site, with multiple small parking lots around a ring road, and screened with landscaping. All new distribution lines would be underground. Landscaping with native tree and plant materials would have an informal character and be used to screen the project and reduce visual impacts.

In summary, proposed on-site uses would be sited with large setbacks from Carlos, Sierra, Buena Vista, and Lincoln Streets, approximately one-half of the project site would remain in open space, and existing (except for the removal of dead or diseased) vegetation would be maintained to screen the project from adjacent viewers. Landscaping would include additional screening trees. Furthermore, the project would be subject to future design review and would comply with all applicable design standards and guidelines. With implementation of the proposed site plan, the project would not result in a substantial degradation to the visual character of the project site and would be consistent with County regulations. This impact would be less than significant.

Impact AES-4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (Less than Significant)

The proposed project would introduce additional sources of lighting and reflective surfaces to the project site. Building materials include wood-look cement board siding in shades of dark red and brown and gray composite shingle roofing materials (see Figure 2.5-2 in Chapter 2, Project Description). New lighting sources would include outdoor street lighting and security lighting, indoor lighting, and light generated by vehicle headlights. Lighting would be used as a design tool to highlight architectural elements and landscaping. Lighting would also provide security and safety in parking areas, service passages, and common areas of the project. A detailed lighting plan is not available at this time. However, the project would be in compliance with LCP Policy 8.18(a), “Exterior lighting shall be limited to the minimum necessary for safety. All lighting, exterior and interior, must be placed, designed and shielded so as to confine direct rays to the parcel where the lighting is located.”

While glare could occur from sunlight reflecting off windows and/or solar panels, windows would be mostly screened by existing and new vegetation and would be unlikely to be significant. Solar panels are designed to absorb as much sunlight as possible and are constructed of dark-colored (usually blue or black) materials and covered with anti-reflective coatings. Modern solar panels reflect as little as 2% of incoming sunlight, about the same as water.⁴⁹ The projects solar panels would be roof mounted. As such, they would be screened by vegetation but likely would be partially visible from Sierra Street and Carlos Street. They would not be visible from Lincoln Street because the panels would be west facing, or from Highway 1 due to intervening topography and vegetation. The combination of anti-reflective coatings and

⁴⁸ HortScience | Bartlett Consulting. 2022. Arborist Report, Cypress Point. HortScience | Bartlett Consulting. July 1.

⁴⁹ Meister Consultants Group. 2014. *Solar and Glare*. Available at: https://icma.org/sites/default/files/306952_Solar%20PV%20and%20Glare.pdf. Accessed April 24, 2023.

screening of solar panels by vegetation would result in less than significant impacts related to glare from solar panels.

Prior to the approval of final project plans, the applicant would be required to submit a detailed lighting plan to the County for review and approval by the Community Development Director, consistent with County requirements. The lighting plan shall prohibit light spillover across property lines and limit lighting to the minimum necessary for security and exterior lighting purposes, as determined by the Community Development Director. All lighting shall be designed to be compatible with surrounding development. The project shall not propose light sources that are atypical of the surrounding environment.

Reflective glass or other glaring building materials shall be discouraged. The exterior of the proposed building shall be constructed of non-reflective materials such as, but not limited to, high-performance tinted non-reflective glass, metal panel, and pre-cast concrete or cast in-place or fabricated wall surfaces.

The project would not introduce new sources of light or glare on the project site that would be incompatible with the areas surrounding the project site or which would pose a safety hazard. Therefore, this impact would be less than significant. No mitigation is required.

Impact AES-5: Would the project be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor? (Less than Significant)

The project is not adjacent to the State or County Scenic Highway. As discussed in Impact AES-2, the Project would be located approximately 160 feet east of Highway 1 and would be partially located within the Highway 1 County Scenic Corridor. However, the project would be separated from Highway 1 by two embankments (for Highway 1 and Carlos Street), clustered on-site, and set back from the embankment edge. Existing vegetation and new landscaping would be used to further screen the project from view from Highway 1. Therefore, this impact would be less than significant.

Impact AES-6: If within a Design Review District, would the Project conflict with applicable General Plan or Zoning Ordinance provisions? (Less than Significant)

The project is located in the Design Review Zoning District for the Coastal Zone and subject to the County Community Design Manual (1976), Special Design Guidelines for the Montara–Moss Beach–El Granada–Miramar coastal area, and the requirements of the Design Review Committee. As discussed under Impact AES-3, above, the project would be consistent with LCP policies, General Plan policies and Zoning Ordinance provisions.

As part of the project, the applicant would submit detailed design, materials, and landscaping plans to the County for review and approval by the Community Development Director, consistent with County requirements. The plans submitted do not conflict with any applicable General Plan or Zoning Ordinance provisions and the impact is less than significant.

Impact AES-7: Would the project visually intrude into an area having natural scenic qualities? (Less than Significant)

The project site is a vacant parcel within a neighborhood surrounded by existing single-family homes. Scenic resources on the site consist of native and nonnative trees, shrubs, and other vegetation. Other features of the site include concrete foundations of buildings from the former military use of the site. Several of the foundations have been vandalized by graffiti. Several dirt roads and path cross the site. In addition, two water storage tanks maintained by the MWSD are located within the boundaries of the project, although they are not a part of the proposed development.

Much of the vegetation of the site would be preserved during development and approximately half of the site would be maintained as open space during operation. Except for the removal of dead or diseased trees and shrubs, vegetation adjacent to 16th Street, Sierra Street, and Lincoln Street would be maintained to maximize screening. Additional perimeter vegetation may be removed along Carlos Street to accommodate the project driveway.

The project would be concentrated in the center of the site, near the existing concrete foundations. Due to changes in grade and dense vegetation, adjacent viewpoints from 16th Street, Carlos Street, and Sierra Street offer partial views. Views from upper Sierra Street, Buena Vista Street, and Lincoln Street tend to be mid-range, and the site is not entirely visible. As discussed in Impact AES-3, site grading and fill to construct building pads, roadways, and parking areas, or install utilities would not be apparent from areas outside of the project site. The only site features visible to viewers from surrounding areas would be the proposed buildings. As noted above, the buildings would be substantially set back from adjacent viewers, have a natural color scheme, and be screened with landscaping so that their apparent mass would be reduced.

While the project represents an intensification of use on the site, strategies to screen and lessen the visual impact have been incorporated into project design. Due to increased setback, screening potential, and clustering of development, the impacts are considered less than significant, and no mitigation is required.

3.1.6 Cumulative Impacts

Impact C-AES-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to aesthetics? (Less than Significant)

The proposed project's potential contribution to cumulative impacts on aesthetic resources is evaluated in the context of past, present, and reasonably foreseeable probable future development expected in San Mateo County. Aesthetics impacts are dependent upon the location of users, the breadth of the viewshed, and the contiguousness of scenic vistas, views, character, and sources of light and glare. Further, the County evaluates aesthetic impacts in comparison to the potential for conflict with General Plan policies and Zoning Ordinance provisions and intrusion into scenic qualities. As discussed above, the project site is located in an area of the San Mateo Coast that is characterized by both residential areas and important visual resources, including the Pacific Ocean. The California Coastal Trail, Montara State Beach, Fitzgerald Marine Reserve, Montara Lighthouse Hostel and Highway 1 have been identified as Public Viewpoints because of views from those locations of the Pacific Ocean and coastal hills.

All cumulative projects would be subject to consistency with applicable general plan policies and Zoning Ordinance provisions, including LCP goals and policies. The nearest cumulative project is located 0.05 mile to the southeast. None of the cumulative projects would be visible from the project site, therefore the proposed project would not cumulatively contribute to localized cumulative impacts on existing visual character, scenic vistas, or natural scenic qualities, or result in cumulative light or glare impacts (see Figure 3.0-1). Three of the development projects—the Etheldore Apartments, Harbor Village RV Park, and Hyatt Hotel Expansion—would be visible from Highway 1. The Etheldore Apartments would be visible from Highway 1 but would be part of an existing residential area. The Harbor Village RV Park and Hyatt Hotel Expansion would also be visible and would contribute to the prominence of tourism and its infrastructure in the area. The Caltrans State Route 1 Multi-Asset Roadway Rehabilitation Project would make various roadway rehabilitation improvements to Highway 1. However, since the proposed project would not be visible from Highway 1 it would not cumulatively contribute to visual impacts in a scenic highway corridor. The Big Wave project would be visible from the Pillar Point Bluff Trail, which is a portion of the California Coastal Trail, however, since the proposed project would not be

visible from the California Coastal Trail, no cumulative impact would occur. None of the projects on the cumulative list would be visible from the other identified public viewpoints, due to both distance and topography (see Figure 3.0-1), therefore no cumulative impact would occur. Therefore, cumulative impacts on aesthetic resources would be less than significant. The proposed project would not substantially contribute to a significant cumulative impact. No mitigation is required.

3.2 AIR QUALITY

This section describes the existing air quality in the project site and evaluates the potential environmental impacts of the construction and operation of the proposed project. This section describes the environmental setting, including the regulatory framework and the existing air quality setting and baseline conditions, and identifies mitigation measures, if required, that would avoid or reduce significant impacts.

This evaluation is based on the methodology recommended by the Bay Area Air Quality Management District (BAAQMD) for project-level review. The analysis focuses on air pollution from regional emissions and localized pollutant concentrations from the buildout of the proposed project. Construction and operation criteria air pollutant emissions modeling was completed and relies on the conclusions in the following study:

- *Air Quality and Greenhouse Gas Technical Report, 2023*. SWCA Environmental Consultants (SWCA) (Appendix C)

A construction health risk assessment (HRA) was completed in 2018 by Illingworth & Rodkin,⁵⁰ with results and conclusions applicable to the current assessment. This report is included as Appendix A to the SWCA-prepared *Air Quality and Greenhouse Gas Technical Report* (see Appendix C).

3.2.1 Environmental Setting

3.2.1.1 San Francisco Bay Area Air Basin

The California Air Resources Board (CARB) has divided California into regional air basins according to topographic air drainage features. The San Francisco Bay Area Air Basin (SFBAAB), managed by the BAAQMD, comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, as well as portions of Solano and Sonoma Counties. Air quality is determined by natural factors such as climate, topography, and meteorology, in addition to the presence of air pollution sources and ambient conditions.

The SFBAAB is characterized by complex terrain, consisting of coastal mountain ranges, inland valleys, and bays, all of which distort normal wind flow patterns. The Coast Ranges split, resulting in a western coast gap, the Golden Gate, and an eastern coast gap, Carquinez Strait; these allow air to flow in and out of the SFBAAB and the Central Valley. The climate is dominated by the strength and location of a semi-permanent, subtropical high-pressure cell. During the summer, the Pacific high-pressure cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below the surface because of the northwesterly flow produces a band of cold water off the California coast. The cool and moisture-laden air approaching the coast from the Pacific Ocean is further cooled by the presence of the cold-water band, resulting in condensation and the presence of fog and stratus clouds along the Northern California coast. In the winter, the Pacific high-pressure cell weakens and shifts southward, resulting in wind flow offshore, the absence of upwelling, and the occurrence of storms. Weak inversions coupled with moderate winds result in a low air pollution potential.

Summertime temperatures in the SFBAAB are determined in large part by the effect of differential heating between land and water surfaces. On summer afternoons, the temperatures at the coast can be 35 degrees Fahrenheit (°F) cooler than temperatures 15 to 20 miles inland; at night, this contrast usually

⁵⁰ Illingworth & Rodkin. 2018. *Cypress Point Affordable Housing Project Air Quality & Greenhouse Gas Emissions Assessment*. June 29, 2018.

decreases to less than 10°F. In the winter, the relationship between the minimum and maximum temperatures is reversed. During the daytime, the temperature contrast between the coast and inland areas is small, whereas at night the variation in temperature is large.

The SFBAAB is characterized by moderately wet winters and dry summers. Winter rains (November–March) account for about 75% of the average annual rainfall. The amount of annual precipitation can vary greatly from one part of the SFBAAB to another, even within short distances. In general, total annual rainfall can reach 40 inches in the mountains, but it is often less than 16 inches in sheltered valleys. During rainy periods, ventilation (rapid horizontal movement of air and injection of cleaner air) and vertical mixing (an upward and downward movement of air) are usually high; therefore, pollution levels tend to be low (i.e., air pollutants are dispersed more readily into the atmosphere rather than accumulating under stagnant conditions). However, during the winter, frequent dry periods do occur, where mixing and ventilation are low and pollutant levels build up.

BAAQMD divides the SFBAAB into subregions with distinct climate and topographic features. The proposed program area is in the Peninsula Subregion of the SFBAAB.

3.2.1.2 Air Pollutants of Concern

3.2.1.2.1 CRITERIA AIR POLLUTANTS

Pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state laws under the federal Clean Air Act and California Clean Air Act. The pollutants emitted into the ambient air by stationary and mobile sources are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NO_x), sulfur dioxide (SO₂), coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), and lead (Pb) are primary air pollutants. Of these, CO, SO₂, nitrogen dioxide (NO₂), PM₁₀, and PM_{2.5} are “criteria air pollutants,” which means that ambient air quality standards (AAQS) have been established for them. ROG and NO_x are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O₃) and NO₂ are the principal secondary pollutants. Table 3.2-1 summarizes the potential health effects associated with the criteria air pollutants.

Table 3.2-1. Criteria Air Pollutant Health Effects Summary

Pollutant	Effect on Health	Sources
CO	Chest pain in heart patients Headaches, nausea Reduced mental alertness Death at very high levels	Any object that burns fuel such as cars, trucks, construction and farming equipment, and residential heaters and stoves
O ₃	Cough, chest tightness Difficulty taking a deep breath Worsened asthma symptoms Lung inflammation	Atmospheric reaction of organic gases with NO _x in sunlight
NO ₂	Increased response to allergens Aggravation of respiratory illness	Same as CO sources
PM ₁₀ and PM _{2.5}	Hospitalizations for worsened heart diseases Emergency room visits for asthma Premature death	Cars and trucks (particularly diesel) Fireplaces and woodstoves Windblown dust from overlays, agriculture, and construction

Pollutant	Effect on Health	Sources
SO ₂	Aggravation of respiratory disease (e.g., asthma and emphysema) Reduced lung function	Combustion of sulfur-containing fossil fuels, smelting of sulfur-bearing metal ores, and industrial processes
Pb	Behavioral and learning disabilities in children	Contaminated soils

Source: California Air Resources Board, 1998.

- O₃ is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun’s energy and O₃ precursors. These precursors are mainly NO_x and volatile organic compounds (VOCs). The maximum effects of precursor emissions on O₃ concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O₃ formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O₃ exists in the upper atmosphere O₃ layer (stratospheric O₃) and at the Earth’s surface in the troposphere (O₃). The O₃ that the U.S. Environmental Protection Agency (EPA) and the CARB regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O₃ is a harmful air pollutant that causes numerous adverse health effects and is thus considered “bad” O₃. Stratospheric, or “good” O₃ occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth’s atmosphere. Without the protection of the beneficial stratospheric O₃ layer, plant and animal life would be seriously harmed.

O₃ in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. These health problems are particularly acute in sensitive receptors such as the sick, the elderly, and young children.

- NO₂ is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO₂ in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO), which is a colorless, odorless gas. NO_x plays a major role, together with VOCs, in the atmospheric reactions that produce O₃. NO_x is formed from fuel combustion under high temperature or pressure. In addition, NO_x is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers. NO₂ can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections.
- CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, such as the project site, automobile exhaust accounts for most CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood’s ability to transport

oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions.

- SO₂ is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO₂ are coal and oil used in power plants and industries; as such, the highest levels of SO₂ are generally found near large industrial complexes. In recent years, SO₂ concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO₂ and limits on the sulfur content of fuels. SO₂ is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. When combined with particulate matter, SO₂ can injure lung tissue and reduce visibility and the level of sunlight. SO₂ can also yellow plant leaves and erode iron and steel.
- Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. PM_{2.5} and PM₁₀ represent fractions of particulate matter. PM₁₀ is 10 microns or less in diameter and is about 1/7 the thickness of a human hair. Major sources of PM₁₀ include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. PM_{2.5} is 2.5 microns or less in diameter and is roughly 1/28 the diameter of a human hair. PM_{2.5} results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, PM_{2.5} can be formed in the atmosphere from gases such as sulfur oxides (SO_x), NO_x, and VOCs.

PM_{2.5} and PM₁₀ pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM_{2.5} and PM₁₀ can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as Pb, sulfates, and nitrates can cause lung damage directly or be absorbed into the bloodstream, causing damage elsewhere in the body. Whereas PM₁₀ tends to collect in the upper portion of the respiratory system, PM_{2.5} is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle and produce haze and reduce regional visibility.

People with influenza, people with chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death as a result of breathing particulate matter. People with bronchitis can expect aggravated symptoms from breathing in particulate matter. Children may experience a decline in lung function due to breathing in PM_{2.5} and PM₁₀.

- Pb in the atmosphere occurs as particulate matter. Sources of Pb include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary Pb smelters. Prior to 1978, mobile emissions were the primary source of atmospheric Pb. Between 1978 and 1987, the phaseout of leaded gasoline reduced the overall inventory of airborne Pb by nearly 95%. With the phaseout of leaded gasoline, secondary Pb smelters, battery recycling, and manufacturing facilities are becoming Pb-emissions sources of greater concern. Prolonged exposure to atmospheric Pb poses a serious threat to human health. Health effects associated with exposure to Pb include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level Pb exposures during infancy and childhood. Children are highly susceptible to the effects of Pb.

- VOCs are typically formed from the combustion of fuels and/or released through evaporation of organic liquids. Some VOCs are also classified by the State as toxic air contaminants (TACs). While there are no specific VOC ambient air quality standards, VOCs are a prime component (along with NO_x) of the photochemical processes by which such criteria pollutants as O₃, NO₂, and certain fine particles are formed. They are, thus, regulated as “precursors” to the formation of those criteria pollutants.

3.2.1.2.2 TOXIC AIR CONTAMINANTS

TACs refer to a diverse group of “non-criteria” air pollutants that can affect human health but have not had AAQS established for them. This is not because they are fundamentally different from the pollutants discussed above, but because their effects tend to be local rather than regional. TACs are identified by federal and state agencies based on a review of available scientific evidence. In the state of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics “Hot Spots” Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hot spots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

The federal TACs are air pollutants that may cause or contribute to an increase in mortality or serious illness, or may pose a hazard to human health, although there are no ambient standards established for TACs. Many pollutants are identified as TACs because of their potential to increase the risk of developing cancer or other acute (short-term) or chronic (long-term) health problems. For TACs that are known or suspected carcinogens, the CARB has consistently found that there are no levels or thresholds below which exposure is risk-free. Individual TACs vary greatly in the risks they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another. For certain TACs, a unit risk factor can be developed to evaluate cancer risk. For acute and chronic health effects, a similar factor, called a hazard index (HI), is used to evaluate risk. TACs are identified and their toxicity is studied by the California Office of Environmental Health Hazard Assessment (OEHHA). Examples of TAC sources include industrial processes, dry cleaners, gasoline stations, paint and solvent operations, and fossil fuel combustion sources. The TAC that is relevant to the implementation of the project is diesel particulate matter (DPM).

DPM was identified as a TAC by the CARB in August 1998⁵¹. DPM is emitted from both mobile and stationary sources. In California, on-road diesel-fueled vehicles contribute approximately 40% of the statewide total, with an additional 57% attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and transport refrigeration units. Stationary sources contribute about 3% of emissions and include shipyards, warehouses, heavy-equipment repair yards, and oil and gas production operations. Emissions from these sources are from diesel-fueled internal combustion engines. Stationary sources that report DPM emissions also include heavy construction, manufacturers of asphalt paving materials and blocks, and diesel-fueled electrical generation facilities.

Exposure to DPM can have immediate health effects. DPM can have a range of health effects including irritation of eyes, throat, and lungs, and can cause headaches, lightheadedness, and nausea. Exposure to

⁵¹ California Air Resources Board (CARB). 1998. Report to the Air Resources Board on the Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant, Part A Exposure Assessment (as approved by the Scientific Review Panel).

DPM also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. Children, the elderly, and people with emphysema, asthma, and chronic heart and lung disease are especially sensitive to fine-particle pollution. In California, DPM has been identified as a carcinogen.

While not a TAC, PM_{2.5} has been identified by the BAAQMD as a pollutant with potential non-cancer health effects that should be included when evaluating potential community health impacts under the California Environmental Quality Act (CEQA). Diesel exhaust is the predominant TAC in air in urban areas and is estimated to contribute more than 85% of a 2006 inventory of Bay Area cancer risk from TACs⁵². According to CARB, diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of the health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State’s Proposition 65 or under the Federal Hazardous Air Pollutants programs.

3.2.1.3 Existing Conditions

3.2.1.3.1 LOCAL AIR QUALITY

Air pollutant emissions are generated in the local vicinity by stationary and area-wide sources, such as commercial and industrial activity, space and water heating, landscape maintenance, consumer products, and mobile sources primarily consisting of automobile traffic. Area-wide sources are the primary source of pollutants in the local vicinity.

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site have been documented and measured by the BAAQMD. BAAQMD has 24 permanent monitoring stations located around the Bay Area. The nearest station is the Redwood City–897 Barron Avenue Monitoring Station, which monitors O₃, NO₂, and PM_{2.5}. Data from this monitoring station are summarized in Table 3.2-2. The data show violations of the state and federal O₃ standards and federal PM_{2.5} standard. In recent years, California has been plagued by an unprecedented number of wildfires that have produced dense palls of smoke in the Bay Area. The air quality data collected by BAAQMD in Table 3.2-2 include exceptional events, including wildfires. The national and state criteria pollutants and the applicable ambient air quality standards are listed in Table 3.2-3 below.

Table 3.2-2. Summary of Ambient Air Quality Monitoring Summary

Pollutant		Year		
		2019	2020	2021
O ₃	Maximum 1-hour concentration (ppm)	0.083	0.098	0.085
	Days exceeding CAAQS (0.09 ppm)	0	1	0
	Maximum 8-hour concentration (ppm)	0.077	0.077	0.063
	Days exceeding NAAQS (0.07 ppm)	2	1	0
	Days exceeding CAAQS (0.07 ppm)	2	1	0
NO ₂	Maximum 1-hour concentration (ppb)	0.0549	0.0459	0.0405
	Days exceeding CAAQS (0.18 ppm)	0	0	0

⁵² Bay Area Air Quality Management District (BAAQMD). 2014. Health Impact Analysis of Ultrafine Particulate Matter in the San Francisco Bay Area. Available at: https://www.baaqmd.gov/~media/files/planning-and-research/research-and-modeling/estimating-public-health-and-monetary-impacts-of-ufpm-in-the-bay-area-final_12182014.pdf?la=en&rev=6e866d25899d4487850a6bd0b2caecf9. Accessed June 1, 2023.

Pollutant		Year		
		2019	2020	2021
PM _{2.5}	Maximum 24-hour concentration (µg/m ³)	29.5	124.1	30.1
	Days exceeding NAAQS (35 µg/m ³)	0	9	0

Source: CARB⁵³

Notes: µg/m³ = micrograms per cubic meter; CAAQS = California Ambient Air Quality Standards; NAAQS = National Ambient Air Quality Standards; ppb = parts per billion; ppm = parts per million

Data for O₃, NO₂, and PM_{2.5} was obtained from the Redwood City–897 Barron Avenue monitoring station.

BAAQMD also provides data that show the areas in the SFBAAB that have elevated pollution levels and are identified as “impacted areas.” Based on BAAQMD’s Community Risk Evaluation Program maps, the project site is not within an “impacted area.”

3.2.1.3.2 SENSITIVE RECEPTORS

Some population groups, including children, the elderly, and acutely and chronically ill persons (especially those with cardiorespiratory diseases), are considered more sensitive to air pollution than others. A sensitive receptor is a person in the population who is particularly susceptible to health effects due to exposure to an air contaminant. The following are land uses where sensitive receptors are typically located:

- Schools, playgrounds, and childcare centers
- Long-term healthcare facilities
- Rehabilitation centers
- Convalescent centers
- Hospitals
- Retirement homes
- Residences

Sensitive receptors (residences) are located adjacent to the north, east, and south of the project site, with additional residences located southwest of the site. Implementation of the proposed project would not result in the long-term operation of any emission sources that would adversely affect nearby sensitive receptors. Short-term (18-month) construction activities could result in temporary increases in pollutant concentrations. The construction-related emissions would be short term and located at different locations within the project site. Although construction would occur over 18 months, construction at any one site would last for a much shorter time. The limited duration and limited quantities of construction emissions ensure that no individual receptor would be exposed to substantial pollutant concentrations. During construction, the BAAQMD best management practices (BMPs) would minimize construction impacts by reducing dust and exhaust emissions.

⁵³ CARB. 2023. Air Quality Data Statistics; Top Four Summary for Monitored data at Livermore Station. Available at: <https://www.arb.ca.gov/adam/>. Accessed June 1, 2023.

3.2.2 Regulatory Setting

3.2.2.1 Federal Regulations

3.2.2.1.1 AMBIENT AIR QUALITY STANDARDS

The federal Clean Air Act (CAA) was passed in 1963 by the U.S. Congress and has been amended several times. The 1970 federal CAA amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting national AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California CAA, signed into law in 1988, requires all areas of the state to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practical date. The CAAQS tend to be more restrictive than the National Ambient Air Quality Standards (NAAQS).

The NAAQS and CAAQS are the levels of air quality considered to provide a margin of safety in the protection of public health and welfare. They are designed to protect “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.

Both California and the federal government have established health-based AAQS for seven air pollutants, which are shown in Table 3.2-3. These pollutants are O₃, NO₂, CO, SO₂, PM₁₀, PM_{2.5}, and Pb. In addition, 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.

Table 3.2-3. State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards	
			Primary	Secondary
O ₃	1 hour	0.09 ppm (180 µg/m ³)	–	Same as primary
	8 hours	0.070 ppm (137 µg/m ³)	0.070 ppm (13 µg/m ³)	
PM ₁₀	24 hours	50 µg/m ³	150 µg/m ³	Same as primary
	Annual mean	20 µg/m ³	–	
PM _{2.5}	24 hours	–	35 µg/m ³	Same as primary
	Annual mean	12 µg/m ³	12.0 µg/m ³	15 µg/m ³
CO	1 hour	20 ppm (23 µg/m ³)	35 ppm (40 mg/m ³)	–
	8 hours	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	–
NO ₂	1 hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)	–
	Annual mean	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as primary
SO ₂	1 hour	0.25 ppm (655 µg/m ³)	75 ppb (196 µg/m ³)	–
	3 hours	–	–	0.5 ppm (1,300 µg/m ³)
	24 hours	0.04 ppm (105 µg/m ³)	0.14 ppm	–
	Annual mean	–	0.030 ppm	–

Pollutant	Averaging Time	California Standards	National Standards	
			Primary	Secondary
Pb	30-day average	1.5 µg/m ³	–	–
	Calendarquarter	–	1.5 µg/m ³	Same as primary
	Rolling 3-monthaverage	–	0.15 µg/m ³	Same as primary
Visibility reducing particles	8 hours	10-mile visibility standard, extinction of 0.23 per kilometer	No national standards	
Sulfates	24 hours	25 µg/m ³		
Hydrogen sulfide	1 hour	0.03 ppm (42 µg/m ³)		
Vinyl chloride	24 hours	0.01 ppm (265 µg/m ³)		

Source: CARB⁵⁴

Notes: µg/m³ = micrograms per cubic meter; CAAQS = California Ambient Air Quality Standards; NAAQS = National Ambient Air Quality Standards; ppb = parts per billion; ppm = parts per million

Data for O₃, NO₂, and PM_{2.5} was obtained from the Redwood City–897 Barron Avenue monitoring station.

3.2.2.2 State Regulations

California has also adopted a host of other regulations that reduce criteria pollutant emissions, including:

- AB 1493: Pavley Fuel Efficiency Standards. Pavley I is a clean-car standard that reduces emissions from new passenger vehicles (light-duty automobiles to medium-duty vehicles) from 2009 through 2016. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025.
- Title 20 California Code of Regulations (CCR): Appliance Energy Efficiency Standards. The 2006 Appliance Efficiency Regulations (20 CCR 1601–1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. This code reduces natural gas use by appliances.
- Title 24, Part 6, CCR: Building Energy Efficiency Standards. Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977. This code reduces natural gas use from buildings.
- Title 24, Part 11, CCR: Green Building Standards Code. This code establishes planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. This code reduces natural gas use from buildings.
- Senate Bill (SB) 1078 and SB 107: Renewables Portfolio Standards. A major component of California’s Renewable Energy Program is the renewables portfolio standard established under SBs 1078 (Sher) and 107 (Simitian). Under this standard, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1% in order to reach at least 20% by December 30, 2010.

⁵⁴ CARB. 2023. Air Quality Data Statistics; Top Four Summary for Monitored data at Redwood City Station. Available online: <https://www.arb.ca.gov/adam/>. Accessed June 1, 2023.

- Heavy-Duty (Tractor-Trailer) Greenhouse Gas (GHG) Regulation. The tractors and trailers subject to this regulation must either use EPA SmartWay-certified tractors and trailers or retrofit their existing fleet with SmartWay-verified technologies. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. These owners are responsible for replacing or retrofitting their affected vehicles with compliant aerodynamic technologies and low-rolling-resistance tires. Sleeper-cab tractors, model years 2011 and later, must be SmartWay certified. All other tractors must use SmartWay-verified low-rolling-resistance tires. This rule has criteria air pollutant co-benefits.

3.2.2.2.1 TANNER AIR TOXICS ACT AND AIR TOXICS “HOT SPOT” INFORMATION AND ASSESSMENT ACT

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. The California Health and Safety Code defines a TAC as “an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health.” A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal CAA (42 United States Code Section 7412[b]) is a TAC. Under State law, the California Environmental Protection Agency, acting through CARB, is authorized to identify a substance as a TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics “Hot Spot” Information and Assessment Act of 1987). The Tanner Air Toxics Act sets up a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an “airborne toxics control measure” for sources that emit designated TACs. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate the best available control technology to minimize emissions for the substance. To date, CARB has established formal control measures for 11 TACs that are identified as having no safe threshold.

Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform an HRA, and if specific thresholds are exceeded, are required to communicate the results to the public through notices and public meetings.

CARB has promulgated the following specific rules to limit TAC emissions:

- 13 CCR Chapter 10, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- 13 CCR Chapter 10, Section 2480, Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools
- 13 CCR Section 2477 and Article 8, Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate

3.2.2.2.2 IDLING RESTRICTIONS

Section 2449 of the California Code of Regulations, Title 13, Article 4.8, Chapter 9 was adopted on May 2, 2008, and limits non-essential idling of fleets to no more than five consecutive minutes at any location. This idling restriction applies to all vehicles in California with a diesel-fueled or alternative

diesel-fueled off-road engine, unless a waiver provides sufficient justification that such idling is necessary. The airborne toxic control measure helps reduce public exposure to NO_x, DPM, and other criteria pollutant emissions from off-road, diesel-fueled vehicles.

3.2.2.3 Local Regulations

3.2.2.3.1 BAY AREA AIR QUALITY MANAGEMENT DISTRICT

The BAAQMD is the agency responsible for ensuring that the NAAQS and CAAQS are attained and maintained in the SFBAAB. It prepares air quality management plans to attain AAQS in the SFBAAB. The BAAQMD prepares O₃ attainment plans for the national O₃ standard and clean air plans for the California O₃ standard. The BAAQMD prepares these air quality management plans in coordination with Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) to ensure consistent assumptions about regional growth.

3.2.2.3.2 BAY AREA AIR QUALITY MANAGEMENT DISTRICT 2017 CLEAN AIR PLAN

The BAAQMD adopted the 2017 “Clean Air Plan: Spare the Air, Cool the Climate” (2017 Clean Air Plan) on April 19, 2017.⁵⁵ The 2017 Clean Air Plan incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2017 Clean Air Plan serves as an update to the adopted Bay Area 2010 Clean Air Plan and continues to provide the framework for SFBAAB to achieve attainment of the CAAQS and NAAQS. The 2017 Clean Air Plan updates the Bay Area’s O₃ plan, which is based on the “all feasible measures” approach to meet the requirements of the California CAA. It sets a goal of reducing health risk impacts to local communities by 20 percent between 2015 and 2020 and lays the groundwork for reducing GHG emissions in the Bay Area to meet the State’s 2030 GHG reduction target and 2050 GHG reduction goal. It also includes a vision for the Bay Area in a post-carbon year 2050 that encompasses the following:

- Construct buildings that are energy efficient and powered by renewable energy.
- Walk, bicycle, and use public transit for most trips and use electric-powered autonomous public transit fleets.
- Incubate and produce clean energy technologies.
- Live a low-carbon lifestyle by purchasing low-carbon foods and goods in addition to recycling and putting organic waste to productive use.

A comprehensive multipollutant control strategy was developed to be implemented in the next 3 to 5 years to address public health and climate change and to set a pathway to achieve the 2050 vision. The control strategy includes 85 control measures to reduce emissions of O₃, particulate matter, TACs, and GHG from a full range of emission sources. These control measures cover the following sectors: 1) stationary (industrial) sources, 2) transportation, 3) energy, 4) agriculture, 5) natural and working lands, 6) waste management, 7) water, 8) super-GHG pollutants, and 9) buildings. The proposed control strategy is based on the following key priorities:

- Reduce emissions of criteria air pollutants and TACs from all key sources.

⁵⁵ Bay Area Air Quality Management District. 2017. *Final 2017 Clean Air Plan, Spare the Air, Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area*. Available at: https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-_proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed January 25, 2023.

- Reduce emissions of “super-GHGs” such as methane, black carbon, and fluorinated gases.
- Decrease demand for fossil fuels (gasoline, diesel, and natural gas).
 - Increase efficiency of the energy and transportation systems.
 - Reduce demand for vehicle travel, and high-carbon goods and services.
- Decarbonize the energy system.
 - Make the electricity supply carbon-free.
 - Electrify the transportation and building sectors.⁵⁶

3.2.2.3.3 COMMUNITY AIR RISK EVALUATION PROGRAM

The BAAQMD Community Air Risk Evaluation program was initiated in 2004 to evaluate and reduce health risks associated with exposure to outdoor TACs in the Bay Area, primarily DPM. The last update to this program was in 2014. Based on findings of the latest report, DPM was found to account for approximately 85% of the cancer risk from airborne toxics. Carcinogenic compounds from gasoline-powered cars and light-duty trucks were also identified as significant contributors: 1,3-butadiene contributed 4% of the cancer risk-weighted emissions, and benzene contributed 3%. Collectively, five compounds—DPM, 1,3-butadiene, benzene, formaldehyde, and acetaldehyde—were found to be responsible for more than 90% of the cancer risk attributed to emissions. All these compounds are associated with emissions from internal combustion engines. The most important sources of cancer risk-weighted emissions were combustion-related sources of DPM, including on-road mobile sources (31%), construction equipment (29%), and ships and harbor craft (13%). Overall, cancer risk from TAC dropped by more than 50% between 2005 and 2015, when emissions inputs accounted for state diesel regulations and other reductions.

The major contributor to acute and chronic non-cancer health effects in the SFBAAB is acrolein (C₃H₄O). Major sources of acrolein are on-road mobile sources and aircraft near freeways and commercial and military airports.⁵⁷ Currently CARB does not have certified emission factors or an analytical test method for acrolein. Since the appropriate tools needed to implement and enforce acrolein emission limits are not available, the BAAQMD does not conduct health risk screening analysis for acrolein emissions.⁵⁸

3.2.2.3.4 ASSEMBLY BILL 617 COMMUNITY ACTION PLANS

AB 617 was signed into law in July 2017 to develop a new community-focused program to reduce exposure more effectively to air pollution and preserve public health in environmental justice communities. AB 617 directs CARB and all local air districts to take measures to protect communities disproportionately impacted by air pollution through monitoring and implementing air pollution control strategies.

On September 27, 2018, CARB approved BAAQMD’s recommended communities for monitoring and emission reduction planning. The State approved communities for year 1 of the program as well as communities that would move forward over the next 5 years. Bay Area recommendations included all the Community Air Risk Evaluation areas, areas with large sources of air pollution (refineries, seaports,

⁵⁶ Bay Area Air Quality Management District. 2017.

⁵⁷ Bay Area Air Quality Management District (BAAQMD). 2006. Community Air Risk Evaluation Program, Phase I Findings and Policy Recommendations Related to Toxic Air Contaminants in the San Francisco Bay Area. Available at: https://ww2.arb.ca.gov/sites/default/files/classic/ch/communities/ra/westoakland/care_p1_findings_recommendations_v2.pdf. Accessed June 1, 2023.

⁵⁸ BAAQMD. 2010, Air Toxics NSR Program, Health Risk Screening Analysis Guidelines. Available at: https://www.baaqmd.gov/-/media/files/engineering/air-toxics-programs/hrsa_guidelines.pdf. Accessed June 1, 2023.

airports, etc.), areas identified via statewide screening tools as having pollution and/or health burden vulnerability, and areas with low life expectancy.⁵⁹

3.2.2.3.5 CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO

The City/County Association of Governments of San Mateo (C/CAG) is the designated congestion management agency for the county. C/CAG's congestion management plan identifies strategies to respond to future transportation needs, identifies procedures to alleviate and control congestion, and promotes countywide solutions. Pursuant to the EPA's transportation conformity regulations and the Bay Area Conformity State Implementation Plan⁶⁰ (also known as the Bay Area Air Quality Conformity Protocol), the congestion management plan is required to be consistent with the MTC planning process, including regional goals, policies, and projects for the regional transportation improvement program. MTC cannot approve any transportation plan, program, or project unless these activities conform to the State Implementation Plan.

3.2.2.3.6 PLAN BAY AREA 2050

MTC and ABAG adopted Plan Bay Area 2050⁶¹ on October 21, 2021. Plan Bay Area provides transportation and environmental strategies to continue to meet the regional transportation-related GHG reduction goals of Senate Bill 375. Strategies to reduce GHG emissions include focusing housing and commercial construction in walkable, transit-accessible places; investing in transit and active transportation; and shifting the location of jobs to encourage shorter commutes. To achieve MTC's/ABAG's sustainable vision for the Bay Area, the Plan Bay Area land-use concept plan for the region concentrates most new population and employment growth in the region in priority development areas (PDAs). PDAs are transit-oriented, infill development opportunity areas within existing communities. An overarching goal of the regional plan is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth to outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle, vehicle miles traveled (VMT), and associated GHG emissions reductions.

3.2.2.3.7 SAN MATEO COUNTY GENERAL PLAN

The General Plan is the County's vision for future development. It identifies goals, policies, and objectives to govern the physical development of the County. State law requires each city and county to adopt a General Plan with a minimum of seven elements: Land Use, Circulation, Housing, Conservation, Open-Space, Noise, and Safety. The San Mateo General Plan contains 17 chapters addressing each of the required elements and additional elements like transportation and climate element. Many of the general plan policies affect air quality and GHG emissions for the County. For example, the General Plan's Climate Change Element demonstrates San Mateo County's commitment to achieve energy efficiency and mitigate its impact on climate change by reducing GHG emissions consistent with state legislation. This element and the associated Community Climate Action Plan (CCAP) discussed below set goals, policies, and strategies to reduce air quality and environmental impacts.

County of San Mateo 2030 General Plan Policies relevant to air quality are provided below.

⁵⁹ BAAQMD. 2019, April 16, San Francisco Bay Area Community Health Protection Program. Available at: https://www.baaqmd.gov/~/media/files/ab617-community-health/2019_0325_ab617onepager-pdf.pdf?la=en. Accessed June 1, 2023.

⁶⁰ Plan Bay Area. 2021. Bay Area Conformity State Implementation Plan. Available at: https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_Air_Quality_Conformity_Report_October_2021.pdf. Accessed June 1, 2023.

⁶¹ Plan Bay Area. 2021. Plan Bay Area 2050. Available at: https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf. Accessed June 1, 2023.

Applicable Building Energy Policies:

- Policy B-1: Transition to all-electric new constructions.
- Policy B-2: Convert existing buildings to all-electric.
- Policy B-3: Use microgrids to generate local renewable energy and improve resiliency.
- Policy B-4: Pursue integrated opportunities to address climate adaptation and mitigation.

Applicable Transportation Policies:

- Policy T-1: Increase electric vehicle adoption.
- Policy T-2: Encourage urban density and the revision of parking standards, and support bicycle and pedestrian-friendly planning.
- Policy T-3: Implement programs for shared transit that reduce VMT.

Applicable Waste and Consumption Policies:

- Policy W-1: Reduce construction materials and waste.
- Policy W-2: Reduce organics in the waste stream.
- Policy W-3: Reduce inorganic waste sent to landfills

Applicable Working Lands Policy Strategies:

- Strategy L-1: Identify new financing to scale carbon farming.
- Strategy L-2: Support technical assistance, education, and data collection efforts to scale climate beneficial agriculture.
- Strategy L-3: Secure access to key implementation infrastructure to advance climate beneficial agriculture.
- Strategy L-4: Address permitting barriers to implementing climate beneficial agricultural practices.
- Strategy L-5: Ensure agricultural lands are preserved for agricultural production.
- Strategy L-6: Support carbon sequestration and ecological restoration on natural lands.

*Energy and Climate Change Element:*⁶²

Policy 3.1: Identify opportunities for new and existing development to incorporate on-site distributed energy resources into project design and construction.

Policy 3.2: Promote the production of appropriate off-site renewable energy for use in the unincorporated county.

Policy 4.1: Expand transit-oriented and mixed-use development that reduces reliance on vehicular travel.

Policy 4.2: Promote non-motorized and alternative travel.

Policy 5.1: Facilitate the expansion of infrastructure for alternative fuel vehicles.

⁶² San Mateo County. San Mateo County General Plan Chapter 17 Climate Element. Available at: <https://www.smcgov.org/media/73461/download?inline=>. Accessed June 1, 2023.

3.2.2.3.8 COUNTY OF SAN MATEO 2022 COMMUNITY CLIMATE ACTION PLAN

The San Mateo County 2022 CCAP outlines priority actions to achieve a 45% reduction of GHG emissions over 1990 levels by 2030 and carbon neutrality by 2040. The CCAP streamlines the development process by meeting the BAAQMD's requirements for a Qualified GHG Reduction Strategy. The CCAP also supports the goals and policies of AB 32 –The California Global Warming Solutions Act of 2006. The County's strategies and actions are structured around four focus areas: building energy, transportation, waste, and working lands.⁶³

County of San Mateo 2022 CCAP key strategies are provided below.

- Building Energy
 - Electrify 16% of existing buildings by 2030
 - Electrify 100% of existing buildings by 2040
 - Electrify 100% of newly constructed buildings
- Transportation
 - Construct 90 miles of additional bike lanes
 - Reduce vehicle miles traveled by 3%
 - Increase percentage of zero-emission passenger vehicles and equipment to 18% by 2030
 - Increase percentage of zero-emission passenger vehicles and equipment to 100% by 2040
- Waste and Consumption
 - Achieve an 18% reduction in organics in the waste stream by 2025
- Working Lands
 - Sequester 39,000 MTCO₂e of carbon in soils and vegetation by 2030
 - Support ranchers and farmers to plan, implement, and scale climate-beneficial practices on the County's working lands
 - Increase resilience to climate change impacts; improve water quality and soil health; enhance and increase habitat for pollinators and wildlife

3.2.3 Thresholds of Significance

Pursuant to the State CEQA Guidelines, the project would be considered to have a significant effect on air quality if the effects exceed the significance criteria described below:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state AAQS.
3. Expose sensitive receptors to substantial pollutant concentrations, as defined by the BAAQMD.
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Each of these thresholds is discussed under Section 3.2.5, Impacts and Mitigation Measures, below.

⁶³ San Mateo County. 2022. *Community Climate Action Plan*. Available at: <https://www.smcgov.org/media/73456/download?inline=>. Accessed June 1, 2023.

3.2.3.1 Regional Attainment Status

Depending on whether the applicable AAQS are met or exceeded, the air basin is classified on a federal and state level as being in “attainment” or “nonattainment.” The EPA and CARB determine the air quality attainment status of designated areas by comparing ambient air quality measurements from state and local ambient air monitoring stations with the NAAQS and CAAQS (see Table 3.2-3). These designations are determined on a pollutant-by-pollutant basis. Consistent with federal requirements, an unclassifiable/unclassified designation is treated as an attainment designation. The SFBAAB is currently designated a nonattainment area for California and National O₃, California and National PM_{2.5}, and California PM₁₀ AAQS. Therefore, it is considered an “attainment/unclassified” area for all other pollutants.⁶⁴

3.2.3.2 Regional Significance Criteria

The BAAQMD CEQA Air Quality Guidelines were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background air quality information. They also include recommended assessment methodologies for air toxics, odors, and GHG emissions. These thresholds are designed to establish the level at which the Applicant believed air pollution emissions would cause significant environmental impacts under CEQA. The BAAQMD regional significance criteria for projects that exceed the screening thresholds are shown in Table 3.2-4. Criteria for both the construction and operational phases of the project are provided.

Table 3.2-4. BAAQMD Regional (Mass Emission) Criteria Air Pollutant Significance Thresholds

Pollutant	Construction Phase		Operational Phase
	Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀	82 (exhaust)	82	15
PM _{2.5}	54 (exhaust)	54	10
PM ₁₀ and PM _{2.5} fugitive dust	BMPs	None	None

Source: BAAQMD⁶⁵

Projects that do not exceed the emissions in Table 3.2-4 would not cumulatively contribute to health effects in the SFBAAB. If projects exceed the emissions in Table 3.2-4, emissions would cumulatively contribute to the nonattainment status and would contribute to elevating health effects associated with these criteria air pollutants. Known health effects related to O₃ include worsening of bronchitis, asthma, and emphysema and a decrease in lung function. Health effects associated with particulate matter include premature death of people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Reducing emissions would further contribute to reducing possible health effects related to criteria air pollutants.

⁶⁴ EPA. 2023. Green Book. California Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants. Available at: https://www3.epa.gov/airquality/greenbook/anayo_ca.html. Accessed June 1, 2023.

⁶⁵ BAAQMD. 2017a. CEQA Guidelines. May. Available at: http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed May 1, 2023.

However, for projects that exceed the emissions in Table 3.2-4, it is speculative to determine how exceeding the regional thresholds would affect the number of days the region is in nonattainment since mass emissions are not correlated with concentrations of emissions or how many additional individuals in the air basin would be affected by the health effects cited above. The BAAQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals to elevated concentrations of air quality in the SFBAAB and at the present time, it has not provided methodology to assess the specific correlation between mass emissions generated and the effect on health in order to address the issue raised in *Sierra Club v. County of Fresno (Friant Ranch, L.P.) (2018) California 5th District, Case No. S21978* (Friant Ranch).

O₃ concentrations are dependent upon a variety of complex factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. Because of the complexities of predicting ground-level O₃ concentrations in relation to the NAAQS and CAAQS, it is speculative to link health risks to the magnitude of emissions exceeding the significance thresholds. To achieve the health-based standards established by the EPA, the air districts prepare air quality management plans that detail regional programs to attain the AAQS. However, if a project within the BAAQMD exceeds the regional significance thresholds, the project could contribute to an increase in health effects in the SFBAAB until the attainment standards are met in the SFBAAB.

3.2.3.3 CO Hotspots

Congested intersections have the potential to create elevated concentrations of CO, referred to as CO hotspots. The significance criteria for CO hotspots are based on the CAAQS for CO, which are 9.0 parts per million (ppm) (8-hour average) and 20.0 ppm (1-hour average). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology, the SFBAAB is in attainment of the CAAQS and NAAQS, and CO concentrations in the SFBAAB have steadily declined. Because CO concentrations have improved, the BAAQMD does not require a CO hotspot analysis if the following criteria are met:

- The project is consistent with an applicable congestion management program established by the County Congestion Management Agency for designated roads or highways, the regional transportation plan, and local congestion management agency plans.
- The project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The 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).

3.2.3.4 Toxic Air Contaminants

The BAAQMD's significance thresholds for local community risk and hazard impacts apply to both the siting of a new source and to the siting of a new receptor. Local community risk and hazard impacts are associated with TACs and PM_{2.5} because emissions of these pollutants can have significant health impacts at the local level. The proposed project would generate TACs and PM_{2.5} during construction activities that could elevate concentrations of air pollutants at the nearby residential, daycare, and school-based sensitive receptors. The thresholds for construction-related local community risk and hazard impacts are the same as for project operations. BAAQMD has adopted screening tables for air toxics evaluation during construction. Construction-related TAC and PM_{2.5} impacts should be addressed on a case-by-case

basis, taking into consideration the specific construction-related characteristics of each project and proximity to off-site and on-site receptors, as applicable.

Project-level emissions of TACs or PM_{2.5} from individual sources that exceed any of the thresholds listed below are considered a potentially significant community health risk:

- An excess cancer risk level of more than 10 in 1 million, or a non-cancer (i.e., chronic or acute) HI greater than 1.0 would be a significant project contribution, and
- An incremental increase of greater than 0.3 micrograms per cubic meter (µg/m³) annual average PM_{2.5} from a single source would be a significant project contribution, or
- Compliance with Qualified Community Risk Reduction Plan.

Cumulative sources represent the combined total risk values of each of the individual sources within the 1,000-foot evaluation zone. A project would have a cumulative considerable impact if the aggregate total of all past, present, and foreseeable future sources within a 1,000-foot radius from the fence line of a source or location of a receptor, plus the contribution from the project, exceeds any of the following:

- An excess cancer risk level of more than 100 in 1 million or a chronic non-cancer HI (from all local sources) greater than 10.0, and
- 0.8 µg/m³ annual average PM_{2.5}, or
- Compliance with Qualified Community Risk Reduction Plan.

In February 2015, OEHHA adopted HRA guidance that includes several efforts to be more protective of children's health. These updated procedures include the use of age sensitivity factors to account for the higher sensitivity of infants and young children to cancer causing chemicals, and age-specific breathing rate.⁶⁶

3.2.3.5 Odors

The BAAQMD's thresholds for odors are qualitative based on the BAAQMD's Regulation 7, *Odorous Substances*. This rule places general limitations on odorous substances and specific emission limitations on certain odorous compounds. Odors are also regulated under BAAQMD Regulation 1, Rule 1-301, *Public Nuisance*, which states that no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health, or safety of any such persons or the public, or which cause, or has a natural tendency to cause injury or damage to business or property. Under the BAAQMD's Rule 1-301, a facility that receives three or more violation notices within a 30-day period can be declared a public nuisance. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors. The BAAQMD has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants. For a plan-level analysis, the BAAQMD requires:

- Identification of potential existing and planned location of odors sources.
- Policies to reduce odors.

⁶⁶ Office of Environmental Health Hazard Assessment (OEHHA). 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments 2015*. Available at: http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf. Accessed June 1, 2023.

3.2.4 Impact Assessment and Methodology

This air quality evaluation was prepared in accordance with the requirements of CEQA to determine if significant air quality impacts are likely to occur with the proposed project's construction and operations. The BAAQMD has published the CEQA Air Quality Guidelines, which provide local governments with guidance for analyzing and mitigating air quality impacts; these guidelines were used in this analysis. Regional emissions modeling was completed and analyzed as detailed below for both construction and operations. Localized emissions modeling was completed and analyzed as detailed below for construction.

3.2.4.1 Regional Emissions Modeling

Criteria air pollutant emissions modeling is included in Appendix C, *Air Quality and Greenhouse Gas Technical Report*, of this Draft EIR. The proposed project criteria air pollutant emissions inventory was modeled using the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.13 and includes the following sectors:

- On-Road Transportation. Transportation emissions are based on project-specific trip estimates and the default CalEEMod vehicle emission rates for worker, vendor, and haul trucks during construction and operation.
- Area Sources. Area sources generated from use of consumer products, architectural coating, landscape maintenance equipment, and cleaning supplies during operations are based on CalEEMod Version 2022.1.1.13 default emission rates and the assumed square footage of the buildings. However, the project would not use natural gas for hearths, and emissions for the hearths are based on the emissions rates for electric hearths in CalEEMod.
- Energy. Criteria air pollutant emissions from energy use (electricity used for cooking, heating, etc.) during operations are based on the CalEEMod defaults for condo/townhouse land uses. However, the project would not use natural gas, and emissions for energy use are based on the emissions rates for electricity in CalEEMod. Additionally, buildings are assumed to comply with the latest Building Energy Efficiency Standards.
- Construction. Emissions modeling included emissions generated during the project which have been grouped into six phases in CalEEMod based on the types of equipment and workload: 1) demolition (including removal of the existing impervious surface of approximately 20,840 cubic yards and tree removal/wood chip dispersion); 2) site preparation (including site clearing, leveling, and transport of building materials); 3) grading (excavation, import approximately 7,500 cubic yards of fill); 4) building construction (including surveying, excavation/leveling for foundations, hydrostatic testing, watermain connections tested and connected, utility trenches, importation of building materials for residential buildings and the Community Building, all building construction); 5) paving (paving of on-site parking and roads and site concrete [curb, gutter, flatwork, etc.]); and 6) finishing (including finishing activities, architectural coatings, final landscaping, and removal of temporary fencing and erosion control). The project is within a 11.02-acre parcel, however, the total acreage involved for the Cypress Point Housing development is approximately 5 acres. Two CalEEMod land uses were used 'Residential – Condo/Townhouse' for the 71 dwelling units and 'Parking – Parking lot' for the 142 parking spots. This analysis includes quantification of construction and operation off-road equipment, fugitive dust, and on-road mobile sources, as well as the operational emissions for the affordable housing units.

Modeling input data were based on this anticipated construction schedule and phasing. Construction equipment and usage required for each phase were obtained using CalEEMod

defaults for the land-use types which make up the project site, information provided by MidPen, and default parameters contained in the model for the project site (San Mateo County) and land uses. The construction duration is assumed to be approximately 18 months, from December 2024 until June 2026. Project construction would consist of different activities undertaken in phases, through to the operation of the project.

3.2.4.2 Localized Emissions Modeling

A construction HRA from TACs and PM_{2.5} associated with construction equipment exhaust was prepared for the project in 2018 and is included in Appendix C of this Draft EIR. The 2018 HRA results and conclusions remain representative of the project's potential localized impact and the updated 2023 CalEEMod modeling. Sources evaluated in the HRA include off-road construction equipment and the on-road worker, vendor, and haul truck traffic near the project site. Modeling is based on the EPA's Industrial Source Complex Short Term (ISCST3) air dispersion modeling program and the latest HRA guidance from the OEHHA to estimate excess lifetime cancer risks, chronic non-cancer hazard indices, and the PM_{2.5} maximum annual concentrations at the nearest maximum exposed off-site sensitive receptors and assumes 24-hour outdoor exposure with risks averaged over a 70-year lifetime.

DPM emissions were based on the CalEEMod construction runs, using annual exhaust PM₁₀ construction emissions. The PM_{2.5} emissions were taken from the CalEEMod output for total annual PM_{2.5}. The project was assumed to take place over 18 months. The off-site hauling emission rates were adjusted to evaluate localized emissions from the haul route within 0.5 mile of the project site. Construction emissions were modeled as occurring daily between 7 a.m. and 4 p.m., when most construction activity would occur.

Air dispersion modeling using the EPA's AMS/EPA Regulatory Model (AERMOD) program was conducted to assess the impact of emitted compounds on sensitive receptors. The model is approved by BAAQMD for estimating ground-level impacts from point and fugitive sources in simple and complex terrain. Meteorological data obtained from the BAAQMD for the nearest representative meteorological station (Fort Funston, San Francisco) were used to represent local weather conditions and prevailing winds.

3.2.5 Impacts and Mitigation Measures

Impact AQ-1: Would the project conflict with or obstruct implementation of the applicable air quality plan? (Less than Significant)

The 2017 Clean Air Plan is the current applicable regional Air Quality Plan (AQP) for the SFBAAB.⁶⁷ The primary goals of the 2017 Clean Air Plan are to protect public health and protect the climate, and the plan acknowledges that the BAAQMD's two stated goals of protection are closely related. As such, the 2017 Clean Air Plan identifies a wide range of control measures intended to decrease both criteria pollutants and GHG emissions. Whether the project would conflict with the 2017 Clean Air Plan can be determined if the project: 1) does not support the goals of the 2017 Clean Air Plan; 2) does not include applicable control measures from the 2017 Clean Air Plan; and 3) would disrupt or hinder implementation of control measures from the 2017 Clean Air Plan. The primary goals of the Bay Area 2017 Clean Air Plan are to: attain air quality standards; reduce population exposure and protect public health in the Bay Area; and reduce GHG emissions and protect the climate.

The control strategies of the 2017 Clean Air Plan include control measures in the following categories: Stationary Source, Transportation, Energy, Building, Agriculture, Natural and Working Lands, Waste

⁶⁷ BAAQMD. 2017

Management, Water, and Super-GHG Pollutants. The proposed project's compliance with each of these control measures is discussed below. The control measures are geared toward traditional land uses (e.g., residential, commercial, industrial uses) and buildings, but not all are applicable to individual projects. Below are the applicable measures to this project.

Transportation Control Measures. The BAAQMD identifies Transportation Control Measures as part of the 2017 Clean Air Plan to decrease emissions of criteria pollutants, TACs, and GHGs by reducing the demand for motor vehicle travel, promoting efficient vehicles and transit service, decarbonizing transportation fuels, and electrifying motor vehicles and equipment. The proposed project would provide housing near existing business, commercial, and employment centers in San Mateo County, reducing the demand for travel by single occupancy vehicles. In addition, the proposed project would install electric vehicle charging stations and parking stalls that can charge electric vehicles. Therefore, the proposed project would promote the use of zero emissions vehicles by the project residents and would promote initiatives to reduce vehicle trips and VMT by design as well as by implementing MM-TR-2 provided in Section 3.10, Transportation, of this EIR; see Section 3.10 for additional discussion. Therefore, the proposed project would not conflict with the identified Transportation and Mobile Source Control Measures of the 2017 Clean Air Plan.

Building Control Measures. The BAAQMD has authority to regulate emissions from certain sources in buildings, such as boilers and water heaters, but has limited authority to regulate the buildings themselves. Therefore, the strategies in the control measures for this sector focus on working with local governments that do have authority over local building codes to facilitate the adoption of best control practices and policies. The proposed project would be required to comply with the latest Title 24 standards of the CCR, established by the California Energy Commission, regarding energy conservation and green building standards. Therefore, the proposed project would not conflict with any of the Building Control Measures of the 2017 Clean Air Plan.

Waste Management Control Measures. The Waste Management Control Measures focus on reducing or capturing methane emissions from landfills and composting facilities, diverting organic materials away from landfills, and increasing waste diversion rates through efforts to reduce, reuse, and recycle. The proposed project would comply with local requirements for waste management (e.g., recycling and composting services). Therefore, the proposed project would be consistent with the Waste Management Control Measures of the 2017 Clean Air Plan.

The BAAQMD has established quantitative significance thresholds for construction and operational emissions at a level at which the cumulative impact of exceeding these thresholds would have an adverse impact on the SFBAAB's ability to attain or maintain air quality standards. The BAAQMD has established health and hazards thresholds to help protect public health. As discussed below, construction and operation of the proposed project would not result in the generation of criteria air pollutants or TACs that would exceed BAAQMD thresholds of significance. Therefore, the proposed project would not conflict with the 2017 Clean Air Plan goals.

As discussed above, the proposed project would generally implement the applicable measures outlined in the 2017 Clean Air Plan, including the Transportation Control Measures. Therefore, the proposed project would not disrupt or hinder implementation of a control measure from the 2017 Clean Air Plan. The development of the project's 71 residential units would improve the jobs/housing balance and jobs/housing fit by providing preference for those who live or work on the San Mateo Coast, redispersing existing county residences, and reducing distances traveled between work and home. The proposed project would not result in substantive employment growth; one on-site property manager is anticipated. As such, this impact would be less than significant.

Impact AQ-2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard? (Less than Significant with Mitigation)

The BAAQMD’s thresholds of significance represent the allowable emissions a project can generate without generating a cumulatively considerable contribution to regional air quality impacts. Therefore, a project that would not exceed the BAAQMD thresholds of significance on a project level also would not be considered to result in a cumulatively considerable contribution to these regional air quality impacts. The region is in nonattainment for federal and state O₃ standards, state PM₁₀ standards, and federal and state PM_{2.5} standards. Impacts related to construction and operation of the proposed project are addressed separately below.

Construction

The project implementation would generate emissions of criteria air pollutants during construction. The estimated unmitigated emissions from construction of the project are summarized in Table 3.2-5. The detailed assumptions and calculations, as well as CalEEMod outputs, are provided in Appendix C.

Table 3.2-5. Unmitigated Construction Emissions Summary

Construction Year	Unmitigated Construction Emissions Summary					
	ROG	NOx	CO	PM ₁₀	PM _{2.5}	SO ₂
Pollutant Emission (pounds per day)						
2024 peak daily emission	1.71	21.83	24.87	5.69	1.34	0.08
2025 peak daily emission	5.01	53.11	47.43	19.37	7.00	0.30
2026 peak daily emission	33.50	24.40	32.67	8.98	1.86	0.07
BAAQMD significance thresholds	54	54	N/A	82	54	N/A
Threshold exceeded?	No	No	N/A	No	No	N/A
Pollutant Emission (tons per year)						
2024 maximum annual	0.02	0.24	0.27	0.01	0.01	0.001
2025 maximum annual	0.24	2.70	2.97	0.08	0.29	0.01
2026 maximum annual	0.58	0.88	1.18	0.03	0.07	0.002
BAAQMD significance thresholds	10	10	N/A	15	10	N/A
Threshold exceeded?	No	No	N/A	No	No	N/A

Source: Emissions were quantified using CalEEMod version 2022.1.1.13.⁶⁸

NA = Not applicable, no threshold

Model results (summer, winter, and annual) and assumptions are provided in Appendix C.

As Table 3.2-5 shows, estimated unmitigated construction emissions for all pollutants are below BAAQMD significance thresholds. The combined construction emissions from all components of the proposed project are below the recommended BAAQMD thresholds of significance. Therefore, project construction would have a less-than-significant impact. However, mitigation measures and BMPs have been included to further reduce localized impacts. The estimated mitigated emissions from construction of the project are summarized in Table 3.2-6.

⁶⁸ California Air Pollution Control Officers Association (CAPCOA). 2022. California Emission Estimator Model (CalEEMod) and User Guide. Version 2022.1.1.13. Available at: <http://www.caleemod.com/>. Accessed May 20, 2023.

Table 3.2-6. Mitigated Construction Emissions Summary

Construction Year	Mitigated Construction Emissions Summary					
	ROG	NOx	CO	PM ₁₀	PM _{2.5}	SO ₂
Pollutant Emission (pounds per day)						
2024 peak daily emission	1.71	21.83	24.87	3.30	1.08	0.08
2025 peak daily emission	5.01	53.11	47.43	10.80	4.19	0.30
2026 peak daily emission	2.80	24.40	32.67	3.92	1.35	0.07
BAAQMD significance thresholds	54	54	N/A	82	54	N/A
Threshold exceeded?	No	No	N/A	No	No	N/A
Pollutant Emission (tons per year)						
2024 maximum annual	0.02	0.24	0.27	0.04	0.01	0.001
2025 maximum annual	0.24	2.70	2.97	0.50	0.18	0.01
2026 maximum annual	0.58	0.88	1.18	0.14	0.05	0.002
BAAQMD significance thresholds	10	10	N/A	15	10	N/A
Threshold exceeded?	No	No	N/A	No	No	N/A

Source: Emissions were quantified using CalEEMod version 2022.1.1.13.⁶⁹

NA = Not applicable, no threshold

Model results (summer, winter, and annual) and assumptions are provided in Appendix C.

As presented above, the project would not violate any air quality significance thresholds or contribute substantially to an existing or projected air quality violation. The impact is less than significant, and no mitigation is required. However, for all proposed projects, the BAAQMD recommends the implementation of BMPs, regardless of whether construction-related emissions exceed applicable thresholds of significance. In addition, several other basic measures to control dust and exhaust during construction are included as part of **Mitigation Measure (MM) AQ-2a and 2b**. As such, to ensure construction emission impacts are less than significant, the proposed project would apply the following mitigation measures during construction activities:

AQ-2 Mitigation Measure Recommendations

As discussed, the impact is less than significant, and no mitigation is required. However, the proposed project would apply the following mitigation measures during construction activities to further reduce impacts.

MM-AQ-2a Implement BAAQMD BMPs

During any construction period ground disturbance, the applicant shall ensure that the general contractor implements measures to control dust and exhaust. MidPen would include terms in all construction contracts related to the Cypress Point project that require contractors to implement the following BMPs:

- Exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, unpaved access roads) shall be watered with non-potable water two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

⁶⁹ CAPCOA, 2022.

- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All roadways, driveways, and sidewalks shall be paved as soon as possible.
- Idling times shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure in Title 13, Section 2485 of the CCR). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- A publicly visible sign shall be posted with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours of a complaint or issue notification. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

Implementation of **MM-AQ-2a** would ensure that the recommended BAAQMD BMPs are instated, which the BAAQMD considers sufficient to reduce this impact to a level of less than significant.

To reduce localized impacts from DPM and PM_{2.5} to less than significant, the HRA included **MM-AQ-2b** to lower diesel particulate matter exhaust emissions from construction equipment.

MM-AQ-2b Use Low Diesel Particulate Matter Exhaust Construction Equipment

Prior to initiating any construction activities, MidPen or their contractors shall develop a plan demonstrating that the off-road equipment used on-site to construct the project would achieve a fleet-wide average of at least 78% reduction in DPM emissions compared to the emissions calculated for the project without mitigation. One feasible plan to achieve this reduction would include the following: all mobile diesel-powered off-road equipment larger than 25 horsepower and operating on-site for more than 2 days shall meet, at a minimum, EPA particulate matter emissions standards for Tier 4 engines or equivalent. Note that the construction contractor could use other measures to minimize construction period DPM emissions to reduce the estimated cancer risk below the thresholds. The use of equipment that meets EPA Tier 2 standards and includes CARB-certified Level 3 Diesel Particulate Filters or alternatively fueled equipment (i.e., non-diesel) would meet this requirement. Other measures may be the use of added exhaust devices, or a combination of measures, provided that these measures are approved by the County and demonstrated to reduce community risk impacts to less than significant.

The effectiveness of proposed mitigation measures to reduce impacts related to community risk was evaluated by comparing DPM and PM_{2.5} emissions between the unmitigated and mitigated CalEEMod runs and estimating mitigated risk values based on the unmitigated AERMOD run. Therefore, with mitigation, the computed maximum increased lifetime residential cancer risk from construction, assuming infant exposure, would be 7.3 in 1 million or less, and the maximum annual PM_{2.5} concentration would be less than 0.1 µg/m³. The cancer risk would be below the BAAQMD threshold of 10 in 1 million for cancer risk and the annual PM_{2.5} concentration would be below the BAAQMD threshold of 0.3 µg/m³.

After implementation of these recommended measures, the project would have a less-than-significant impact with respect to community risk caused by construction activities.

Operations

Project operations would generate VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} emissions from mobile sources, including vehicle trips, and area sources, including the use of consumer products, architectural coatings for repainting, and landscape maintenance equipment, water, waste, and energy sources. The estimated emissions from operation of the project are summarized in Table 3.2-7. Complete details of the emissions calculations are provided in Appendix C.

Table 3.2-7. Unmitigated Operational Emissions Summary

Operation Year 2027	Unmitigated Operational Emissions Summary					
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}	SO ₂
Pollutant Emission (pounds per day)						
Mobile	1.78	1.60	20.60	2.39	0.44	0.06
Area	2.05	0.039	4.03	0.001	0.002	0.0002
Energy	0	0	0	0	0	0
Total	3.83	1.64	24.62	2.39	0.44	0.06
BAAQMD significance thresholds	54	54	N/A	82	54	N/A
Threshold exceeded?	No	No	N/A	No	No	N/A
Pollutant Emission (tons per year)						
Mobile	0.28	0.29	3.08	0.39	0.07	0.01
Area	0.34	0.003	0.36	0.0001	0.0002	0.00002
Energy	0	0	0	0	0	0
Total	0.62	0.30	3.44	0.39	0.07	0.01
BAAQMD significance thresholds	10	10	N/A	15	10	N/A
Threshold exceeded?	No	No	N/A	No	No	N/A

Source: Emissions were quantified using CalEEMod version 2022.1.⁷⁰

NA = Not applicable, no threshold

Model results (summer, winter, and annual) and assumptions are provided in Appendix C.

As Table 3.2-7 shows, estimated unmitigated operational emissions for all pollutants are below BAAQMD significance thresholds. Also, project operations would meet the BAAQMD CO hotspot analysis screening criteria regarding traffic volumes at any affected intersection. The project would be consistent with the C/CAG congestion management program.⁷¹ Project-generated traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour and project-generated 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). Therefore, the proposed project would not need a CO hotspot analysis. Therefore, based on the above criteria, the proposed project would have a less-than-significant impact related to CO hotspots.

⁷⁰ CAPCOA, 2022.

⁷¹ C/CAG. 2021. Congestion Management Program. 2021 Available at: https://ccag.ca.gov/wp-content/uploads/2022/01/258-018-San-Mateo-CMP-Report_Final.pdf. Accessed July 24, 2023.

The combined construction emissions and combined operational emissions from all components of the proposed project are below the recommended BAAQMD thresholds of significance for all pollutants, including O₃, PM₁₀, and PM_{2.5} for which the SFBAAB is currently designated nonattainment. Therefore, the project would not be anticipated to exceed any significance threshold and would have a less than significant cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state AAQS.

Impact AQ-3: *Would the project expose sensitive receptors to substantial pollutant concentrations, as defined by the Bay Area Air Quality Management District? (Less Than Significant with Mitigation)*

While criteria pollutants (such as particulate matter [PM₁₀ and PM_{2.5}]) are a concern at the regional level, community risk impacts from TACs and annual PM_{2.5} exposure to nearby sensitive receptors are also a localized concern. While the discussion under Impact AQ-2 above addresses particulate matter at the regional level, this impact addresses particulate matter at the localized level. Impacts related to increased community risk can occur either by introducing new sensitive receptors, such as residences, in proximity to existing sources of TACs or by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity.

The BAAQMD CEQA Air Quality Guidelines recommend using a 1,000-foot screening radius around a project site for purposes of identifying community health risk from siting a new sensitive receptor or a new source of TACs. Operation of the project is not expected to cause any localized emissions that could expose sensitive receptors to unhealthy air pollutant levels, because no stationary sources of TACs, such as generators, are proposed as part of the project. However, the proposed project would introduce new sensitive receptors to the area in the form of future residences, which could be exposed to existing sources of TACs. Project-related construction activity would temporarily generate dust and equipment exhaust that could affect nearby sensitive receptors that include residences.

This analysis therefore evaluates the following community risk impacts:

- Exposure of project residents to existing mobile sources of TACs;
- Exposure of project residents to existing stationary sources of TACs; and
- Exposure of nearby existing residences to project construction-related TACs.

Existing Mobile Sources of TACs

BAAQMD provides a Highway Screening Analysis tool that uses Google Earth to identify estimated risk and hazard impacts from highways throughout the Bay Area. Cancer risk, chronic and acute HI, and annual PM_{2.5} values at various distances are estimated for different highway segments.⁷² The tool uses the average annual daily traffic count, fleet mix and other modeling parameters specific to that segment of the highway. Impacts from traffic on SR-1 (Link 41, at 6 feet of elevation), which is 150 feet or greater west of the project site, were identified using this tool. The estimated cancer risk was adjusted using a factor of 1.3744 to account for new OEHHA guidance. This factor was provided by BAAQMD for use with their CEQA screening tools. The cancer risk at the project site was found to be 5.9 in 1 million, which is below the significance threshold of 10 in 1 million. The PM_{2.5} concentration was found to be 0.06 µg/m³, which is below the significance threshold of 0.3 µg/m³, and the HI is 0.01, which is below the significance threshold of 1.0. This would be a less-than-significant impact, and no mitigation is required.

⁷² Illingworth & Rodkin, 2018.

Existing Stationary Sources of TACs

The locations of any permitted stationary sources of air pollution near the project site were identified using BAAQMD's Stationary Source Risk and Hazard Analysis Tool,⁷³ a mapping tool that uses Google Earth. This tool identified the location of one stationary source and its estimated risk and hazard screening values. The risk values were then adjusted with the appropriate distance multiplier values provided by BAAQMD. The 2012 estimated risk values were adjusted using the factor of 1.3744.

- Plant 14546, which is an emergency back-up generator operated by Sewer Authority Mid-Coast, located at 16th Street and Cabrillo Highway, is approximately 450 feet northwest of the project site. At BAAQMD's direction, risk and PM_{2.5} concentrations from the facility were adjusted based on BAAQMD's Distance Adjustment Multiplier Tool for Diesel Internal Combustion Engines. According to the BAAQMD screening data (and adjusted for the 450-foot distance and 2015 OEHHA methodology), this facility would result in an adjusted lifetime cancer risk of 2.9 in 1 million, PM_{2.5} concentration of less than 0.01 µg/m³, and a less than 0.01 HI, which would all be below BAAQMD thresholds of significance. This would be a less-than-significant impact, and no mitigation is required.

Community risk impacts on project residents from combined sources are reported in the HRA, and as shown, risk from combined operational TAC sources at the project site would be below the BAAQMD cumulative thresholds of 100 in 1 million and 0.8 µg/m³, respectively.⁷⁴ The HI would also be cumulatively less than significant. This would be a less-than-significant impact, and no mitigation is required.

Project Construction-Related TACs

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM₁₀ and PM_{2.5}. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if BMPs are employed to reduce these emissions. MM-AQ-2a would implement BAAQMD-required BMPs.

Construction equipment and associated heavy-duty truck traffic also generates diesel exhaust, which is a known TAC. Construction exhaust emissions may pose community risks for sensitive receptors such as nearby residents. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to PM_{2.5}. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. A community risk assessment of the project construction activities was conducted to evaluate potential health effects on sensitive receptors at these nearby residences from construction emissions of DPM and PM_{2.5}. The closest sensitive receptors to the project site are located adjacent to the north, east, and south sides of the project site. Emissions and dispersion modeling were conducted to predict the off-site DPM concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be evaluated.

⁷³ BAAQMD. 2023. Stationary Source Screening Map. Available at: <https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=845658c19eae4594b9f4b805fb9d89a3>. Accessed June 1, 2023.

⁷⁴ Illingworth & Rodkin, 2018.

In 2018, CalEEMod-calculated construction emissions were input to the EPA ISCST3 dispersion model with project and receptor coordinates and meteorological data. DPM and PM_{2.5} concentrations at modeled receptor locations were then used to estimate community risk impacts (cancer risk, annual PM_{2.5} concentration, and HI) from project construction using the detailed methodology contained in the HRA.⁷⁵

The 2018 CalEEMod model estimated total annual PM₁₀ exhaust emissions (assumed to be DPM) from off-road construction equipment and from on-road vehicles (haul truck travel during demolition, worker travel, and vendor deliveries during construction). An average trip length of 0.5 mile was used to represent vehicle travel while at or near the construction site. It was assumed that these emissions from on-road vehicles traveling at or near the site would occur at the construction site. In 2018, total emissions of PM₁₀ exhaust from all stages of project construction were estimated to be 0.217 tons (434 pounds). Total emissions of PM_{2.5} emissions from all stages of project construction were estimated to be 0.289 tons (578 pounds). In 2023, the CalEEMod model was updated using the most recent version of CalEEMod and project assumptions. The 2023 total emissions of PM₁₀ exhaust from all stages of project construction and total miles traveled were estimated to be 0.123 tons (246 pounds). When including total emissions of PM₁₀ exhaust from all stages of project construction and emissions emitted within 0.5 miles of the project, PM₁₀ exhaust emissions were estimated to be 0.116 tons (232 pounds). The total PM_{2.5} emissions from all stages of project construction and total miles traveled were estimated to be 0.243 tons (486 pounds). When including total PM_{2.5} emissions from all stages of project construction and emissions emitted within 0.5 miles of the project, PM_{2.5} emissions were estimated to be 0.173 tons (346 pounds). The current CalEEMod-estimated emissions are similar to the 2018 Report⁷⁶ CalEEMod-estimated emissions used in the EPA ISCST3 dispersion model. Therefore the 2018 Report annual DPM and PM_{2.5} concentrations at neighboring residences from construction activities during the expected 2018 to 2019 construction period calculated using the EPA ISCST3 dispersion model are used to determine significance in this analysis. All modeling assumptions and details are provided in Appendix C.

The maximum concentrations occurred at a residence adjacent to the northern boundary of the project site at the 1.5-meter receptor height. Using the maximum annual modeled DPM concentrations, the maximum increased cancer risk at the location of the maximally exposed individual (MEI) was calculated using BAAQMD-recommended methods. The cancer risk calculations are based on applying the BAAQMD-recommended age sensitivity factors to the TAC concentrations. Age sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. BAAQMD-recommended exposure parameters were used for the cancer risk calculations. To be conservative, infant and adult exposures were assumed to occur at all residences through the entire construction period. Results of this assessment indicate that the maximum increased residential cancer risks would be 45.9 in 1 million for an infant exposure and 0.8 in 1 million for an adult exposure. The maximum residential excess cancer risk would be above the significance threshold of 10.0 in 1 million, so this impact would be significant. Implementation of **MM-AQ-2a** and **MM-AQ-2b** would reduce this impact to less than significant.

The maximum modeled annual PM_{2.5} concentration, which is based on combined exhaust and fugitive dust emissions, was 0.41 µg/m³. This maximum annual PM_{2.5} concentration would be above the BAAQMD significance threshold of greater than 0.3 µg/m³. The location of the receptor with the maximum PM_{2.5} concentration is the same as where the maximum TAC impact would occur. Implementation of **MM-AQ-2a** and **MM-AQ-2b** would reduce this impact to less than significant.

⁷⁵ Illingworth & Rodkin, 2018.

⁷⁶ Illingworth & Rodkin, 2018.

The maximum modeled annual residential DPM concentration (i.e., from construction exhaust) was $0.16 \mu\text{g}/\text{m}^3$. The maximum computed HI based on this DPM concentration was 0.03, which is lower than the BAAQMD significance criterion of an HI greater than 1.0. This would be a less-than-significant impact, and no mitigation is required.

The cumulative impacts of TAC emissions from three sources (construction of the project, the nearby stationary source, and traffic on SR-1) on the construction MEI are summarized in Table 3.2-4 of the 2018 Report⁷⁷ and show that the sum of impacts from combined sources at the construction MEI would be below the BAAQMD threshold, and therefore would be less than significant.

Without the implementation of mitigation measures, the project would have a significant impact with respect to community risk caused by project construction activities, since the estimated cancer risk and $\text{PM}_{2.5}$ concentrations are above the single source thresholds of 10.0 per 1 million for cancer risk and a concentration of greater than $0.3 \mu\text{g}/\text{m}^3$ for the annual $\text{PM}_{2.5}$. Implementation of MM-AQ-2a and MM-AQ-2b would reduce this impact to less than significant. The HRA in Appendix C includes the emission calculations and source information used in the modeling and the cancer risk calculations, as well as the updated CalEEMod assumptions and emissions.

MM-AQ-2a requires that during any construction period ground disturbance, MidPen or their contractors shall ensure that measures to control dust and exhaust are implemented in compliance with the BAAQMD best management practices. For all proposed projects, the BAAQMD recommends the implementation of BMPs, regardless of whether construction-related emissions exceed applicable thresholds of significance.

MM-AQ-2b requires that prior to initiating any construction activities, MidPen or their contractors shall develop a plan demonstrating that the off-road equipment used on-site to construct the project would achieve a fleet-wide average of at least 78% reduction in DPM emissions compared to the emissions calculated for the project without mitigation (434 pounds of DPM emissions). There are several options outlined in the mitigation measure including: all mobile, diesel-powered off-road equipment larger than 25 horsepower and operating on-site for more than 2 days shall meet, at a minimum, EPA particulate matter emissions standards for Tier 4 engines or equivalent; the use of equipment that meets EPA Tier 2 standards and includes CARB-certified Level 3 Diesel Particulate Filters; or alternatively fueled equipment (i.e., non-diesel). The first mitigated CalEEMod model in Appendix C uses Tier 4 interim engines for all mobile, diesel-powered off-road equipment larger than 25 horsepower and operating on-site for more than 2 days which reduced DPM by 69%. The second mitigated CalEEMod model uses Tier 2 standards and includes CARB-certified Level 3 Diesel Particulate Filters for all mobile, diesel-powered off-road equipment larger than 25 horsepower and operating on-site for more than 2 days which reduced DPM by 78%.

Therefore, implementation of **MM-AQ-2a** and **MM-AQ-2b** would reduce this impact to less than significant.

Impact AQ-4: *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? (Less than Significant)*

The project would not be a source of any odors during operations. However, if objectionable odors are experienced by neighbors or residents, they can make a complaint to the San Mateo County Health Environmental Health Services.⁷⁸ During construction, a limited number of diesel engines would be

⁷⁷ Illingworth & Rodkin. 2018.

⁷⁸ San Mateo County Health Environmental Health Services. 2023. Report a Problem Online Complaint Form. Available at: <https://ehesubmit.smchealth.org/servlet/guest?service=0&formId=87&saveAction=2&enterprise=9>. Accessed June 1, 2023.

operated on the project site for limited durations. Diesel exhaust and VOCs from these diesel engines would be emitted during construction of the proposed project, which are objectionable to some; however, the duration of construction activities is expected to last approximately 18 months, emissions would disperse rapidly from the project site, and diesel exhaust odors would be consistent with existing vehicle odors in the area. Considering this information, construction and operation of the proposed project would not create other emissions or odors adversely affecting a substantial number of people; impacts would be less than significant.

3.2.6 Cumulative Impacts

Impact C-AQ-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to air quality? (Less than Significant)

The cumulative setting for air quality includes the SFBAAB. The SFBAAB is designated as a nonattainment area for state standards of O₃, PM₁₀, and PM_{2.5} and federal standards of O₃ and PM_{2.5}; an attainment and serious maintenance area for federal PM₁₀ standards; and unclassified or attainment for all other pollutants. Cumulative growth in population and vehicle use could inhibit efforts to improve regional air quality and attain the AAQS. The BAAQMD CEQA Air Quality Guidelines do not include separate significance thresholds for cumulative construction and operational emissions. However, with respect to regional air pollution, the development of the project would improve the jobs/housing balance and jobs/housing fit by providing preference for those who live or work on the San Mateo Coast, redispersing existing county residences and reducing distances traveled between work and home. Therefore, the project would not affect the 2017 Clean Air Plan population forecasts. As described in the threshold discussion above, the project would also be consistent with the appropriate 2017 Clean Air Plan control measures, which are provided to reduce air quality emissions for the entire Bay Area region. Additionally, the previous threshold discussion addresses cumulative impacts and demonstrates that the project would not exceed the applicable BAAQMD thresholds for construction or operations. The BAAQMD CEQA Air Quality Guidelines note that the nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size by itself to result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. Consistency with the 2017 Clean Air Plan control measures would ensure that the project would not cumulatively contribute to air quality impacts in the SFBAAB; therefore, impacts would be less than significant.

3.3 BIOLOGICAL RESOURCES

This section evaluates potential impacts to biological resources resulting from implementation of the project. The evaluation of biological resources is based on the following technical studies:

- *Biological Impact Report for the Cypress Point Affordable Housing Community Project, Moss Beach, San Mateo County, California*, SWCA Environmental Consultants (SWCA), 2023 (Appendix D).⁷⁹
- *Arborist Report, Cypress Point, Moss Beach, CA*, HortScience | Bartlett Consulting, 2022 (Appendix E).⁸⁰

The biological impact report (BIR) included an extensive literature search of the 2-mile area surrounding the project site, followed by a field survey conducted on April 3, 2023. The field survey included the project site and a 200-foot buffer surrounding the site (biological survey area [BSA]).

3.3.1 Existing Conditions

The proposed project is located on an 11.02-acre parcel adjacent to the northeast corner of Carlos and Sierra Streets in the unincorporated community of Moss Beach, San Mateo County, California. The topography within the project site is generally flat and gently slopes westward toward the Pacific Ocean. Elevations within the project site range from approximately 95 to 205 feet above mean sea level. The project site consists of developed uses, including neighboring residences and roadways, water tanks and an associated maintenance structure operated by Montara Water and Sanitary District (MWSD), concrete remnants of military facilities that are scattered throughout the project site, and dirt access roads that travel around the perimeter of the project site, and undeveloped land dominated by a mix of native and non-native vegetation.

3.3.1.1 Vegetation and Wildlife

Vegetative communities on the project site are classified as Monterey cypress–Monterey pine woodland stands (*Hesperocyparis macrocarpa*–*Pinus radiata* Forest and Woodland Semi-Natural Alliance), perennial rye grass fields, coyote brush scrub, and urban/developed.

3.3.1.1.1 MONTEREY CYPRESS–MONTEREY PINE WOODLAND STANDS

Monterey cypress–Monterey pine woodland stands are characterized by a predominance of Monterey cypress (*Hesperocyparis macrocarpa*), Canary Island pine (*Pinus canariensis*), Aleppo pine (*Pinus halepensis*), Italian stone pine (*Pinus pinea*), and Monterey pine (*Pinus radiata*) in the tree canopy along with coast wattle (*Acacia cyclops*) and eucalyptus (*Eucalyptus* spp.) species. This vegetation community is naturalized on the coast and is often planted as trees, groves, and windbreaks.⁸¹ It occurs throughout the project site with dense cover occurring through the central and along the northern and eastern survey perimeters (Figure 3.3-1).

⁷⁹ SWCA Environmental Consultants (SWCA). 2023. *Biological Impact Report for the Cypress Point Affordable Housing Community Project, Moss Beach, San Mateo County, California*. Half Moon Bay, California: SWCA Environmental Consultants.

⁸⁰ HortScience | Bartlett Consulting. 2022. *Arborist Report, Cypress Point, Moss Beach, CA*. Half Moon Bay, California: HortScience | Bartlett Consulting.

⁸¹ Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation, Second Edition*. Sacramento, California: California Native Plant Society.

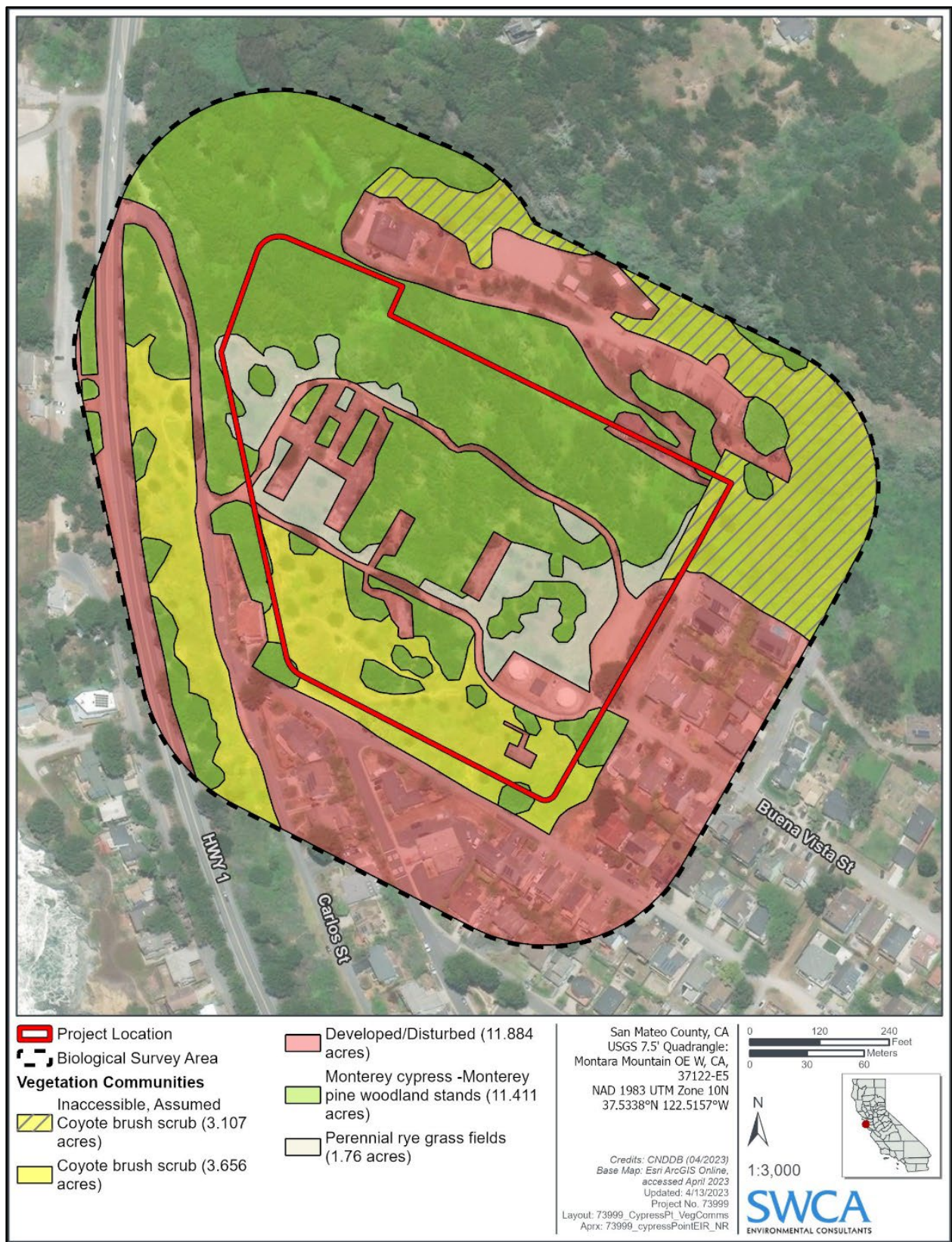


Figure 3.3-1. Vegetation communities.

3.3.1.1.2 COYOTE BRUSH SCRUB

The coyote brush scrub community occurs throughout the project site, primarily in the areas where there are gaps in the tree canopy. On the project site, coyote brush (*Baccharis pilularis*) is dominant with cotoneaster (*Cotoneaster coriaceus*), poison oak (*Toxicodendron diversilobum*), California blackberry (*Rubus ursinus*), ocean spray (*Holodiscus discolor*), red elderberry (*Sambucus racemosa*), and pampas grass (*Cortaderia selloana*) along the western extent of the project site and southwestern extent of the surrounding area (see Figure 3.3-1).

3.3.1.1.3 PERENNIAL RYE GRASS FIELDS

The perennial rye grass fields community occurs primarily along the northwest and southern perimeters of the project site and is dominated by perennial rye grass, wild oats (*Avena fatua*), ripgut brome (*Bromus diandrus*), four seeded vetch (*Vicia tetrasperma*), and soft chess (*Bromus hordeaceus*). Other species observed in this community include Bermuda buttercup (*Oxalis pes-caprae*), wild radish (*Raphanus sativus*), rattle snake grass (*Briza maxima*), limited cover of prairie June grass (*Koeleria macrantha*), and common dandelion (*Taraxacum californicum*). Along the southeastern extent of the project site, limited patches of spreading rush (*Juncus patens*), little-robin (*Geranium purpureum*), bird's foot trefoil (*Lotus corniculatus*), and common cat's ear (*Hypochaeris radicata*) are present (see Figure 3.3-1).

3.3.1.1.4 DEVELOPED/DISTURBED

Developed/disturbed areas within the project site include remnants of concrete structures from previous military uses distributed throughout the site. Two water towers and an associated maintenance hut occur in the southeastern portion of the project site. Unpaved, dirt maintenance roads traverse the perimeter of the project site. This habitat type also occurs on the eastern, southern, and western sides surrounding the project site and includes Lincoln, Buena Vista, and Carlos Streets. Disturbed areas throughout the project site are dominated by invasive plant species, including French broom (*Genista monspessulana*), cape ivy (*Delairea odorata*), pride of madeira (*Echium candicans*), borage (*Borago officinalis*), fairy stonecrop (*Crassula multicava*), longleaf wattle (*Acacia longifolia*), and periodic ice plant (*Carpobrotus edulis*) mats. Occasional native species occur within this community and include California bee plant (*Scrophularia californica*), California mugwort (*Artemisia douglasiana*), common yarrow (*Achillea millefolium*), and pacific sanicle (*Sanicula crassicaulis*).

The site has a variety of habitats that support wildlife species that live in grassland, urban, and forested environments. Several bat species are known to occur in the region. The forested portions of the site located near or in drainages like the Monterey cypress–Monterey pine woodland stand in the northern portion of the project site, provide habitat for a variety of wintering and migrating birds, and the forest overstory provides nesting habitat for raptors.

3.3.1.2 Special-Status Species

Based on the existing biological conditions in and adjacent to the project site, a review of relevant literature, the known occurrences of special-status species in the area, and SWCA biologists' local knowledge of the region, 10 special-status plant species and eight special-status animal species were identified as having potential to occur within the project site (see Appendix D).

Of the 10 special-status plant species considered for potential occurrence, the BSA has a moderate to high potential to support one special-status plant species—Choris's popcorn flower (*Plagiobothrys chorisianus* var. *chorisianus*). Of the remaining nine species, four species—coastal marsh milkvetch (*Astragalus pycnostachyus* var. *pycnostachyus*), Coast yellow leptosiphon (*Leptosiphon croceus*), San Francisco owl's-clover (*Triphysaria floribunda*), and Ornduff's meadowfoam (*Limnanthes douglasii* ssp.

ornduffii)—were determined to have no potential to occur due to lack of suitable habitat, soils, or elevation requirements. Five species—Blasdale’s bent grass (*Agrostis blasdalei*), Hickman’s cinquefoil (*Potentilla hickmanii*), Kellogg’s horkelia (*Horkelia cuneata* var. *sericea*), perennial goldfields (*Lasthenia californica* ssp. *macrantha*), and rose leptosiphon (*Leptosiphon rosaceus*)—have low potential to occur within the BSA due to a lack of high-quality suitable habitat and the absence of recent occurrences within the 2-mile records search (see Appendix D).

Of the eight special-status animal species identified, one—California red-legged frog (*Rana draytonii*)—was determined to have moderate potential to occur within the project site and BSA. Of the remaining seven species, the following four were determined to have low potential to occur: western bumblebee (*Bombus occidentalis*), monarch butterfly (*Danaus plexippus*), saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*), and San Francisco garter snake (*Thamnophis sirtalis tetrataenia*). Three species—San Bruno elfin butterfly (*Callophrys mossii bayensis*), foothill yellow-legged frog (*Rana boylei*), and American badger (*Taxidea taxus*)—were determined to be absent from the project site and BSA due to a lack of suitable foraging and/or breeding habitat, aestivating habitat, life history, and/or other biotic considerations (see Appendix D). The remaining species were determined to have either low potential or no potential to occur and are not further discussed in this section.

3.3.1.2.1 CHORIS’S POPCORN FLOWER

Choris’s popcorn flower (California Rare Plant Rank [CRPR] 1B.2) is a special-status plant species that was determined to have a moderate potential to occur on the project site due to suitable mesic coastal scrub habitat. Choris’s popcorn flower is an annual herb in the borage family (*Boraginaceae*) that blooms from March to June. It typically occurs in mesic areas in coastal prairie, chaparral, northern coastal scrub, and wetland riparian areas, at elevations ranging from 20 to 525 feet.^{82, 83, 84} Vegetation communities within the project site that could potentially support this species are limited to coyote brush scrub and perennial rye grass fields. Although the April 2023 field survey was conducted during the bloom window (March through June), no Choris’s popcorn flower was observed on the project site.

3.3.1.2.2 CALIFORNIA RED-LEGGED FROG

California red-legged frog, a federally threatened species and California Department of Fish and Wildlife (CDFW) Species of Special Concern (SSC), occurs in various different habitat types, depending on its life cycle stage. Breeding areas include aquatic habitats, such as lagoons, streams, and natural and humanmade ponds. The species prefers aquatic habitats with little or no flow, the presence of surface water to at least early June, surface water depths to approximately 2 feet, and the presence of emergent vegetation (e.g., cattails, bulrush). During periods of wet weather, some individuals may make overland dispersals through adjacent upland habitats of distances up to 1 mile.⁸⁵ Upland habitats, including small mammal burrows and woody debris, can also be used as refuge during the summer if water is scarce or unavailable.⁸⁶ California red-legged frogs typically travel between sites and are unaffected by topography

⁸² Baldwin, B., D. Goldman, D. Keil, R. Patterson, and T. Rosatti (editors). 2012. *The Jepson Manual: Vascular Plants of California*. 2nd ed. Berkeley, California: University of California Press.

⁸³ Calflora. 2023. Information on California plants for education, research and conservation (Calflora). Berkeley, California. Available at: <https://www.calflora.org/>. Accessed March 30, 2023.

⁸⁴ California Native Plant Society. 2023. *Manual of California Vegetation Online*. California Native Plant Society. Available at: <http://cnps.org/>. Accessed March 30, 2023.

⁸⁵ U.S. Fish and Wildlife Service. 2002. *Recovery Plan for the California Red-legged Frog* (*Rana aurora draytonii*). Portland, Oregon: U.S. Fish and Wildlife Service.

⁸⁶ Jennings, M.R., and M.P. Hayes. 1994. *Amphibian and Reptile Species of Concern in California*. Sacramento, California: California Department of Fish and Game.

and vegetation types during migration. Dispersal habitat makes it possible for California red-legged frog to locate to new breeding and non-breeding sites and is crucial for conservation of the species.

Seven California red-legged frog occurrences have been recorded within 2 miles of the project site between 2006 and 2019.⁸⁷ The closest California Natural Diversity Data Base (CNDDDB) occurrence (2012) was recorded approximately 0.7 mile north of the project site. While no suitable aquatic breeding habitat was observed on-site, potentially suitable upland dispersal habitat for this species is present within the project site. Additionally, Montara Creek, which is located approximately 250 feet north of the project site and immediately north of the project site, may provide marginally suitable aquatic dispersal habitat during wet season periods of inundation. Although there is potentially suitable upland dispersal habitat within the project site, this species is more likely to utilize higher-quality suitable aquatic and non-breeding habitat within and adjacent to Montara Creek where there is also more woody debris available for refugia. In addition, the project site does not provide a suitable overland route to other aquatic breeding sites and no small mammal burrows were observed within the project site. California red-legged frog was not observed in the project site during the April 2023 field survey.

3.3.1.3 Critical Habitat

There is no federally listed critical habitat on the project site or Biological Survey Area. However, there is U.S. Fish and Wildlife Service (USFWS) federally designated critical habitat for California red-legged frog (a federally threatened species and CDFW SSC) approximately 1.1 miles east of the project site in and surrounding San Vicente Creek, which flows south of the project site toward the Pacific Ocean (Figure 3.3-2).

3.3.1.4 Nesting Migratory Passerine Birds and Raptors

The BSA contains suitable nesting and foraging habitat for avian species protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFG) Sections 3503 and 3513 during the typical nesting season (February 15–September 15). Suitable nesting and foraging habitats would include the non-native grassland areas, shrubs, and trees within and adjacent to the project site. Nesting is unlikely outside of the typical nesting season, although some avian species may forage year-round near the site. No nesting birds were observed during the field survey, which occurred during the typical nesting season.

3.3.1.5 Wildlife Habitat and Movement Corridors

Suitable migration habitat for amphibians, reptiles, birds, and mammals are present along the Pacific Ocean coastline to the west of the BSA. In addition, migrating raptors are known to occur in the area adjacent to the project site, especially during the fall. However, there are no known migratory corridors that intersect the BSA. The project site is bordered by urban and residential development to the east and south and Highway 1 to the west. Riparian corridors adjacent to the BSA to the north and south are more likely to be used by wildlife traveling through the surrounding area.

⁸⁷ SWCA, 2023.

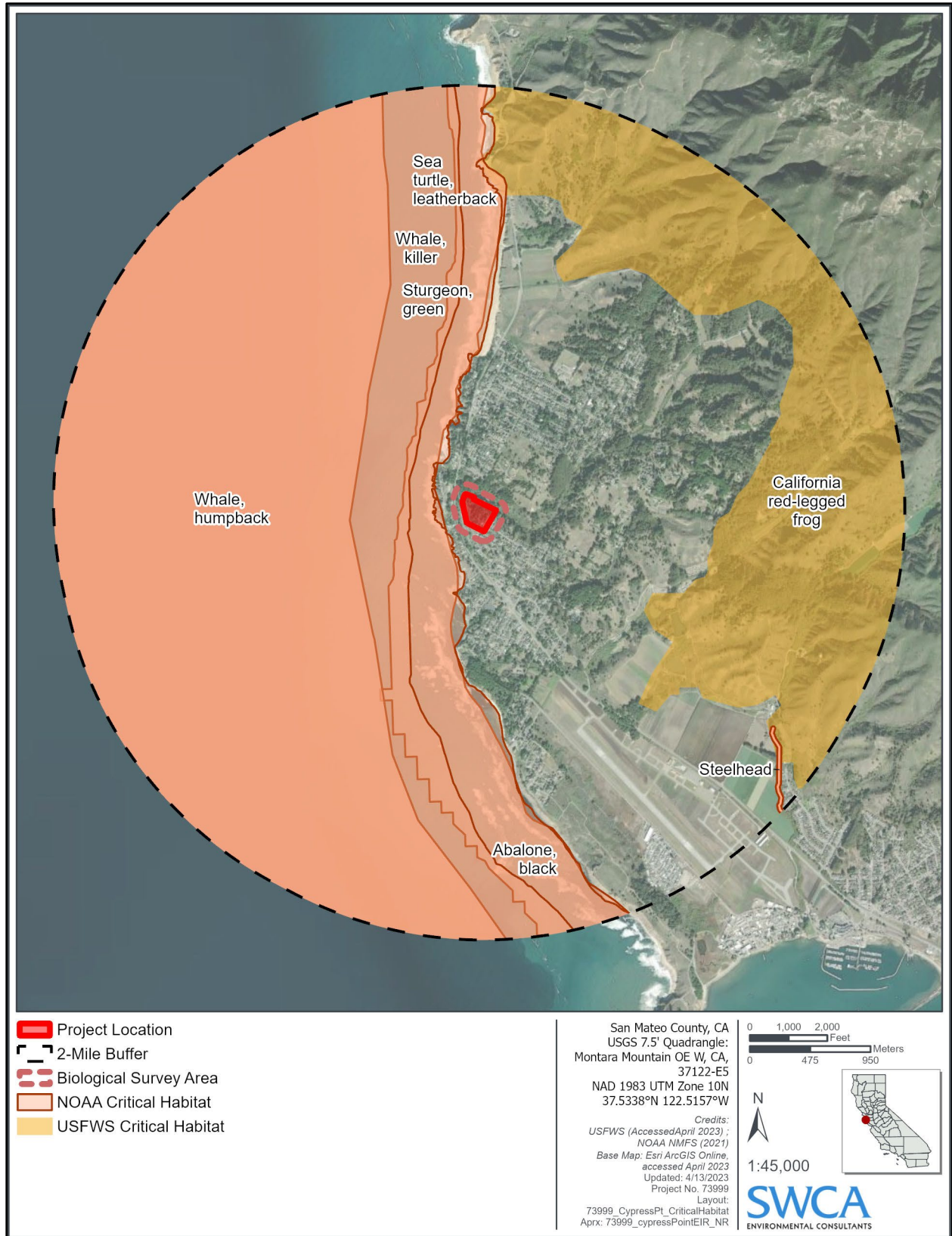


Figure 3.3-2. Critical habitat map.

3.3.1.6 Sensitive Habitat

As mentioned previously, coyote brush scrub and perennial rye grass field communities on the project site may provide moderately suitable upland dispersal habitat for California red-legged frog. However, these vegetation communities within the project site are unlikely to be considered a Sensitive Habitat by the County of San Mateo (County) given the surrounding development (i.e., fragmentation of habitat) that diminishes the dispersal habitat value.

Riparian habitat associated with Montara Creek exists north of the BSA; however, no riparian habitat is located within the BSA. No other Sensitive Habitats, as defined by the San Mateo County Local Coastal Program (LCP) Policies 7.1 through 7.14, were observed within the project site.⁸⁸

3.3.1.7 Heritage and Significant Trees

HortScience | Bartlett Consulting prepared an *Arborist Report* in July 2022 for the proposed project. The *Arborist Report* identified and assessed 488 trees with trunks greater than 6 inches in diameter on the project site. These included 303 Monterey pines, 181 Monterey cypress, three Italian stone pine, and one myoporum (*Myoporum laetum*). The report assessed all trees with a trunk diameter greater than 6 inches on-site and made recommendations for tree removal and maintenance.⁸⁹ Approximately half of the trees were in poor condition and 14% of the trees were in good condition. Trees were also rated for suitability for preservation based on health, structural integrity, age and longevity, and species response to construction impacts and change. This analysis showed that 26 trees had a high suitability, 107 trees had a moderate suitability, and 344 trees had a low suitability for preservation. Based on a review of the development plans and tree suitability for preservation, 295 trees were identified and recommended for removal and 193 trees were recommended for preservation.

3.3.1.8 Marine and Wildlife Reserves

The project site is not located within 200 feet of a marine or wildlife reserve. The closest marine or wildlife reserve to the project site is the Fitzgerald Marine Reserve, which is located approximately 0.63 mile south of the project site.

3.3.1.9 Wetlands and Waters

A formal wetland delineation was not conducted for the project. However, no potentially jurisdictional waters or wetlands were observed during the field investigation. Montara Creek is located approximately 250 feet north of the project site and immediately north of the BSA. In addition, Vicente Creek is located approximately 0.6 mile south of the project site.

3.3.2 Regulatory Setting

3.3.2.1 Federal Regulations and Guidelines

3.3.2.1.1 ENDANGERED SPECIES ACT

The federal Endangered Species Act (ESA) of 1973 (United States Code [U.S.C.] Title 16, Sections 1531–1544), as amended, protects plants, fish, and wildlife that are listed as endangered or threatened by

⁸⁸ County of San Mateo. 2013. *Local Coastal Program Policies*. Available at: <https://www.smcgov.org/planning/local-coastal-program>. Accessed March 30, 2023.

⁸⁹ HortScience | Bartlett Consulting, 2022.

the USFWS or the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NOAA Fisheries). Section 9 of the ESA prohibits the “take” of listed fish and wildlife, where “take” is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (Code of Federal Regulations [CFR] Title 50, Section 17.3). For plants, this statute prohibits removing, possessing, maliciously damaging, or destroying any listed plant under federal jurisdiction and removing, cutting, digging up, damaging, or destroying any listed plant in knowing violation of State law (16 U.S.C. 1538).

The ESA allows for issuance of incidental take permits to private parties either in conjunction with a habitat conservation plan (HCP) or as part of a Section 7 consultation (which is discussed in the following paragraph). Under Section 10 of the ESA, a private party may obtain incidental take coverage by preparing an HCP to cover target species within the project site, identifying impacts to the covered species, and presenting the measures that will be undertaken to avoid, minimize, and mitigate such impacts.

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

3.3.2.1.2 MIGRATORY BIRD TREATY ACT

The MBTA (16 U.S.C. Section 703, Supp. I, 1989) prohibits killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. The trustee agency that addresses issues related to the MBTA is USFWS. Migratory birds protected under this law include all native birds and certain game birds (e.g., turkeys and pheasants), though most non-native birds are excluded from MBTA protection.⁹⁰ This act encompasses whole birds, parts of birds, and bird nests and eggs. The MBTA protects active nests from destruction and all nests of species protected by the MBTA, whether active or not, cannot be possessed. An active nest under the MBTA, as described by the U.S. Department of the Interior in its April 16, 2003, Migratory Bird Permit Memorandum, is one having eggs or young. Nest starts, prior to egg laying, are not protected from destruction. All native bird species occurring in the program area are protected by the MBTA. Program activities will include measures to avoid take of birds protected by the MBTA.

3.3.2.1.3 CLEAN WATER ACT

Areas meeting the regulatory definition of “waters of the United States” (jurisdictional waters) are subject to the jurisdiction of U.S. Army Corps of Engineers (USACE) under provisions of Section 404 of the 1972 Clean Water Act (Federal Water Pollution Control Act) (CWA) and Section 10 of the 1899 Rivers and Harbors Act (described below). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, and

⁹⁰ USFWS. 2023. Migratory Bird Treaty Act of 1918. Available at: www.fws.gov/law/migratory-bird-treaty-act-1918. Accessed June 2023.

all other waters that are indistinguishably part of such bodies of water. Wetlands on non-agricultural lands are identified using the USACE *Wetlands Delineation Manual*.⁹¹

Construction activities within jurisdictional waters are regulated by USACE. The placement of fill into such waters must comply with permit requirements of USACE. No USACE permit would be effective in the absence of state water quality certification under CWA Section 401. The State Water Resources Control Board (SWRCB) is the state agency, together with the Regional Water Quality Control Boards (RWQCBs), charged with implementing water quality certification in California.

3.3.2.2 State Regulations and Guidelines

3.3.2.2.1 PORTER-COLOGNE WATER QUALITY CONTROL ACT

The California SWRCB works in coordination with the nine RWQCBs to preserve, protect, enhance, and restore water quality. Each RWQCB makes decisions related to water quality for its region, and may approve, with or without conditions, or deny projects that could affect waters of the state. Their authority comes from the CWA and the State's Porter-Cologne Water Quality Control Act (Porter-Cologne). Porter-Cologne broadly defines waters of the state as "any surface water or groundwater, including saline waters, within the boundaries of the state." Because Porter-Cologne applies to any water, whereas the CWA applies only to certain waters, California's jurisdictional reach overlaps and may exceed the boundaries of waters of the United States. For example, Water Quality Order No. 2004-0004-DWQ states that shallow waters of the state include headwaters, wetlands, and riparian areas. Where riparian habitat is not present, such as may be the case at headwaters, jurisdiction is taken to the top of bank.

On April 2, 2019, the SWRCB adopted the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures). In these new guidelines, riparian habitats are not specifically described as waters of the state but instead as important buffer habitats to streams that do conform to the State Wetland Definition. The Procedures describe riparian habitat buffers as important resources that may both be included in required mitigation packages for permits for impacts to waters of the state, as well as areas requiring permit authorization from the RWQCBs to impact.

Pursuant to the CWA, projects that are regulated by the USACE must also obtain a Section 401 Water Quality Certification permit from the RWQCB. This certification ensures that the proposed project will uphold state water quality standards. Because California's jurisdiction to regulate its water resources is much broader than that of the federal government, proposed impacts on waters of the state require Water Quality Certification even if the area occurs outside of USACE jurisdiction. Moreover, the RWQCB may impose mitigation requirements even if the USACE does not, for example for riparian habitats which are buffers to waters of the state. Under Porter-Cologne, the SWRCB and the nine regional boards also have the responsibility of granting CWA National Pollutant Discharge Elimination System (NPDES) permits and Waste Discharge Requirements for certain point-source and non-point discharges to waters. These regulations limit impacts on aquatic and riparian habitats from a variety of urban sources.

Any activities within the proposed program area that affect waters of the United States or waters of the state would require Section 401 Water Quality Certification and/or Waste Discharge Requirements from the RWQCB. Most wetland and open water features in the proposed program area are considered both waters of the United States and waters of the State. It is possible that some features, such as ditches, that are not considered waters of the United States may be subject to the jurisdiction of the San Francisco Bay RWQCB as waters of the state.

⁹¹ US Army Corps of Engineers. 1987. *Wetlands Delineation Manual*. Available at: www.lrh.usace.army.mil/Portals/38/docs/USACE%2087%20Wetland%20Delineation%20Manual.pdf. Accessed June 2023.

3.3.2.2 CALIFORNIA ENDANGERED SPECIES ACT

The California Endangered Species Act (CESA) (CFGF Chapter 1.5, Sections 2050-2116) prohibits the take of any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. In accordance with the CESA, CDFW has jurisdiction over state-listed species. CDFW regulates activities that may result in “take” of individuals listed under the Act (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 CFGF. CDFW has interpreted “take” to include the “killing of a member of a species which is the proximate result of habitat modification.” If program activities would result in take of a state-listed species, an incidental take permit would be required through Section 2081 consultation with CDFW.

SSC is a category conferred by the CDFW to fish and animal species that meet the state definition of threatened or endangered, but have not been formally listed (e.g., federally or state-listed species), or are considered at risk of qualifying for threatened or endangered status in the future based on known threats. SSC is an administrative classification only, but these species should be considered “special-status” for the purposes of the California Environmental Quality Act (CEQA) analysis (see Section 3.3.1.1, Special-Status Plant Species, and Section 3.3.1.2, Special-Status Animal Species).

3.3.2.3 CALIFORNIA FISH AND GAME CODE

The CFGF includes regulations governing the use of, or impacts on, many of the state’s fish, wildlife, and sensitive habitats.

CDFW exerts jurisdiction over the bed and banks of rivers, lakes, and streams according to provisions of Sections 1601–1603 of the CFGF. Section 1602 of the CFGF requires a Streambed Alteration Agreement for the fill or removal of material within the bed and banks of a watercourse or water body and for the removal of riparian vegetation.

Certain sections of the CFGF describe regulations pertaining to certain animal species. For example, CFGF Sections 3503, 3513, and 3800 (and other sections and subsections) protect native birds, including their nests and eggs, from all forms of take. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “take” by CDFW. Raptors (i.e., eagles, falcons, hawks, and owls) and their nests are specifically protected in California under CFGF Section 3503.5. Section 3503.5 states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” All native bird species that occur in the proposed program area are protected by the CFGF. Projects may be required to take measures to avoid impacts on nesting birds under CFGF Sections 3503, 3513, and 3800.

The Fully Protected Species Statute (CFGF Section 4700) provides that fully protected species may not be taken or possessed at any time. Furthermore, the CDFW may authorize take of fully protected species only in very limited circumstances, such as for necessary scientific research.

Nongame mammals are protected by CFGF Section 4150, and other sections of the code protect other taxa. Native mammals and other species in the program area are also protected by the code.

The Native Plant Protection Act (NPPA) of 1977 (CFGF Sections 1900–1913) includes provisions that prohibit the take of endangered or rare native plants. The CDFW administers the NPPA and generally regards as rare many plant species with a CRPR of 1A, 1B, 2A, and 2B in the California Native Plant

Society (CNPS) Rare Plant Inventory.⁹² In addition, sometimes CRPR 3 and 4 plants are considered if the population has local significance in the area and is impacted by the project. Section 191(b) of the CFGC includes a specific provision to allow for the incidental removal of endangered or rare plant species, if not otherwise salvaged by CDFW, within a right-of-way to allow a public utility to fulfill its obligation to provide service to the public.

3.3.2.3 Local Regulations and Guidelines

3.3.2.3.1 CALIFORNIA COASTAL ACT AND SAN MATEO COUNTY LOCAL COASTAL PROGRAM

The California Coastal Act (CCA) of 1976 governs the decisions made by the California Coastal Commission (CCC) regarding issues such as shoreline public access and recreation, terrestrial and marine habitat protection, water quality, commercial fisheries, and development within the California coastal zone. Development within the coastal zone requires either a Coastal Development Permit (CDP) or CDP Exemption from the CCC or from a local government with a CCC-certified LCP.

The project is located within the coastal zone in San Mateo County. The San Mateo County LCP was approved by the County Board of Supervisors and CCC in 1980.⁹³ In April 1981, the County assumed responsibility for implementing the CCA in the unincorporated areas of San Mateo County, including issuance of CDPs. For a permit to be issued, the development must comply with the policies of the LCP and those ordinances adopted to implement the LCP. Specific policies of the CCA that are relevant to protection of biological resources include the following:

Section 30231. Biological productivity; water quality. The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30233. Diking, filling or dredging; continued movement of sediment and nutrients.

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following: (1) new or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities; (2) maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launch ramps; (3) in open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structure pilings for public recreational piers that provide public access and recreational opportunities; (4) incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines; (5) mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas; (6) restoration purposes; (7) nature study, aquaculture, or similar resource dependent activities.

⁹² SWCA, 2023.

⁹³ County of San Mateo, 2013.

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable longshore current systems.

(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled “Acquisition Priorities for the Coastal Wetlands of California”, shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.

Section 30240. Environmentally sensitive habitat areas; adjacent developments.

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas and shall be compatible with the continuance of those habitat and recreation areas.

The County LCP provides the following definition for Sensitive Habitats (Policy 7.1):

... any area in which plant or animal life or their habitats are either rare or especially valuable and any area which meets one of the following criteria: (1) habitats containing or supporting “rare and endangered” species as defined by the State Fish and Game Commission, (2) all perennial and intermittent streams and their tributaries, (3) coastal tide lands and marshes, (4) coastal and offshore areas containing breeding or nesting sites and coastal areas used by migratory and resident water-associated birds for resting areas and feeding, (5) areas used for scientific study and research concerning fish and wildlife, (6) lakes and ponds and adjacent shore habitat, (7) existing game and wildlife refuges and reserves, and (8) sand dunes.

Sensitive habitat areas include, but are not limited to, riparian corridors, wetlands, marine habitats, sand dunes, sea cliffs, and habitats supporting rare, endangered, and unique species.

The County LCP provides the following protection for Sensitive Habitats (Policy 7.3):

a. Prohibit any land use or development which would have significant adverse impact on sensitive habitat areas.

b. Development in areas adjacent to sensitive habitats shall be sited and designed to prevent impacts that could significantly degrade the sensitive habitats. All uses shall be compatible with the maintenance of biologic productivity of the habitats.

The County LCP defines riparian buffer zones as follows (Policy 7.11):

On both sides of riparian corridors, from the “limit of riparian vegetation” extend buffer zones 50 feet outward for perennial streams and 30 feet outward for intermittent streams.

Policies of the San Mateo County LCP take precedence over San Mateo County General Plan policies for property located in the Coastal Zone. Actions taken by counties or municipalities within the coastal zone

may be appealed to the CCC only under defined circumstances (specified in PRC Section 30603). The CCC also retains permit authority in certain limited areas, such as tidelands and submerged lands (CCA Section 30519(b)). Development must also comply with other provisions of the County Code and Ordinances, such as zoning, building, and health regulations.

3.3.2.3.2 SAN MATEO COUNTY HERITAGE TREE ORDINANCE

Heritage Trees include two classes of trees. Class 1 includes any tree or grove of trees designated by a resolution of the County Board of Supervisors. Class 2 trees include the following species and sizes: bigleaf maple (*Acer macrophyllum*, 36 inches in diameter at breast height [dbh]), madrone (*Arbutus menziesii*, 48 inches dbh), golden chinquapin (*Chrysolepsis chrysophylla*, 20 inches dbh), Santa Cruz cypress (*Cupressus abramsiana*, all trees), Oregon ash (*Fraxinus latifolia*, 12 inches dbh), tan oak (*Lithocarpus densiflorus*, 48 inches dbh), Douglas fir (*Pseudotsuga menziesii*, 60 inches dbh), coast live oak (*Quercus agrifolia*, 48 inches dbh), canyon live oak (*Quercus chrysolepsis*, 40 inches dbh), Oregon white oak (*Quercus garryana*, all trees), black oak (*Quercus kelloggii*, 32 inches dbh), interior live oak (*Quercus wislizenii*, 40 inches dbh), valley oak (*Quercus lobata*, 48 inches dbh), blue oak (*Quercus douglasii*, 30 inches dbh), California bay or laurel (*Umbellularia californica*, 48 inches dbh), California nutmeg (*Torreya californica*, 30 inches dbh), and redwood (*Sequoia sempervirens*, 84 inches dbh).

The 2016 Heritage Trees Ordinance requires submittal of an existing tree plan, including (1) an arborist's report of all significant or heritage trees to be removed, and (2) a Tree Protection Plan for all trees to be preserved.⁹⁴ Permits must be acquired for all regulated trees to be removed. The Planning Commission will act upon any tree removal in a scenic corridor. Significant trees to be removed must be replaced with 3 or more trees, as determined by the Community Development Director.

3.3.2.3.3 SAN MATEO COUNTY SIGNIFICANT TREE ORDINANCE

The 2016 Significant Tree Ordinance governs the cutting of significant trees and tree communities and requires the replacement of significant tree communities on public and private property within the unincorporated area of the county.⁹⁵ Cutting or removal of a significant tree requires a permit from the County. The County defines significant trees as “any live woody plant rising above the ground with a single stem or trunk of a circumference of thirty-eight inches (38”) or more measured at four and one half feet (4 ½’) vertically above the ground or immediately below the lowest branch, whichever is lower, and having the inherent capacity of naturally producing one main axis continuing to grow more vigorously than the later axes.”⁹⁶

The Significant Tree Ordinance governs the cutting of significant trees and tree communities and requires the replacement of significant trees communities on public and private property within the unincorporated area of the County.⁹⁷ Section 12024 of the County Municipal Code requires the replacement of significant indigenous and exotic trees at a 3:1 ratio.⁹⁸

⁹⁴ County of San Mateo. 2016a. *Regulation of Removal and Trimming of Heritage Trees on Public and Private Property*. Available at: <https://www.smcgov.org/planning/tree-regulations>. Accessed May 5, 2023

⁹⁵ County of San Mateo. 2016b. *Significant Tree Ordinance of San Mateo County*. Available at: <https://www.smcgov.org/planning/tree-regulations>. Accessed May 5, 2023

⁹⁶ County of San Mateo. 1986. Part Three of Division VIII of the San Mateo County Ordinance Code. Available at: <https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Significant%20Tree%20Ordinance.pdf>.

⁹⁷ County of San Mateo, 2016b.

⁹⁸ County of San Mateo, 2016b.

Under Section 12,020.1, permits are not required for tree cutting which has been authorized by the Planning Commission, Design Review Committee, or Community Development Director as part of a permit approval process in which the provisions of this ordinance have been applied and considered.

Under Section 12,020.4, applicants seeking planning or building permits (including grading or demolition permits) must submit an Existing Tree Plan consistent with the required site plan to assess impacts to existing trees that may occur from the proposed development, and to establish tree protection measures for activity occurring within the dripline of a significant or heritage tree. The Existing Tree Plan must include the following:

- Property lines and easements;
- The locations of existing trees or groups of trees, including driplines with each tree numbered, and identified by trunk diameter at breast height (DBH), with an “X” through each tree proposed for removal, including on-site trees and trees adjacent to the project site, with driplines overhanging the project site;
- A table listing each tree by number, DBH, genus, species, and common name;
- For Demolition permits, show the building footprint for the structure to be removed;
- The footprint of any existing or new structures, including additions;
- The location of existing and proposed site utilities, including water, sewer, drainage, gas, underground electrical, voice/data, septic field, well head, or other;
- An Arborist's report is required for significant or heritage trees proposed for removal on the basis of poor health, potential hazard, or when a significant or heritage tree(s) is proposed to remain, but new development would encroach within the dripline of the tree(s);
- The Arborist's report shall assess the tree condition for all significant or heritage trees, and any measures necessary to protect trees on-site during demolition or construction. Tree protection measures shall comply with San Mateo County's tree protection requirements;
- For development within a tree dripline, the report shall assess potential tree survival and longevity, and special measures needed to protect any such trees during construction.

Existing Tree Plans shall NOT include:

- Proposed Landscaping
- Topographic Lines
- Finished Floor Elevations

Under Section 12,024(a), for projects not in the Residential Hillside/Design Review (RH/DR) District, replacement of trees removed shall be in a manner and quantity prescribed by the Community Development Director.

3.3.3 Thresholds of Significance

The determinations of significance of project impacts are based on applicable policies, regulations, goals, and guidelines defined by CEQA Guidelines Appendix G, as modified by the County of San Mateo.

Specifically, the project would be considered to have a significant effect on biological resources if the effects exceed the significance criteria described below:

1. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
2. Would the project 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 CDFW or USFWS.
3. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
4. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.
5. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (including the County Heritage and Significant Tree Ordinances).
6. Would the project conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP?
7. Would the project be located inside or within 200 feet of a marine or wildlife reserve?
8. Would the project result in loss of oak woodlands or other non-timber woodlands?

Each of these thresholds is discussed under Section 3.3.5, Impacts and Mitigation Measures.

3.3.4 Impact Assessment and Methodology

The impact assessment for this project is based on the BIR prepared by SWCA (see Appendix D). The BIR included a desktop review, literature search, and field survey of the project site, including areas within a 200-foot buffer of the project site, as well as a review of applicable federal, state, and local regulations governing biological resources. Project effects related to biological resources were compared against LCP policies and County ordinances for consistency.

3.3.5 Impacts and Mitigation Measures

Impact BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? (Less than Significant with Mitigation)

The project has potential to impact one special-status plant species and one special-status wildlife species.

Choris's Popcorn Flower

Potential project impacts to special-status plants include direct removal during construction activities or incidental impacts through project activities such as vehicle impacts. The project site has suitable mesic coastal scrub habitat to support Choris's popcorn flower. No Choris's popcorn flower was observed at the time of the April 2023 field survey, which was conducted during the blooming period for this species.

Vegetation communities within the BSA that could potentially support this species are limited to coyote brush scrub and perennial rye grass fields. Portions of the project work area are anticipated to occur in coyote brush scrub and perennial rye grass field vegetation communities that may support Choris's popcorn flower.

Therefore, a preconstruction survey for this species, during the appropriate bloom period of March to June, is recommended. With implementation of avoidance and minimization measures, including preconstruction survey and special-status plant avoidance, provided in **Mitigation Measure MM-BIO-1g**, no Project impacts to Choris's popcorn flower are anticipated. Therefore, the implementation of **MM-BIO-1g** would reduce a potentially significant impact to this special-status species to a less-than-significant level.

California Red-legged Frog

Potential impacts to special-status wildlife from project activities include direct impact to individuals from construction activities (i.e., direct mortality from vehicle interactions); direct impacts to special-status species habitat such as required cover or nesting areas via vegetation removal; direct mortality from chemical spills; or indirect impacts to wildlife via noise disturbance.

California red-legged frog occurs in various different habitat types, depending on its life cycle stage. There is moderate potential for dispersing California red-legged frog to occur in the project site and surrounding area during the wet season (October 15–May 31), and low potential for the species to occur in the project site during the dry season (June 1–October 15).

The project includes daily preconstruction surveys initially, initial presence of a biological monitor, and installation of wildlife fencing. In addition, project mitigations include environmental awareness training, Standard biological mitigation measures **MM-BIO-1b through MM-BIO-1f** would prohibit touching wildlife, require proper trash disposal, require inspection of construction materials for wildlife, and minimize access routes and vegetation removal. In addition, **MM-BIO-1h and MM-BIO-1i**, include preconstruction surveys for California red-legged frog, the presence of a biological monitor during initial ground-disturbing activities, and installation of wildlife exclusion fencing. Therefore, the implementation of **MM-BIO-1a through MM-BIO-1f, MM-BIO-1h, and MM-BIO-1i** would reduce a potentially significant impact to this special-status species to a less-than-significant level.

The project shall comply with all of the following relevant measures. These measures have been developed based on measures identified in the BIR:

MM-BIO-1 The following general measures shall be implemented during the project:

- a) Prior to the start of the project, all construction crew members, including the project stormwater inspector, will attend an environmental awareness training presented by a qualified biologist. A training brochure describing special-status species, project avoidance and minimization measures, key contacts, and potential consequences of impacts to special-status species and potentially jurisdictional features will be distributed to the crew members during the training. During the training the qualified biologist will review with the project stormwater inspector the requirement of weekly inspection of wildlife exclusion fencing as described in MM-BIO-1m. Trainees will sign an environmental training attendance sheet.
- b) If any animals are encountered during project activities, said animals shall be allowed to leave the work area unharmed. Animals shall not be picked up or moved in any way.
- c) During project activities, all trash that may attract predators shall be properly contained, removed, and disposed of regularly. Following construction, trash/construction debris shall be removed from work areas.

- d) Construction materials, including, but not limited to, wooden pallets, best management practices (BMPs), equipment, or other materials, that are left on the ground for more than 24 hours shall be inspected before and during moving of the materials to prevent potential impacts to animals that may have utilized the materials as a temporary refuge. Plastic pipes, if used, shall be covered with material to prevent animals from entering the pipes.
- e) The number of access routes, number and size of staging areas, and total area of the activity shall be limited to the minimum necessary to complete the project, and their boundaries shall be clearly demarcated.
- f) Disturbance to vegetation shall be kept to the minimum necessary to complete the project activities. To minimize impacts to vegetation, a qualified biologist shall work with the contractor to designate the work area and any staging areas and clearly delineate areas that shall be avoided with exclusion fencing (e.g., high-visibility orange construction fencing, silt fence, ERTEC fencing, or other similar material).

The following measure shall be implemented to minimize impacts to special-status plant species:

- a) Prior to the start of construction, a preconstruction survey for Choris's popcorn flower shall be conducted during the appropriate blooming period. Choris's popcorn flower occurrences within 50 feet of the project work areas shall be flagged for avoidance by the Project. If the Project cannot avoid impacts to this species, the Project Proponent shall consult with the CDFW on appropriate measures and/or actions to protect or salvage the plant(s) prior to beginning construction.

The following measures shall be implemented to minimize impacts to special-status amphibians and reptiles:

- a) A qualified biological monitor shall be present during all initial ground-disturbing activities, including grubbing and/or vegetation removal and installation of the wildlife exclusion fence.
- b) A preconstruction survey for California red-legged frog shall be conducted within the project site immediately prior to ground disturbance. If no individuals are detected, then construction-related activities may proceed provided project avoidance and minimization measures in this document are adhered to. If adults are present in the construction area, work shall be stopped until individuals are allowed to disperse on their own volition, or the species is relocated by a qualified biologist with permission to handle California red-legged frog.
- c) Disturbance to vegetation shall be kept to the minimum necessary to complete the project activities. To minimize impacts to vegetation, a qualified biologist shall work with the contractor to designate the work area and any staging areas and clearly delineate areas that shall be avoided with exclusion fencing (e.g., high-visibility orange construction fencing, silt fence, ERTEC fencing, or other similar material).
- d) Ground-disturbing construction activities (e.g., grubbing or grading) should occur during the dry season (June 1–October 15) to facilitate avoidance of California red-legged frog. Regardless of the season, no ground-disturbing activities shall occur within 24 hours following a significant rain event (greater than ¼ inch in a 24-hour period). Following a significant rain event and the 24-hour drying-out period, a qualified biologist would conduct a preconstruction survey for California red-legged frog prior to the restart of any project ground-disturbing activities.
- e) To avoid impacts to California red-legged frog and other sensitive wildlife species, a wildlife exclusion fence (e.g., silt fence, ERTEC fencing, or other similar material) shall be installed around the perimeter of the Project, at the discretion of the qualified biologist.

- f) The wildlife exclusion fence shall be inspected by a qualified biologist or project stormwater inspector, who has received environmental awareness training from a qualified biologist, on a weekly basis to ensure that the fence is functioning as intended throughout the duration of construction activities that may impact California red-legged frog (e.g., ground disturbance, materials staging/parking required on the north side of the project site). Removal of the wildlife exclusion fence may be conducted at the discretion of a qualified biologist if ground disturbance activities have been completed and remaining Project activities would not impact California red-legged frog (i.e., only interior site build out activities remain).

Therefore, implementation of **MM-BIO-1a through MM-BIO-1m** would reduce potential impacts to sensitive or special-status species to less-than-significant levels.

Impact BIO-2: *Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? (No Impact)*

Riparian woodland habitat is found 250 feet north of the project site along Montara Creek. Montara Creek is located approximately 250 feet north of the project site and immediately north of the BSA. However, no riparian habitat or other Sensitive Habitats, as defined by the San Mateo County LCP Policies 7.1 through 7.14, were observed within the BSA or the project site. Monterey cypress–Monterey pine woodland stands, perennial rye grass fields, coyote brush scrub, and urban/developed habitats located on the project site are not categorized as Sensitive Habitats.

The LCP identifies a buffer area for riparian corridors of 50 feet outward from the limit of riparian vegetation for perennial streams. The biological survey extended 250 feet out from the project site and did not identify any riparian vegetation within that 250-foot radius. No project activities would take place in the buffer area north of the project site. Therefore, project activities would not take place within the 50-foot riparian buffer zone for perennial streams established in the LCP, and the project would not directly impact riparian vegetation. Therefore, there is no impact to riparian habitat or other sensitive natural communities, and no mitigation is necessary.

Impact BIO-3: *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? (Less Than Significant with Mitigation)*

No potentially jurisdictional waters or wetlands were observed during the field investigation. Montara Creek is a perennial stream located approximately 250 feet north of the project site and immediately north of the BSA. As discussed under Impact BIO-2, above, project activities would not take place within the 50-foot riparian buffer zone for perennial streams established in the LCP.

Impacts to Montara Creek could include damage to water quality if runoff contaminated with sediment or chemicals were allowed to enter Montara Creek.

Project construction would be under the jurisdiction of the San Francisco Bay Regional Municipal Regional Permit.⁹⁹ The project would implement construction BMPs as required by the Municipal Regional Permit, to prevent contaminated runoff from leaving the site or entering Montara Creek. Project

⁹⁹ San Francisco Bay Regional Water Quality Control Board. 2022. *Municipal Regional Stormwater NPDES Permit. Order No. R2-2022-0018. NPDES Permit No. CAS612008*. Available at: https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2022/R2-2022-0018.pdf. Accessed May 15, 2023.

operation includes a new stormwater system connecting to the County stormwater infrastructure. Stormwater runoff on the project would be collected by overland flow to three stormwater bioretention basins designed to comply with the development's dual requirements of stormwater treatment and hydromodification management (HM) requirements. The bioretention areas would be sufficient to contain peak flows from a 2-hour, 10-year storm event, as required by the municipal regional permit and HM. Therefore, stormwater during operation would not enter Montara Creek and no impact would occur.

Stormwater runoff from excavation, grading, and construction activities could impact water quality in Montara Creek. Standard conditions of approval for all CDPs in the County include all stormwater quality BMPs required by the SMCWPPP (see EIR Section 3.7, Hydrology and Water Quality). All construction activities would be required to implement BMPs to comply with the SMCWPPP and project SWPPP, which would prevent sediment-laden runoff and/or pollutants from entering the riparian area or Montara Creek. In addition, **MM-BIO-3a through MM-BIO-3e**, which would require management of exposed soils and vehicle fueling and maintenance, would further reduce these less-than-significant impacts.

MM-BIO-3 Implement the following BMPs to prevent erosion and sedimentation to Montara Creek:

- a) **Adhere to BMPs.** Regardless of the season, construction shall adhere to SWRCB BMPs, and no ground-disturbing activities shall occur within 24 hours following a significant rain event (defined as greater than ¼ inch in a 24-hour period).
- b) **Permanently Protect Exposed Surfaces.** Before completion of the project, all exposed or disturbed surfaces shall be permanently protected from erosion with reseeded and landscaping.
- c) **Cover and Secure Spoils.** All spoils, such as dirt, excavated material, debris, and construction-related materials, generated during project activities shall be placed within the limits of the designated construction area. Spoils shall be covered or secured to prevent sediment from escaping. Once the spoil pile is no longer active, it shall be removed from the work area and disposed of lawfully at an appropriate facility.
- d) **Stabilize Soils and Use BMPs.** All exposed soils in the work area resulting from project activities shall be stabilized immediately following the completion of work to prevent erosion. Erosion and sediment control BMPs, such as silt fences, straw hay bales, gravel or rock-lined drainages, water check bars, and broadcast straw, can be used. BMPs shall be made of certified weed-free materials. Straw wattles, if used, shall be made of biodegradable fabric (e.g., burlap) and free of monofilament netting. At no time shall silt-laden runoff be allowed to enter any drainages or other sensitive areas.
- e) **Do Not Fuel Near Drainages.** All fueling and maintenance of vehicles and other equipment and staging areas shall occur at least 100 feet from any drainages and other water features. Crew members shall ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, the construction contractor shall prepare a plan to be approved by the County before construction begins to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and the appropriate measures to take should a spill occur.

Impact BIO-4: *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites? (Less than Significant with Mitigation)*

The project has the potential to impact nesting birds, including their eggs or young, covered under the MBTA and CFGC. Suitable nesting and foraging habitats include the non-native grassland areas, shrubs,

and trees within and adjacent to the project site. Nesting is unlikely outside of the typical nesting season, although some avian species may forage year-round near the site.

Impacts to nesting birds could include disruption or failure of active nests from nearby construction activity, removal of active nests during construction, or direct mortality of eggs or nestlings. The project would remove approximately 295 trees from the project site and would trim other trees. Removal of trees during the nesting season could remove or damage migratory bird or raptor nests, which would be a potentially significant impact. Under **MM-BIO-4**, the project would conduct nesting bird surveys for any tree removal or trimming during the nesting season, and the project would be modified as necessary to avoid impacting nesting birds. With implementation of **MM-BIO-4**, this impact would be reduced to a less-than-significant level with mitigation incorporated.

Suitable migration habitat for amphibians, reptiles, birds, and mammals are present along the Pacific Ocean coastline to the west of the BSA. In addition, migrating raptors are known to occur in the area adjacent to the project site, especially during the fall. However, there are no known migratory corridors that intersect the BSA. The BSA is bordered by urban and residential development to the east and south and Highway 1 to the west. Riparian corridors adjacent to the BSA to the north and south are more likely to be utilized by wildlife traveling through the surrounding area. The BSA contains moderately suitable upland dispersal habitat for California red-legged frog and is likely utilized by common wildlife species. However, because the BSA is contained within residential and urban development, the project is not expected to interfere substantially with the movement of any native resident or migratory animals or impede the use of native wildlife nursery sites.

MM-BIO-4 Conduct Nesting Bird Surveys. If project activities, including grass mowing and tree trimming/removal, are conducted during nesting bird season (February 15–September 15), preconstruction nest surveys shall be conducted in and near the project site (within 250 feet for large raptors and 100 feet for all other birds) by a qualified biologist within 7 days of the start of construction. If nesting birds are identified during the preconstruction survey, then the project shall be modified (i.e., a no-work exclusion buffer of appropriate size [to be determined by the qualified project biologist] shall be erected around active nests) and/or delayed as necessary to avoid impacts to the identified nests, eggs, and/or young.

Impact BIO-5: *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (including the County Heritage and Significant Tree Ordinances)? (Less than Significant with Mitigation)*

The County has both a Heritage Tree Ordinance and a Significant Tree Ordinance. Impacts to heritage or significant trees could occur if heritage or significant trees were to be removed without the appropriate permits, or if heritage or significant trees removed were not replaced as agreed upon with the Community Development Director. The Significant Tree Ordinance (2016) governs the cutting of significant trees and tree communities and requires the replacement of significant tree communities on public and private property within the unincorporated area of the County. Section 12 of Part Three of Division VII of the San Mateo County Ordinance Code defines *significant trees* as having a trunk circumference of 38 inches or greater (12-inch diameter). Significant trees cannot be removed except with a permit or, if the tree removal is part of a grading or building permit, with authorization from the Planning Commission, Design Review Committee, or Community Development Director.¹⁰⁰

¹⁰⁰ HortScience | Bartlett Consulting. 2022. *Arborist Report, Cypress Point, Moss Beach, CA*, July 1, 2022.

Significant impacts could include:¹⁰¹

1. Unauthorized removal of significant or heritage trees;
2. Damage to significant or heritage trees identified to remain;
3. Replacement or replanting in a manner not approved by the County; and
4. Failure of replacement trees through inadequate maintenance.

The project would remove 295 trees out of the total 488 on the project site. All trees within the grading area will be removed. In addition, 40 of the 61 trees within 30 feet of the planned grading area will be removed, either because grading will impact the trees' roots or because the trees are in poor condition. The remaining 21 trees would be likely to have some impact to their root systems but are considered to be far enough away and healthy enough to survive some root damage. Most of the 193 trees to be preserved on the site are more than 30 feet from the planned grading area.

Based on the County definition of significant trees, 348 trees were identified by the *Arborist Report* as significant. As noted in Section 3.3.1.7, the *Arborist Report* concluded that only 14% of the trees surveyed were in good condition.¹⁰² No heritage or public trees were identified during the course of the arborist's evaluation. Of the 295 trees proposed to be removed, approximately 190 are considered significant trees.¹⁰³

The project would comply with all measures required by the Significant Tree Ordinance, including but not limited to, the following.

- The project arborist shall attend a preconstruction meeting with the general contractor and grading contractor and discuss tree protection requirements.
- Significant trees to be removed and retained would be clearly marked by the contractor and project arborist and protected during construction.
- The proposed project would establish tree protection zones as required by the ordinance, which would be isolated with protective fencing and signage approved by the project arborist.
- Prior to construction, the preconstruction site inspection would be conducted by the County Planning and Building Department to ensure tree protection measures are in place.
- All construction activities would be excluded from tree protection zones and no materials, tools, debris, excess soil, chemicals, or waste products would be stored or disposed of within these zones.
- All trenching near existing trees would hand dug, and if any roots larger than 2 inches in diameter need to be cut, any root cutting would be undertaken by an arborist and documented.
- Any pruning would be done under the direction of the project arborist and unauthorized pruning would not be allowed. Temporary irrigation will be provided to trees in the fenced-off area.

With the measures discussed above, project construction would not conflict with the Significant Tree Ordinance and this impact would be less than significant.

¹⁰¹ San Mateo County. 2016. *Significant Tree Ordinance of San Mateo County*. Available at: <https://www.smcgov.org/planning/tree-regulations>. Accessed May 5, 2023.

¹⁰² HortScience | Bartlett Consulting, 2022.

¹⁰³ HortScience | Bartlett Consulting, 2022.

The Significant Tree Ordinance requires replanting for significant trees removed during construction. For the proposed project, replacement of trees removed shall be in a manner and quantity prescribed by the Community Development Director. The project would plant approximately 195 replacement trees throughout the project site. The applicant would work with the Community Development Director to develop a tree replacement plan that includes approval of the quantity and location of proposed tree replacements and a maintenance plan for replacement trees. Tree replacement is consistent with Community Development Director's expectation and site conditions. As required by the Significant Tree Ordinance, the maintenance plan would be required for between 2 and 5 years, as determined by the Community Development Director. With the implementation of replanting and maintenance for removed significant trees, operation of the project would not conflict with the Significant Tree Ordinance and this impact would be less than significant.

In addition, under MM-BIO-5 implementation of the following measures recommended by the *Arborist Report* would further reduce this to a less-than-significant impact.

MM-BIO-5: Tree Replacement and Maintenance Plan

- a) Plans affecting the trees should be reviewed by the consulting arborist with regard to tree impacts. These include, but are not limited to, site plans, improvement plans, utility and drainage plans, grading plans, landscape and irrigation plans, and demolition plans.
- b) Route underground services including utilities, sub-drains, water, or sewer around the Tree Protection Zone. For design purposes, the Tree Protection Zone trees shall be defined as the tree dripline.
- c) Any herbicides placed under paving materials must be safe for use around trees and labeled for that use.
- d) Do not lime the subsoil within 50 feet of any tree. Lime is toxic to tree roots.
- e) As trees withdraw water from the soil, expansive soils may shrink within the root area. Therefore, foundations, footings, and pavements on expansive soils near trees should be designed to withstand differential displacement.
- f) Fences are to remain until all grading and construction is completed. Where demolition must occur close to trees, such as removing curb and pavement, install trunk protection devices such as winding silt sock wattling around trunks or stacking hay bales around tree trunks.
- g) Trees to be removed shall be felled so as to fall away from Tree Protection Zone and avoid pulling and breaking of roots of trees to remain. If roots are entwined, the Consulting Arborist may require first severing the major woody root mass before extracting the trees, or grinding the stump below ground.
- h) All contractors shall conduct operations in a manner that will prevent damage to trees to be preserved.
- i) Any brush clearing required within the Tree Protection Zone shall be accomplished with hand-operated equipment.
- j) All grading within the dripline of trees shall be done using the smallest equipment possible. The equipment shall operate perpendicular to the tree and operate from outside the Tree Protection Zone. Any modifications must be approved and monitored by the consulting arborist.
- k) If injury should occur to any tree during construction, it should be evaluated as soon as possible by the consulting arborist so that appropriate treatments can be applied.

Maintenance of Impacted Trees:

- a) Preserved trees will experience a physical environment different from that pre-development. As a result, tree health and structural stability should be monitored. Occasional pruning, fertilization, mulch, pest management, replanting and irrigation may be required.
- b) Provisions for monitoring both tree health and structural stability following construction must be made a priority. Inspect trees annually and following major storms to identify conditions requiring treatment to manage risk associated with tree failure.

Impact BIO-6: *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? (No Impact)*

There are no HCPs, Natural Community Conservation Plans, or other approved local, regional, or state HCPs that govern the project site. Therefore, the project would not conflict with any conservation plan and no impact would occur.

Impact BIO-7: *Would the project be located inside or within 200 feet of a marine or wildlife reserve? (No Impact)*

The nearest marine or wildlife reserve is Fitzgerald Marine Reserve, located approximately 0.6 mile southwest of the project site. Therefore, the project would not be located within 200 feet of a marine or wildlife reserve and no impact would occur.

Impact BIO-8: *Would the project result in loss of oak woodlands or other non-timber woodlands? (Less than Significant)*

The project site is zoned PUD-140/CD and surrounded by roadways, residential land uses, and open space. It is not located on forest land, timberland, timberland zoned, or timberland production as noted in **Initial Study Section 2.2, Agriculture and Forestry Resources** (see Appendix B). Although there are trees on-site, the groves are interspersed by previous development including concrete foundations. The project would require removal of approximately 295 Monterey cypress and Monterey pine trees and planting of 195 trees at the approval of the Community Development Director, per the San Mateo County Significant Tree Ordinance. Of the 193 significant trees to be removed, the *Arborist Report* rated 99 of them in poor health (1 or 2 on the health scale), 70 were rated in moderate health (3 on the health scale), 20 were rated in good health (4 on the health scale), and 1 was rated in very good health (5 on the health scale).¹⁰⁴ In addition to tree replacement, the project would retain the largest grove of the trees located along the northern perimeter of the site. Therefore, the impact related to the loss of non-timber woodlands would be less than significant.

3.3.6 Cumulative Impacts

Impact C-BIO-1: *Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to biological resources? (Less than Significant)*

The analysis of cumulative impacts on biological resources uses the projection method by incorporating the growth forecasts and cumulative impact conclusions of the program environmental impact report (EIR) for the Plan Bay Area 2040. The Plan Bay Area 2040 EIR evaluated the potential effects of

¹⁰⁴ HortScience | Bartlett Consulting, 2022.

implementing urban development and transportation projects identified by the Plan for the nine-county San Francisco Bay Area, including San Mateo County.¹⁰⁵ As identified in the EIR, although relatively little development was forecast for the San Mateo coast through 2040, projected development within the Bay Area, including San Mateo County, would result in adverse cumulative effects to the following biological resources:

- Plant and animal species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW, the USFWS, or the NOAA Fisheries;
- Designated critical habitat for federally listed plant and wildlife species;
- Riparian habitat, federally protected wetlands as defined by Section 404 of the CWA (including marsh, vernal pool, coastal), or other sensitive natural communities identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Reductions in the habitat of a fish or wildlife species; a drop in fish or wildlife populations below self-sustaining levels; elimination of a plant or animal community; or a reduction in the number or restriction in the range of an endangered, rare, or threatened species.

Within the Midcoast area, the EIR identified the following sensitive biological resources: California red-legged frog; Steelhead – Central Coast Evolutionarily Significant Unit, Contra Costa Goldfields; and the Sugarloaf Mountain – Montara Mountain Essential Connectivity Area.

As discussed above, the proposed project would not have a significant impact on any biological resources. Potential impacts for two special-status species that may occur on the project site would be mitigated to less than significant, as would potential off-site impacts to Montara Creek. The site does not contain any environmentally sensitive habitat areas or migration corridors. The habitat that does exist on the site is of low quality. Further, measures have been identified to mitigate for any potential impacts to significant trees, and nesting raptor or migratory bird species, should any be identified during preconstruction surveys.

Therefore, the proposed project would not make a cumulatively considerable contribution to any identified cumulative impact on biological resources because the impacts of the proposed project on biological resources are minor, the project would not affect any of the sensitive resources identified for the Midcoast area, and project specific effects would be further reduced by the implementation of identified mitigation measures. The proposed project would not make a cumulatively considerable contribution to the significant cumulative impacts to the biological resources cited above, and no additional mitigation would be required.

¹⁰⁵ Metropolitan Transportation Commission and Association of Bay Area Governments. 2017. *Plan Bay Area 2040. Final. Adopted July 26, 2017.* Available at: http://2040.planbayarea.org/files/2020-02/Final_Plan_Bay_Area_2040.pdf. Accessed June 2023.

3.4 GEOLOGY AND SOILS

This section describes the potential impacts to the geology and soils of the project site with development of the proposed project. Potential effects are evaluated relative to important geologic features (e.g., coastal bluffs, paleontological resources) and the existing geology of the landscape. Impacts on the geology and soils of a site are usually addressed through an evaluation of the project-related subsurface changes to the existing environment, and the modifications that would alter the stability of the geologic or soil conditions. This section includes information from the following sources:

- *Geotechnical Investigation Cypress Point Family Community 16th and Carlos Streets Moss Beach, California* report completed by Rockridge Geotechnical on June 28, 2022.¹⁰⁶ (Appendix F)
- *Cultural Resource Evaluation of the Cypress Point Project in Moss Beach, County of San Mateo* completed by Archaeological Resource Management (ARM) on June 1, 2018.¹⁰⁷ (Appendix G)

3.4.1 Existing Conditions

3.4.1.1 Topography

3.4.1.1.1 REGIONAL SETTING

The project site is located within the Coast Ranges Geomorphic Province of California, which are northwest-trending valleys and ridges bounded on the east by the Great Valley and on the west by the Pacific Ocean. The Coast Ranges consist of a series of relatively low mountain ranges (typically between 2,000 and 4,000 feet above mean sea level [amsl]) that extend north from Point Conception to the California-Oregon border. The topography associated with the Coast Ranges is dominated by irregular rock outcrops of the landslide-prone rocks of the Franciscan Complex. The valleys and ridges of the Coast Ranges are formed by folds and faults that resulted from the collision of the Farallon plate and North American plate and subsequent strike-slip faulting along the San Andreas Fault system.

3.4.1.1.2 LOCAL SETTING

The project site is located within hillside terrain along the northwest flank of the northwest-trending Santa Cruz Mountain Range within the Coast Ranges. Terrain within the project site consists of dense vegetation and soil and rock hillside.

Ground surface elevation within the project site ranges from approximately 90 feet amsl along the northern edge of the site to about 205 feet amsl along the eastern edge. The site slopes up gently to moderately to the east-northeast except for a north-facing slope along the northern boundary of the site, which slopes moderately down to the north, and some localized flat areas near the center and eastern portions of the site. The steeply sloped wooded area along the northern boundary leads to a ravine containing Montara Creek. A steep slope is located to the west across Carlos Street and leads down to Highway 1.

¹⁰⁶ Rockridge Geotechnical. 2022. *Geotechnical Investigation Cypress Point Family Community 16th And Carlos Streets Moss Beach, California*. Rockridge Geotechnical.

¹⁰⁷ ARM. 2018. *Cultural Resource Evaluation of the Cypress Point Project in Moss Beach, County of San Mateo*. Archaeological Resource Management. June 1.

3.4.1.2 Site Geology and Subsurface Conditions

3.4.1.2.1 REGIONAL SETTING

The geologic units in the project site vicinity are mapped as Quaternary (1.6 million years ago [mya] to recent) alluvial fan (Qf) and marine terrace deposits and Cretaceous (145 to 65 mya) Montara Mountain granitic rocks (Kgr) of the Salinian Complex.¹⁰⁸

3.4.1.2.2 LOCAL SETTING

Soils on the project site are classified by the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) Web Soil Survey as Typic Argiustolls, loamy-Urban land association, 5 to 15 percent slopes.¹⁰⁹ The geotechnical site investigations further characterize the soil as 3.5 feet of undocumented fill consisting of medium stiff sandy clay or medium dense clayey sand with varying amounts of gravel in localized areas of the site.¹¹⁰ Beneath the fill is stiff to hard clay and sandy clay interbedded with medium dense to very dense clayey sand and sand with clay that extends to the top of bedrock, where encountered, or to the maximum depths explored.

The western portion of the project site contains granitic bedrock at depths of greater than 17.5 feet below ground surface (bgs) while the eastern part of the site contains granitic bedrock as shallow as 4.5 feet bgs and on marine terrace deposits (Qmt). The project site is underlain by a relatively steeply westward dipping bedrock surface that bisects the site from north to south and is overlain by shallow (4.5 to 8.5 feet bgs) terrace deposits in the eastern part and thicker (greater than 17 feet bgs) terrace deposits in the western part of the project site. The relatively steeply dipping bedrock surface is a buried and eroded paleo-sea cliff that is separating two different-age marine terrace surfaces.¹¹¹

3.4.1.3 Seismicity

Seismicity is the geographic and historical distribution of earthquakes, including their frequency, intensity, and distribution. Seismic hazards include surface rupture, ground shaking, liquefaction, landslides, subsidence, expansive soils, and soil erosion.

Faults are fractures in the crust of the earth along which land on one side has moved relative to land on the other side. Most faults are the result of repeated displacements over a long period of time. A fault trace is the line on the earth's surface defining the fault. Faults are classified as active, potentially active, and inactive based on criteria developed by the California Geological Survey (CGS). An active fault is generally one that has experienced surface displacement within the Historic period (within the last 150 years) or the Holocene period (within the last 11,000 years). A potentially active fault has experienced displacement within the Quaternary period (during the last 1.6 million years), which includes the categories Late Quaternary and Undifferentiated Quaternary. Inactive faults are those that have not experienced movement in the last 1.6 million years.

The project is located within a region characterized by high seismic activity, dominated by the San Andreas, San Gregorio, and Hayward Faults. The San Andreas Fault system is approximately 40 feet wide in the Bay Area and extends nearly 800 miles from the Salton Sea in Imperial County to Cape

¹⁰⁸ Rockridge Geotechnical, 2022.

¹⁰⁹ NRCS. 2023. Web Soil Survey. Available at: <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Accessed May 5, 2023.

¹¹⁰ Rockridge Geotechnical, 2022.

¹¹¹ Rockridge Geotechnical, 2022.

Mendocino in Humboldt County. The San Gregorio Fault extends for about 143 miles from the Big Sur region south of Monterey Bay northward to where it merges with the San Andreas Fault system near Bolinas Bay north of San Francisco.

There are multiple faults within 20 miles of the project site. The closest fault is the Seal Cove Fault, the onshore strand of the San Gregorio Fault, located approximately 0.4 mile to the south. The San Andreas Fault is 2.1 miles west and the Hayward Fault is 16.3 miles east. There are two additional faults categorized as Latest Quaternary within 20 miles of the project site: Monte Vista-Shannon (7 miles southeast) and San Gregorio (10.5 miles west). Active and potentially active faults within 20 miles of the project site are shown on Figure 3.4-1.

3.4.1.3.1 FAULT RUPTURE

Fault (surface) ruptures are generally considered to be more likely along active faults. Alquist-Priolo Fault zones are buffers around historically active faults that have been determined to be especially prone to surface fault rupture.¹¹² CGS policy is to delineate a boundary from 200 to 500 feet wide on each side of the known fault trace based on the location precision, complexity, or regional significance of the fault. If a proposed building site lies within an Alquist-Priolo earthquake fault zone, a geologic fault rupture investigation must be performed. The investigation must demonstrate that the site is not threatened by surface displacement from the fault before development permits can be issued. The nearest active fault to the project site is the Seal Cove part of the San Gregorio Fault system located approximately 0.4 mile south.¹¹³

3.4.1.3.2 GROUND SHAKING

During a seismic event, the region may be subjected to high levels of ground shaking due to the proximity of active faults in the region. All active faults in the vicinity of the project site are capable of generating significant ground shaking during a seismic event. Several parameters control the extent of ground shaking, including the magnitude and intensity of the earthquake, distance from the epicenter, and local geologic conditions. Researchers estimated that the probability of at least 1 moment magnitude (Mw) greater than or equal to 6.7 earthquake occurring in the greater San Francisco Bay Area during a 30-year period (starting in 2014) is 72%.¹¹⁴ The highest probabilities are assigned to sections of the Hayward (South), Calaveras (Central), and North San Andreas (Santa Cruz Mountains) Faults. The respective probabilities are approximately 25%, 21%, and 17%.

3.4.1.3.3 LIQUEFACTION

Liquefaction occurs when saturated, loose materials (e.g., sand or silty sand) are weakened and transformed from a solid to a near-liquid state due to increased pore water pressure. The increase in pressure is caused by strong ground motion from an earthquake. The susceptibility to liquefaction is a function of depth, density, groundwater level, and magnitude of an earthquake. Liquefaction-related phenomena can include lateral spreading, ground oscillation, flow failure, loss of bearing strength, subsidence, and buoyancy effects. For liquefaction to occur, the soil must be saturated (i.e., shallow groundwater) and relatively loose. Liquefaction more often occurs in areas underlain by young alluvium where the groundwater table is higher than 50 feet bgs.

¹¹² California Department of Conservation. 2023. Alquist-Priolo Earthquake Fault Zones. Available at: <https://www.conservation.ca.gov/cgs/alquist-priolo>. Accessed April 20, 2023.

¹¹³ Rockridge Geotechnical, 2022.

¹¹⁴ Rockridge Geotechnical, 2022.

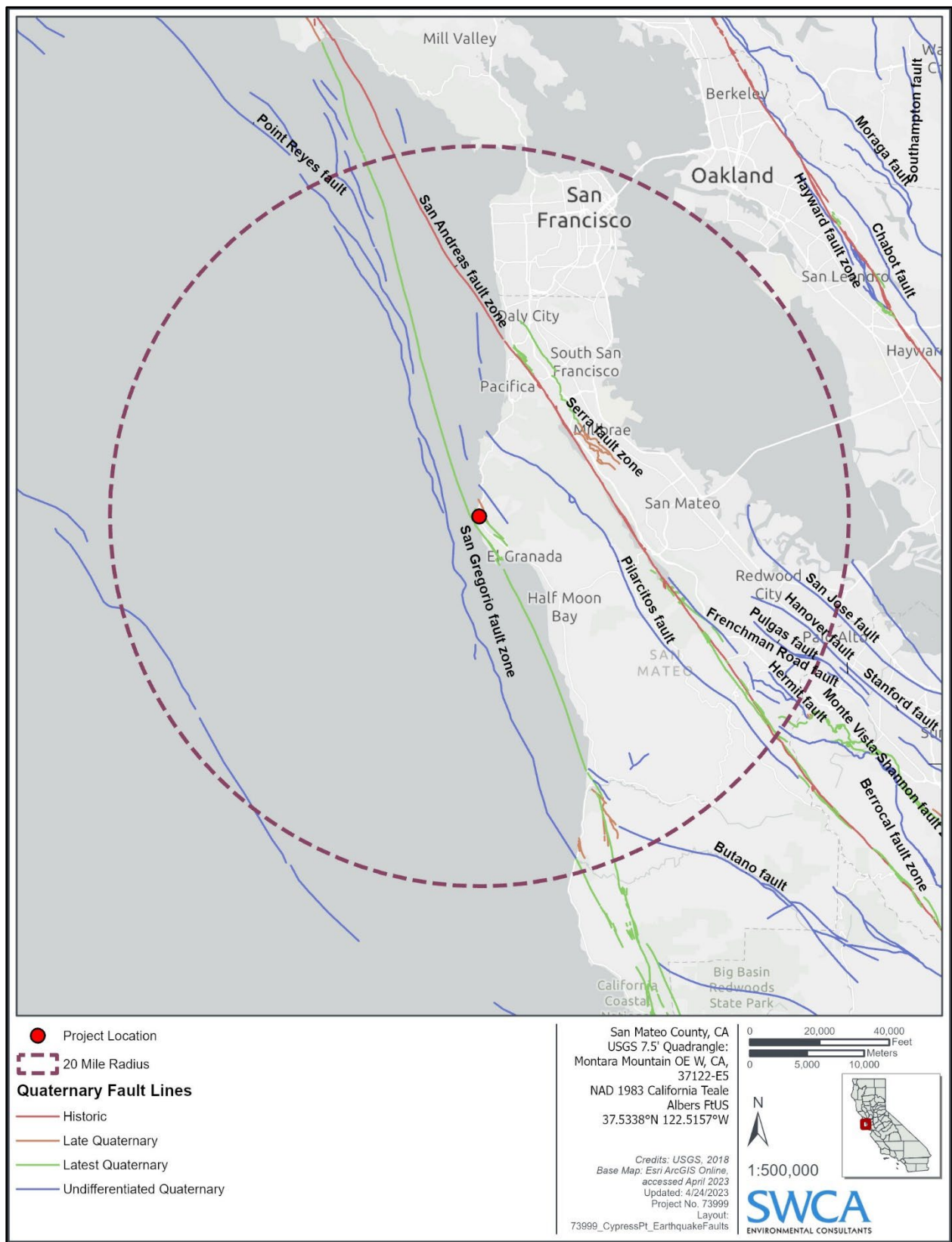


Figure 3.4-1. Quaternary fault lines.

The project site is underlain by stiff to very stiff cohesive soil and medium dense to dense clayey sand and sand with clay that is not susceptible to liquefaction because of its cohesion and/or its high relative density.¹¹⁵ Further, it appears the depth to groundwater is more than 30 feet bgs. The project site is located within the “Very Low” and “Low” liquefaction susceptibility areas as shown in the Hazard Viewer map from the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) map.¹¹⁶

3.4.1.3.4 SLOPE STABILITY AND LANDSLIDES

Landslides are defined as the movement of rock, debris, or earth masses down a slope. Landslide events include rock falls, topples, slides, spreads, and debris flows. Causes of landslides include rainfall, earthquakes, volcanic activity, groundwater changes, and alteration of a slope by human-made construction activities.

The soils on the project site are rated as severely limited for soil erosion.¹¹⁷ The project site does not contain evidence of landslides, slope instability, or erosional issues. However, according to the Hazard Viewer map from ABAG¹¹⁸ and the Planning and Building Map Viewer from the County of San Mateo (County),¹¹⁹ the ravine to the north of the project boundary is susceptible to rainfall and seismic-induced landslide hazards (Figure 3.4-2).

3.4.1.3.5 EXPANSIVE SOILS

Expansive soils generally result from specific clay minerals that expand in volume when saturated and shrink in volume when dry. The presence of this soil type can damage structures when expansion and contraction of soil crack rigid building materials (i.e., concrete, wood, drywall) if the potentially expansive soils were not considered during project design and construction.

The soils on the project site have limited shrink-swell potential.¹²⁰

3.4.1.4 Paleontological Resources

Paleontology is a multidisciplinary science that combines elements of geology, biology, chemistry, and physics to understand the history of life on Earth. Paleontological resources, or fossils, are the remains, imprints, or traces of once-living organisms preserved in rocks and sediments. These include mineralized, partially mineralized, or un-mineralized bones and teeth, soft tissues, shells, wood, leaf impressions, footprints, burrows, and microscopic remains. Paleontological resources include not only the fossils, but also the physical characteristics of the fossils’ associated sedimentary matrix.

¹¹⁵ Rockridge Geotechnical, 2022.

¹¹⁶ MTC and ABAG. 2021. Hazard Viewer Map. Available at:

https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8_ Accessed May 4, 2023.

¹¹⁷ NRCS, 2023.

¹¹⁸ MTC and ABAG, 2021.

¹¹⁹ County of San Mateo. 2023a. Planning and Building Map Viewer. Available at: https://gis.smcgov.org/Html5Viewer/Index.html?configBase=https://gis.smcgov.org/Geocortex/Essentials/REST/sites/publicplanning_sql/viewers/HTML52110/virtuaIdirectory/Resources/Config/Default_ Accessed May 5, 2023.

¹²⁰ NRCS, 2023.

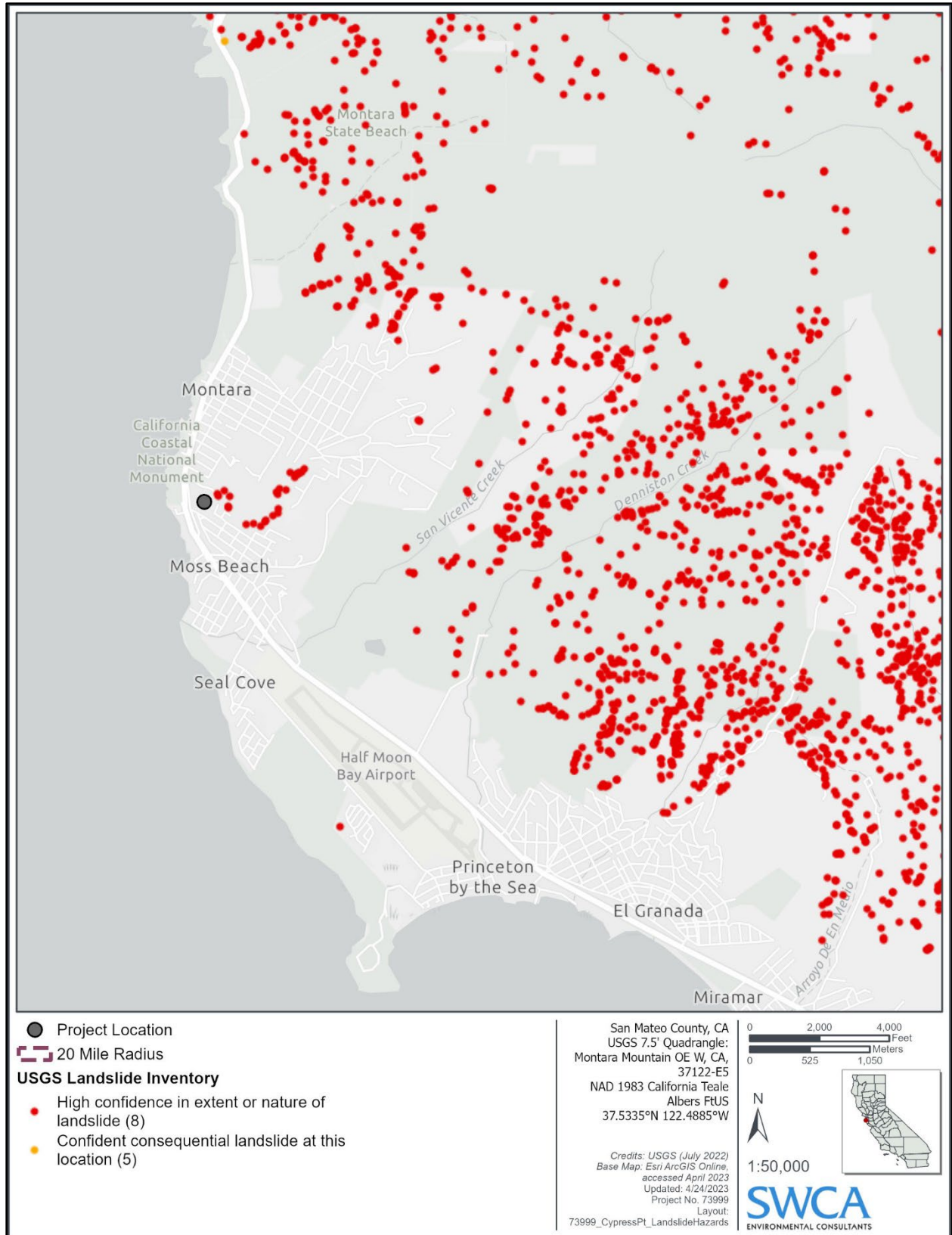


Figure 3.4-2. U.S. Geological Survey landslide inventory.

To assess any potential impacts the proposed project may have on paleontological resources, a museum records search was requested from the online records database of the University of California Museum of Paleontology, and a review of the relevant scientific literature was conducted.¹²¹ These data were used to assess the potential of each geologic unit present in the project site to preserve fossil resources, following the paleontological potential rankings of the Society of Vertebrate Paleontology (SVP).

The project site has Pleistocene marine terrace deposits underlain by Cretaceous granitic rocks.¹²² The granitic rocks do not contain paleontological resources, but these resources are present in the Pleistocene marine terrace deposits. Both the records search and the review of relevant scientific literature revealed no paleontological resources within the project site. The records search revealed nine localities containing unnamed late Pleistocene deposits within San Mateo County. The closest locality is approximately 3 miles south of the project site.

3.4.2 Regulatory Setting

3.4.2.1 Federal Regulations

3.4.2.1.1 CLEAN WATER ACT

Under Clean Water Act (CWA) Section 402 (33 United States Code [U.S.C.] 1251 et seq.), the National Pollutant Discharge Elimination System (NPDES) controls water pollution (including from soil and sediment erosion) by regulating sources of pollution to waters of the U.S. The CWA is implemented on a state and local level in California primarily by the State Water Resources Control Board and the nine Regional Water Quality Control Boards (RWQCBs), collectively.

The San Mateo Countywide Water Pollution Prevention Program is a partnership of the City/County Association of Governments, each incorporated city and town in San Mateo County, and the County. The Municipal Regional Stormwater NPDES Permit was issued by the San Francisco Bay RWQCB in compliance with the *Water Quality Control Plan, San Francisco Bay Basin* (Basin Plan)¹²³. The City/County Association of Governments shares one common NPDES Permit.

Participating agencies (including the County) must comply with the provisions of the countywide permit by ensuring that new development and redevelopment mitigate, to the maximum extent practicable, water quality impacts to stormwater runoff during the construction and operation periods of projects. Projects disturbing more than 1 acre of land during construction are also required to file a Notice of Intent with the RWQCB to be covered under the State NPDES General Construction Permit for discharges of stormwater associated with construction activity. A stormwater pollution prevention plan (SWPPP) must be developed and implemented for each site covered by the General Construction Permit and include best management practices (BMPs) that would reduce impacts on surface water quality from soil erosion. Additionally, private or public projects that create and/or replace 10,000 or more square feet of impervious surface must implement low-impact development treatment measures to control stormwater. For more information about the NPDES Permit, see State Regulations and Local Regulations in Section 3.7.2, Regulatory Setting, within Section 3.7, Hydrology and Water Quality.

¹²¹ ARM, 2018.

¹²² ARM, 2018.

¹²³ San Francisco Bay Regional Water Quality Control Board. 2019. *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*. Available at: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/docs/BP_all_chapters.pdf. Accessed March 22, 2023.

3.4.2.2 State Regulations

3.4.2.2.1 SEISMIC HAZARD MAPPING ACT

In accordance with Public Resources Code (PRC) Chapter 7.8, Division 2, the California Department of Conservation, CGS is directed to delineate seismic hazard zones through the Seismic Hazards Zonation Program. The purpose of the act is to reduce the threat to public health and safety and to minimize the loss of life and property by identifying and mitigating seismic hazards, such as those associated with strong ground shaking, liquefaction, landslides, other ground failures, or other hazards caused by earthquakes.

City, county, and state agencies are directed to use seismic hazard zone maps developed by CGS in their land-use planning and permitting processes. In accordance with the Seismic Hazards Mapping Act, site-specific geotechnical investigations must be performed before permitting most urban development projects within seismic hazard zones.

3.4.2.2.2 WATER QUALITY CONTROL PLAN FOR THE SAN FRANCISCO BAY REGION

Under CWA Section 402 (33 U.S.C. 1251 et seq.), the NPDES controls water pollution by regulating sources of pollution to waters of the U.S. Under the NPDES Permit, construction projects must develop an erosion and sediment control plan (ESCP) and have it approved by the local land agency before issuing grading or building permits. The ESCP must include BMPs necessary to prevent erosion of unstable or denuded areas and stabilize disturbed bare-earth areas.

3.4.2.2.3 ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT

The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act; California PRC Section 2621 et seq.) was passed to reduce the risk to life and property from surface faults in California. The Alquist-Priolo Act prohibits construction of most types of structures intended for human occupancy directly on or across the surface traces of active faults and strictly regulates construction in the corridors along active faults (earthquake fault zones). It also defines criteria for identifying active faults, giving legal weight to terms such as “active,” and establishes a process for reviewing building proposals in and adjacent to earthquake fault zones. Under the Alquist-Priolo Act, faults are zoned and construction along or across them is strictly regulated if they are “sufficiently active” and “well defined.” Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults.

3.4.2.2.4 CALIFORNIA BUILDING CODE

Title 24 of the California Building Codes (specifically Title 24 California Code of Regulations [CCR], Part 2) specifies standards for geologic and seismic hazards other than surface faulting. The State of California provides minimum standards for building design through the California Building Code. The California Building Code is based on the International Building Code, which is used widely throughout the United States (generally adopted on a state-by-state or district-by-district basis) and has been modified for conditions within California.

In 2023, the 2022 revised version of the California Building Code took effect. Chapter 16 of the California Building Code contains definitions of seismic sources and the procedure used to calculate seismic forces on structures. Chapter 18 provides requirements for conducting geotechnical site investigations including investigations of soil, water table, rock strata, excavation sites, seismic design, grading and filling hazards, and foundation drainage.

3.4.2.2.5 CALIFORNIA PUBLIC RESOURCES CODE

California PRC, Section 5097.5 states that “no person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.” As used in this section, “public lands” means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

3.4.2.3 Local Regulations

3.4.2.3.1 COUNTY OF SAN MATEO GENERAL PLAN

Chapter 2, Soil Resources, of the 1986 County General Plan discusses the existing soil resources and opportunities to protect soil resources. The County periodically updates goals and policies to support the 1986 General Plan and provides updates on the County Planning and Building Department website. The County most recently updated the policies in 2013.¹²⁴ The current list of updated goals and policies that are relevant to soils, geology, and geotechnical hazards are:

- **Goal 2.2 Minimize Soil Erosion:** Minimize soil erosion through application of appropriate conservation practices.
 - **Policy 2.17 Regulate Development to Minimize Soil Erosion and Sedimentation:** Regulate development to minimize soil erosion and sedimentation; including, but not limited to, measures which consider the effects of slope, minimize removal of vegetative cover, ensure stabilization of disturbed areas and protect and enhance natural plant communities and nesting and feeding areas of fish and wildlife.
 - **Policy 2.20 Regulate Location and Design of Development in Areas With Productive Soil Resources:** Regulate location and design of development in a manner which is most protective of productive soil resources, including, but not limited to, measures which require clustering of structures.
 - **Policy 2.21 Protect Productive Soil Resources Against Soil Conversion:** Regulate land use and subdivision of productive soil resources and encourage appropriate management practices to protect against soil conversion. Regulations should place priorities according to the relative productive characteristics of the resource.
 - **Policy 2.23 Regulate Excavation, Grading, Filling, and Land Clearing Activities Against Accelerated Soil Erosion:** Regulate excavation, grading, filling, and land clearing activities to protect against accelerated soil erosion and sedimentation.
 - **Policy 2.25 Regulate Topsoil Removal Operations Against Accelerated Soil Erosion:** Regulate topsoil removal operations to protect against accelerated soil erosion and sedimentation through measures which ensure slope stabilization and surface drainage control.

¹²⁴ County of San Mateo. 2023b. General Plan Policies: Goals for Implementation of the General Plan. Available at: https://www.smcgov.org/planning/general-plan-policies_ Accessed May 5, 2023.

- **Goal 15.3 Incorporate Information on Natural Hazards into Land Use and Development Decisions:** Integrate data on natural hazards into review of land use and development proposals in order to identify hazardous areas, potential constraints to development and/or appropriate mitigation measures.
 - **Policy 15.9 Designation of Geotechnical Hazard Areas:** Designate as Geotechnical Hazard Areas those areas that meet the definition of geotechnical hazards, including but not limited to:
 - The areas illustrated on the Natural Hazards map as Alquist-Priolo Special Studies Zones, Tsunami and Seiche Flooding Areas, Coastal Cliff Stability Areas, and Areas of High Landslide Susceptibility.
 - Any additional area delineated by other investigations, mapped in greater detail, and/or considered to be hazardous by the County Department of Public Works, including but not limited to areas delineated on the Geotechnical Hazards Synthesis maps, maps prepared by U.S.G.S. and other appropriate sources.
 - **Policy 5.12 Locating New Development in Areas Which Contain Natural Hazards:**
 - As precisely as possible, determine the areas of the County where development should be avoided or where additional precautions should be undertaken during review of development proposals due to the presence of natural hazards.
 - Give preference to land uses that minimize the number of people exposed to hazards in these areas.
 - Determine appropriate densities and development.
 - Require detailed analysis of hazard risk and design of appropriate mitigation when development is proposed in these areas, including assessment of hazardous conditions expected to be exacerbated by climate change, such as increased risks of fire, flooding, and sea level rise.
 - **Policy 15.20 Review Criteria for Locating Development in Geotechnical Hazard Areas:**
 - Avoid the siting of structures in areas where they are jeopardized by geotechnical hazards, where their location could potentially increase the geotechnical hazard, or where they could increase the geotechnical hazard to neighboring properties.
 - Wherever possible, avoid construction in steeply sloping areas (generally above 30%).
 - Avoid unnecessary construction of roads, trails, and other means of public access into or through geotechnical hazard areas.
 - In extraordinary circumstances when there are no alternative building sites available, allow development in geotechnically hazardous and/or steeply sloping areas when appropriate structural design measures to ensure safety and reduce hazardous conditions to an acceptable level are incorporated into the project.
 - **Policy 15.21 Requirement for Detailed Geotechnical Investigations:**
 - In order to more precisely define the scope of the geotechnical hazards, the appropriate locations for structures on a specific site and suitable mitigation measures, require an adequate geotechnical investigation for public or private development proposals located: (1) in an Alquist-Priolo Special Studies Zone, or (2) in any other area of the County where an investigation is deemed necessary by the County Department of Public Works.
 - In order to minimize economic impacts on applicants for development and avoid duplication of information, use the existing information base when the Department of Public Works or appropriate County agency determines that it is adequate.

- **Policy 15.24 Incorporate Geotechnical Concerns During Review of Proposals for New Development:** Incorporate geotechnical concerns into the review of proposals for new development through measures including but not limited to: (1) regulation of land use and limitation of density; (2) siting and design of roads, grading, utilities, improvements and structures; (3) requiring site-specific geotechnical investigations where appropriate and conformance to the recommendations of those investigations; (4) conformance to defined hazardous areas design criteria; and (5) conformance with established building code requirements.

3.4.2.3.2 COUNTY OF SAN MATEO LOCAL HAZARD MITIGATION PLAN

In 2021, a partnership of 36 local governments and special districts in San Mateo County issued the 2021 Multijurisdictional Local Hazard Mitigation Plan (LHMP), a large regional and cross-jurisdictional effort to plan for the reduction of risk from natural and human-made disasters. The LHMP assesses hazard vulnerabilities and identifies mitigation actions that jurisdictions will pursue to reduce the level of injury, property damage, and community disruption that might otherwise result from such events. The LHMP addresses natural and human-caused hazards, including flooding, drought, wildfire, landslides, severe weather, terrorism, cyber threats, pandemic, and the impact of climate change on hazards, as well as other hazards.

3.4.2.3.3 COUNTY OF SAN MATEO EXCAVATING, GRADING, FILLING, AND CLEARING REGULATIONS

Chapter 8, Division VII of the San Mateo County Ordinance Code is titled Regulations for Excavating, Grading, Filling, and Clearing on Lands in Unincorporated San Mateo County. This ordinance requires a grading permit for activities involving grading (Section 8602.1) and a land clearing permit for removal of vegetation when:

- The land area to be cleared is 5,000 square feet or greater, within any two-year period except in County Scenic Corridors where vegetation removal is greater than 1,000 square feet;
- Existing slopes are greater than 20 percent; or
- (c) The land area to be cleared is in any sensitive habitat or buffer zone as identified in the County General Plan” (Section 8602.2).

Section 8605.1 of the ordinance requires an ESCP that conforms to standards as detailed in the Grading Permit Performance Standards Handbook. Section 8605.2 states that standards in the Grading Permit Performance Standards Handbook are to apply to all aspects of the proposed grading and are intended to be operational during all stages of development, and Section 8605.3 requires that geotechnical reports be prepared by a professional geotechnical consultant under the direction of a soils engineer and an engineering geologist in accordance with the current Minimum Standards for Geotechnical Reports and the Grading Permit Performance Standards Handbook.

3.4.2.3.4 COUNTY OF SAN MATEO LOCAL COASTAL PROGRAM

The Local Coastal Program provides policies regarding development and project design standards in the coastal zone of San Mateo County.¹²⁵

¹²⁵ County of San Mateo. 2013. Local Coastal Program. Available at: <https://www.smcgov.org/planning/local-coastal-program>. Accessed May 20, 2023.

9.8 Regulation of Development on Coastal Bluff Tops

a. Permit bluff and cliff top development only if design and setback provisions are adequate to assure stability and structural integrity for the expected economic life span of the development (at least 50 years) and if the development (including storm runoff, foot traffic, grading, irrigation, and septic tanks) will neither create nor contribute significantly to erosion problems or geologic instability of the site or surrounding area.

b. Require the submittal of a site stability evaluation report for an area of stability demonstration prepared by a soils engineer or a certified engineering geologist, as appropriate, acting within their areas of expertise, based on an on-site evaluation. The report shall consider:

(1) Historic, current and foreseeable cliff erosion, including investigation of recorded land surveys and tax assessment records in addition to the use of historic maps and photographs where available, and possible changes in shore configuration and transport.

(2) Cliff geometry and site topography, extending the surveying work beyond the site as needed to depict unusual geomorphic conditions that might affect the site and the proposed development.

(3) Geologic conditions, including soil, sediment and rock types and characteristics in addition to structural features such as bedding, joints, and faults.

(4) Evidence of past or potential landslide conditions, the implications of such conditions for the proposed development, and the potential effects of the development on landslide activity.

(5) Wave and tidal action, including effects of marine erosion on sea cliffs.

(6) Ground and surface water conditions and variations, including hydrologic changes caused by the development (e.g., introduction of sewage effluent and irrigation water to the groundwater system; alterations in surface drainage).

(7) Potential effects of seismic forces resulting from a maximum credible earthquake.

(8) Effects of the proposed development including siting and design of structures, septic system, landscaping, drainage, and grading, and impacts of construction activity on the stability of the site and adjacent area.

(9) Any other factors that may affect slope stability.

(10) Potential erodibility of site and mitigating measures to be used to ensure minimized erosion problems during and after construction (i.e., landscaping and drainage design).

c. The area of demonstration of stability includes the base, face, and top of all bluffs and cliffs. The extent of the bluff top considered should include the area between the face of the bluff and a line described on the bluff top by the intersection of a plane inclined at a 20° angle from the horizontal passing through the toe of the bluff or cliff, or 50 feet inland from the edge of the cliff or bluff, whichever is greater.

d. Prohibit land divisions or new structures that would require the need for bluff protection work.

9.10 Geological Investigation of Building Sites

Require the County Geologist or an independent consulting certified engineering geologist to review all building and grading permits in designated hazardous areas for evaluation of potential geotechnical

problems and to review and approve all required investigations for adequacy. As appropriate and where not already specifically required, require site specific geotechnical investigations to determine mitigation measures for the remedy of such hazards as may exist for structures of human occupancy and/or employment other than those considered accessory to agriculture as defined in Policy 5.6.

“Hazards areas” and “hazards” are defined as those geotechnical hazards shown on the current Geotechnical Hazards Synthesis Maps of the General Plan and the LCP Hazards Maps. A copy of the report of all geologic investigations required by the California Division of Mines and Geology shall be forwarded to that agency.

3.4.3 Thresholds of Significance

The determinations of significance of project impacts are based on applicable policies, regulations, goals, and guidelines defined by the California Environmental Quality Act and the County. Specifically, the project would be considered to have a significant effect on geology and soils if the effects exceed the following significance criteria:

1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - a. 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.
 - b. Strong seismic ground shaking?
 - c. Seismic-related ground failure, including liquefaction and differential settling?
 - d. Landslides?
 - e. Coastal cliff/bluff instability or erosion?
2. Would the project result in substantial soil erosion or the loss of topsoil?
3. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?
4. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?
5. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?
6. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Each of these thresholds is discussed under Section 3.4.5, Impacts and Mitigation Measures.

3.4.4 Impact Assessment and Methodology

Geologic and seismic information for the project site was derived from various sources and compiled in this chapter to develop a comprehensive understanding of the potential constraints and hazards associated with project construction and operation. Sources of pertinent information include regional geologic and hazard maps prepared by the CGS, U.S. Geological Survey, NRCS, Redwood City, and the California

Department of Conservation, all of which reflect the most up-to-date understanding of regional geology and seismicity.

In addition, geologic and seismic analysis relied on the site-specific geotechnical investigation, provided by Rockridge Geotechnical.¹²⁶ The analysis also considers existing regulations that apply to geotechnical design and construction, including the California Building Code. Through compliance with the existing codes and ordinances, the project would be required to demonstrate compatibility with the subsurface geology and local seismic conditions before issuing building permits.

3.4.5 Impacts and Mitigation Measures

Impact GEO-1: Would the project 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 (Less Than Significant)***

The active Seal Cove part of the San Gregorio Fault system lies approximately 0.4 mile south of the project site. Several subsidiary splays of the Seal Cove Fault have been mapped sub-parallel and to the northeast of Seal Cove Fault that project toward the site from the southeast; however, the CGS has concluded that these subsidiary splays are not Holocene active and extensive trench studies to the southeast of the site suggest that these fault traces do not strike through the site.¹²⁷

Historically, ground surface displacements closely follow the trace of geologically young faults. The site is not within an earthquake fault zone, as defined by the Alquist-Priolo Act, and no known active or potentially active faults exist on-site. Therefore, the risk of fault offset and consequent secondary ground failure at the project site from a known active fault is very low. Impacts would be less than significant.

- ii. Strong seismic ground shaking? (Less Than Significant)***

The project site is located in the San Francisco Bay Area, which is considered one of the most seismically active regions in California. As described in Section 3.4.1.3, the seismicity of the project site is governed by the activity of the nearby San Gregorio Fault, although ground shaking from future earthquakes on the San Andreas and Hayward Faults would also be felt at the site. The intensity of earthquake ground motion at the site will depend upon the characteristics of the generating fault, distance to the earthquake epicenter, and magnitude and duration of the earthquake. However, a large earthquake on one of the nearby faults would likely cause strong to very strong ground shaking at the project site.

The proposed project would be designed and constructed in accordance with the 2022 California Building Code, as adopted in the Division VII (Building Regulations) of the County Ordinance Code.¹²⁸ Among many seismic requirements, the California Building Code requires foundations and structures to be designed and constructed to withstand the ground motions (i.e., peak ground accelerations) that have a 10% chance of being exceeded in 50 years (equivalent to a $1/475$ annual chance of being exceeded). The 2022 California Building Code and standard geotechnical engineering practice require identifying seismic design parameters to inform all earthwork requirements, foundation designs, retaining walls, and

¹²⁶ Rockridge Geotechnical, 2022.

¹²⁷ Rockridge Geotechnical, 2022.

¹²⁸ County of San Mateo, Board of Supervisors. 2023c. Ordinance No. 4873. Available at: https://www.smcgov.org/media/101471/download?inline=_ Accessed May 5, 2023.

concrete/building material specifications. Seismic design parameters and recommendations for the project are described in the project-specific geotechnical site investigation.¹²⁹

The project would not create the potential for or exacerbate existing conditions related to seismic ground shaking over existing conditions. Compliance with the California Building Code and recommendations contained in the geotechnical investigation would ensure the project does not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking, and impacts would be less than significant.

iii. Seismic-related ground failure, including liquefaction and differential settling? (Less Than Significant)

The project site is located within the “Very Low” and “Low” liquefaction susceptibility areas as shown in the ABAG Hazard Viewer map and is therefore outside a hazard area.¹³⁰ The site-specific geotechnical investigation concluded that due to the composition, cohesion, high density, and depth to groundwater, the project site is not susceptible to liquefaction. Therefore, the potential for seismic-related ground failure related to liquefaction is considered low,¹³¹ and impacts would be less than significant.

iv. Landslides? (Less Than Significant)

The project site is in an area where the cliff stability level is designated as high.¹³² However, construction of the project would disturb approximately 5 acres of the 11-acre project site. The site-specific geotechnical investigation concluded the potential for landslides at the project site under both static and seismic conditions is low due to the lack of evidence of historical slope instability on-site, the high shear strength of the soil, weathered bedrock underlying the site, and the apparent absence of any significant seepage on the slope faces. Further, the geotechnical investigation contains site-specific recommendations for site preparation and grading, foundation and retaining wall design, and seismic design. Recommendations from the geotechnical investigation related to landslides and instability include drainage of surface water away from buildings to prevent water ponding and subsurface water collection, the dimensions of spread footing foundations and retaining walls, and inclusion of capillary moisture break and water vapor retarder beneath the concrete floor slabs. Compliance with the 2022 California Building Code and the recommendations contained in the geotechnical investigation would ensure the project does not impact landslides or slope stability at the site or in the surrounding area. Therefore, impacts would be less than significant.

v. Coastal cliff/bluff instability or erosion? (Less Than Significant)

Refer to discussion under Impact GEO-1.iv above.

Impact GEO-2: Would the project result in substantial soil erosion or the loss of topsoil? (Less Than Significant)

Construction

Project construction would remove approximately 1 acre of existing impervious surfaces on-site, totaling approximately 20,840 cubic yards of concrete and 295 trees. Construction would excavate approximately

¹²⁹ Rockridge Geotechnical, 2022.

¹³⁰ MTC and ABAG, 2021.

¹³¹ Rockridge Geotechnical, 2022.

¹³² San Mateo County. Undated. San Mateo County General Plan Natural Hazards Attachment J. Available at: <https://www.smcgov.org/media/127161/download?inline=>. Accessed June 20, 2023.

9,506 cubic yards of soil, and approximately 9,881 cubic yards of fill would need to be imported to meet the total fill requirement of 19,388 cubic yards.

The project would be required to implement a County-approved ESCP and SWPPP, per the requirements of the San Francisco Bay RWQCB Municipal Regional Stormwater NPDES Permit and the San Mateo Countywide Stormwater Pollution Prevention Program.¹³³ These plans would include construction-related pollution prevention measures and BMPs to control erosion and sedimentation impacts and stabilize disturbed bare-earth areas. The project also includes a Site Management Plan, which outlines the presence of contaminants of potential concern. The Site Management Plan outlines measures to minimize dust control, stormwater runoff, and tracking of soil off-site. Section 3.7, Hydrology and Water Quality, provides additional information about ESCP, SWPPP, and Municipal Regional Stormwater NPDES requirements and related permits.

Areas of the project site disturbed by grading during construction would be protected against erosion during rainfall events. The bare portions of cut and fill slopes would be planted with deep-rooted, fast-growing vegetation before winter and the rainy season. As described in the geotechnical investigation and the ESCP, the finished surface would be covered with appropriate erosion matting, hydro-seeded, or another BMP to prevent silt from entering storm drains during and after construction.

With implementation of the ESCP, NPDES, and the recommendations within the geotechnical investigation, construction of the project would not result in substantial soil erosion or the loss of topsoil, and impacts would be less than significant.

Operation

Construction of the project's new buildings and hardscape improvements would increase impervious surfaces on-site by approximately 143,254 square feet. The addition of impervious surfaces would prevent surface water infiltration into the ground and could increase the stormwater runoff volume and rate compared to existing conditions, which could in turn accelerate soil erosion and loss of topsoil if stormwater was conveyed onto adjacent undeveloped land. However, as described in Section 3.7, Hydrology and Water Quality, the project site would be divided into four drainage management areas for stormwater control, which would contain inlets at low points throughout the hardscape and landscape areas (see Figure 2.5-12). Per recommendations included in the geotechnical site investigation, to control stormwater runoff and reduce the potential for water ponding adjacent to the buildings, the project would include roof downspouts, and ground surfaces adjacent to the buildings would have a specific gradient to direct water into drainage facilities.

Three of the drainage management areas would include bioretention areas that direct runoff into the permanent drainage improvements, including two catch basins that lead into a storm drain within Carlos Street. Runoff generated by the project site would be minimized by implementing all site-specific designs stipulated in future geotechnical site investigation recommendations and complying with the future Municipal Regional Stormwater NPDES Permit, as applicable.

Since the project also includes a system of drainage swales that are designed to control and redirect runoff away from undeveloped surfaces subject to erosion, operation of the project would not result in substantial soil erosion or the loss of topsoil, and impacts would be less than significant.

¹³³ County of San Mateo. 2023c. *Erosion and Sediment Control Plan Requirements*. Available at: <https://www.smcgov.org/planning/erosion-and-sediment-control-plan-requirements>. Accessed May 5, 2023.

Impact GEO-3: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? (Less Than Significant)

A significant impact related to an unstable geologic unit or soil typically occurs if a project is built in an unstable area without proper site preparation or design features that provide adequate building foundations, thus posing a hazard to life and property. The project is not located on a geologic unit or soil that is unstable or would become unstable as a result of the project. The site-specific geotechnical investigation contains recommendations and design parameters to ensure that the project has suitable foundations and stability. Impacts related to geologic units or soil instability would be less than significant.

Impact GEO-4: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? (Less Than Significant)

The project site is considered to have a low to moderate potential of being located on expansive soils. The site is underlain by stiff cohesive soil, dense clayey sand, and sand with clay that extends to the top of bedrock.¹³⁴ The site has low plasticity, and therefore, low expansion potential. The project would not exacerbate existing site soil conditions in regard to expansive soils and impacts would be less than significant.

Impact GEO-5: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? (No Impact)

See Appendix B, Initial Study, Section 2.7, Geology and Soils. The proposed project would not require the use of septic or other alternative disposal wastewater systems. There would be no impact.

Impact GEO-6: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (Less Than Significant with Mitigation Incorporated)

Project-related ground disturbance, such as grading, in previously undisturbed sediments could result in a significant impact on paleontological resources if construction were to impact sediments with high paleontological sensitivity. Although there are no mapped paleontological resources on-site, the Pleistocene marine terrace deposits are paleontologically sensitive.

The project site has Pleistocene marine terrace deposits underlain by Cretaceous granitic rocks.¹³⁵ The granitic rocks do not contain paleontological resources, but the Pleistocene marine terrace deposits have the potential to contain resources. In the event of an accidental discovery, **MM-GEO-1** would be implemented to reduce potential impacts on paleontological resources to a less-than-significant level:

GEO-1 Accidental Discovery of Paleontological Resources

In the event that paleontological resources are exposed during project work, regardless of the location or geologic units in which the fossils are found, work in the immediate vicinity of the find must stop until a Qualified Professional Paleontologist (Qualified Paleontologist/Project

¹³⁴ Rockridge Geotechnical, 2022.

¹³⁵ ARM, 2018.

Paleontologist/Principal Paleontologist), who meets or exceeds the SVP definition, can evaluate the significance of the find. Ground-disturbing activities may continue in other areas outside an appropriate buffer, usually 50 feet. If the paleontologist determines the discovery to be significant, the fossil(s) shall be salvaged.

Therefore, implementation of **MM-GEO-1** would reduce impacts to less than significant with mitigation incorporated.

3.4.6 Cumulative Impacts

Impact C-GEO-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to geology and soils? (Less than Significant)

Geologic and soils hazards are largely site-specific and localized. The cumulative projects could require various levels of excavation or cut and fill, which would affect local geologic conditions. However, the cumulative projects would also be subject to the regulatory requirements for geotechnical review and would be required to comply with local and state building codes. In addition, site-specific geotechnical review would reduce each cumulative project's impacts associated with geology and seismic safety, and site-specific design features would be developed, when necessary, based on site conditions. Similar to the proposed project, cumulative projects in the project site vicinity would be subject to these mandatory seismic safety standards and design review procedures, if applicable. Compliance with these standards and procedures would ensure that the effects from nearby cumulative projects would be less than significant. The proposed project would not substantially contribute to a significant cumulative impact. No mitigation is required.

3.5 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

This section describes the existing greenhouse gas (GHG) emissions in the area of the project site and evaluates the potential environmental consequences of construction and operation of the proposed project. Additionally, this chapter describes the environmental setting, including regulatory framework and the existing GHG setting and baseline conditions, and identifies mitigation measures, if required, that would avoid or reduce significant impacts. This evaluation is based on the methodology recommended by the Bay Area Air Quality Management District (BAAQMD). GHG emissions modeling was completed and relies on the conclusions in the following study:

- *Air Quality and Greenhouse Gas Technical Report*, SWCA Environmental Consultants (SWCA), 2023.¹³⁶ (Included as Appendix C)

Project effects related to GHG emissions and climate change were compared against county and state regulations for consistency.

3.5.1 Environmental Setting

Global climate change refers to the changes in average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation, and storms. Global warming, a related concept, is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. There is a general scientific consensus that global climate change is occurring, caused in whole or in part by increased emissions of GHGs that keep the Earth's surface warm by trapping heat in the Earth's atmosphere, in much the same way as glass traps heat in a greenhouse. The Earth's climate is changing because human activities, primarily the combustion of fossil fuels, are altering the chemical composition of the atmosphere through the buildup of GHGs. GHGs are released by the combustion of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect. While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 has led to increased efforts devoted to GHG emissions reduction and climate change research and policy.

Regarding the adverse effects of global warming, as reported by Assembly Bill (AB) 2538: "Global warming poses a serious threat to the economic well-being, public health, natural resources and the environment of California." Over the past few decades, the energy intensity of the national and state economies has been declining due to the shift to a more service-oriented economy. California ranked fifth lowest among the states in carbon dioxide (CO₂) emissions from fossil fuel consumption per unit of gross state product. However, in terms of total CO₂ emissions, California is second only to Texas in the nation and is the 16th largest source of climate change emissions in the world, exceeding most nations.

3.5.1.1 GHG Background

GHGs include CO₂, methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Carbon is the most abundant GHG. Other GHGs are less abundant but have higher global warming potential than CO₂. Thus, emissions of other GHGs are frequently expressed in the equivalent mass of CO₂, denoted as CO₂e. Forest fires, decomposition, industrial processes, landfills, and consumption of fossil fuels for power generation, transportation, heating,

¹³⁶ SWCA. 2023. *Air Quality and Greenhouse Gas Technical Report*. San Francisco, CA (office): SWCA Environmental Consultants.

and cooking are the primary sources of GHG emissions. The primary GHGs attributed to global climate change are described below.

- **CO₂:** In the atmosphere, carbon generally exists in its oxidized form, as CO₂. Natural sources of CO₂ include the respiration (breathing) of humans, animals, and plants; volcanic outgassing; decomposition of organic matter; and evaporation from the oceans. Anthropogenic sources of CO₂ include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. Anthropogenic sources of CO₂ amount to over 30 billion tons per year, globally.¹³⁷ Natural sources release substantially larger amounts of CO₂. Nevertheless, natural removal processes, such as photosynthesis by land and ocean-dwelling plant species, cannot keep pace with this extra input of human-made CO₂, and, consequently, the gas is building up in the atmosphere.
- **CH₄:** When organic matter decomposes in environments lacking sufficient oxygen, CH₄ is produced. Natural sources include wetlands, termites, and oceans. Decomposition occurring in landfills accounts for most human-generated CH₄ emissions in California and in the United States as a whole. Agricultural processes such as intestinal fermentation, manure management, and rice cultivation are also significant sources of CH₄ in California.
- **N₂O:** GHG N₂O is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for most natural source emissions. N₂O is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion produce N₂O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N₂O emissions in California.
- **HFCs, PFCs, and SF₆:** HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol (1987), an international treaty that was approved on January 1, 1989, and was designed to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion. PFCs and SF₆ are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no primary aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry leads to greater use of PFCs.

The magnitude of the impact on global warming differs among the GHGs. The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential (GWP). GWPs are one type of simplified index based upon radiative properties used to estimate the potential future impacts of emissions of different gases upon the climate system, expressed as a function of how much warming would be caused by the same mass of CO₂. Thus, GHG emissions are typically measured in terms of pounds or tons of CO₂ equivalents (CO₂e). GWPs are based on a number of factors, including the radiative efficiency (heat-absorbing ability) of each gas relative to that of CO₂, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years) relative to that of CO₂. The larger GWP, the more that a given gas warms the Earth compared to CO₂ over that time period. HFCs, PFCs, and SF₆ have a greater “global warming potential” than CO₂. In other words, these other GHGs have a greater contribution to global warming than CO₂ on a per-mass basis. However, CO₂ has the greatest impact on global warming because of the relatively large quantities of CO₂ emitted into the atmosphere.

¹³⁷ Friedlingstein, P., M.W. Jones, M. O’Sullivan, R.M. Andrew, D.C.E. Bakker, J. Hauck, C. Le Quéré, et al. 2022. Global Carbon Budget 2021. Available at: essd-14-1917-2022.pdf. Accessed June 1, 2023

A summary of the atmospheric lifetime and GWP of selected gases is presented in Table 3.5-1. As indicated in this table, GWPs range from 1 to 23,500 based on IPCC assessment reports. IPCC has released three assessment reports (AR4, AR5, and AR6) with updated GWPs, however, California Air Resources Board (CARB) reports the statewide GHG inventory using the AR4 GWPs, which is consistent with international reporting standards. By applying the GWP ratios, project-related equivalent mass of CO₂, denoted as CO₂e emissions, can be tabulated in metric tons per year.

Table 3.5-1. Global Warming Potentials

GHG	GWP Values for 100-year Time Horizon		
	AR4*	AR5	AR6
CO ₂	1	1	1
CH ₄	25	28	Fossil origin – 29.8 Non-fossil origin – 27.2
N ₂ O	298	265	273
Select HFCs	124–14,800	4–12,400	–
SF ₆	22,800	23,500	–

Sources: IPCC (2007, 2013).^{138, 139}

* For consistency with the U.S. Environmental Protection Agency (EPA) and its inventory of GHG reporting, we have represented values from AR4 of the IPCC report in this report.

For approximately 1,000 years before the Industrial Revolution, the amount of GHGs in the atmosphere remained relatively constant. During the twentieth century, however, scientists observed a rapid change in the climate and the quantity of climate change pollutants in the Earth’s atmosphere, which is attributable to human activities. The recent sixth assessment report (AR6) of the IPCC summarizes the latest scientific consensus on climate change. It finds that atmospheric concentrations of CO₂ have increased by 50% since the industrial revolution and continue to increase at a rate of 2 parts per million each year. By the 2030s, and no later than 2040, the world will exceed 1.5 degrees Celsius warming.¹⁴⁰ These recent changes in the quantity and concentration of climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants. In the past, gradual changes in the earth’s temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic time frame but within a human lifetime.

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth’s temperature are hard to predict. Projections

¹³⁸ Intergovernmental Panel on Climate Change (IPCC). 2007. IPCC Fourth Assessment Report: Climate Change 2007 (AR4): The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Table 2.14. Available at: <https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg1-chapter2-1.pdf>. Accessed June 1, 2023.

¹³⁹ IPCC. 2013. IPCC Fifth Assessment Report: Climate Change 2013 (AR5): The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Available at: https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf. Accessed June 1, 2023.

¹⁴⁰ CARB. 2022. 2022 Scoping Plan Update. Available at: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents#:~:text=The%202022%20Scoping%20Plan%20Update%20focuses%20on%20outcomes,energy%20security%2C%20environmental%20justice%2C%20and%20public%20health%20priorities>. Accessed June 1, 2023.

of climate change depend heavily upon future human activity. Therefore, climate models are based on different emission scenarios that account for historical trends in emissions and on observations of the climate record that assess the human influence of the trend and projections for extreme weather events. Climate change scenarios are affected by varying degrees of uncertainty—for example, on the magnitude of the trends for:

- Warmer and fewer cold days and nights over most land areas.
- Warmer and more frequent hot days and nights over most land areas.
- An increase in frequency of warm spells/heat waves over most land areas.
- An increase in frequency of heavy precipitation events (or proportion of total rainfall from heavy falls) over most areas.
- Larger areas affected by drought.
- Intense tropical cyclone activity increases.
- Increased incidence of extreme high sea level (excluding tsunamis).

3.5.2 Regulatory Setting

3.5.2.1 Federal Regulations

The Supreme Court of the United States (SCOTUS) ruled in *Massachusetts v. Environmental Protection Agency*, 127 South Court 1438 (2007), that CO₂ and other GHGs are pollutants under the federal Clean Air Act (CAA), which the U.S. Environmental Protection Agency (EPA) must regulate if it determines they pose an endangerment to public health or welfare. SCOTUS did not mandate that the EPA enact regulations to reduce GHG emissions. Instead, SCOTUS found that the EPA could avoid taking action if it found that GHGs do not contribute to climate change or if it offered a “reasonable explanation” for not determining that GHGs contribute to climate change.

On April 17, 2009, the EPA issued a proposed finding that GHGs contribute to air pollution that may endanger public health or welfare. On April 24, 2009, the proposed rule was published in the Federal Register under Docket ID No. EPA-HQ-OAR-2009~0171. The EPA stated that high atmospheric levels of GHGs “are the unambiguous result of human emissions and are very likely the cause of the observed increase in average temperatures and other climatic changes.” The EPA further found that “atmospheric concentrations of greenhouse gases endanger public health and welfare within the meaning of Section 202 of the Clean Air Act.” The findings were signed by the EPA Administrator on December 7, 2009. The final findings were published in the Federal Register on December 15, 2009. The final rule was effective on January 14, 2010. While these findings alone do not impose any requirements on industry or other entities, this action is a prerequisite to regulatory actions by the EPA, including, but not limited to, GHG emissions standards for light-duty vehicles. In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (e.g., large stationary sources) to report GHG emissions data. Facilities that emit 25,000 metric tons CO₂e (MT CO₂e) per year are required to submit an annual report.

On July 20, 2011, the EPA published its final rule deferring GHG permitting requirements for CO₂ emissions from biomass-fired and other biogenic sources until July 21, 2014. Environmental groups challenged the deferral. In September 2011, EPA released an “Accounting Framework for Biogenic CO₂

Emissions from Stationary Sources,”¹⁴¹ which analyses accounting methodologies and suggests implementation for biogenic CO₂ emitted from stationary sources.

On April 4, 2012, the EPA published a proposed rule to establish, for the first time, a new source performance standard for GHG emissions. Under the proposed rule, new fossil fuel–fired generating units larger than 25 megawatts are required to limit emissions to 1,000 pounds of CO₂ per megawatt-hour on an average annual basis, subject to certain exceptions.

Pursuant to its authority under the CAA, the EPA has been developing regulations for new, large, stationary sources of emissions, such as power plants and refineries. Under former President Obama’s 2013 Climate Action Plan, the EPA was directed to develop regulations for existing stationary sources as well. On June 19, 2019, the EPA issued the final Affordable Clean Energy rule which became effective on August 19, 2019. The Affordable Clean Energy rule was crafted under the direction of President Trump’s Energy Independence Executive Order. It officially rescinds the Clean Power Plan rule issued during the Obama Administration and sets emissions guidelines for states in developing plans to limit CO₂ emissions from coal-fired power plants.

The federal government issued new Corporate Average Fuel Economy (CAFE) standards in 2012 for model years 2017 to 2025, which required a fleet average of 54.5 miles per gallon in 2025. However, on March 30, 2020, the EPA finalized the updated CAFE and GHG emissions standards for passenger cars and light trucks and established new standards, covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021 to 2026. However, a consortium of automakers and the State of California have agreed on a voluntary framework to reduce emissions that can serve as an alternative path forward for clean vehicle standards nationwide. Automakers who agreed to the framework are Ford, Honda, BMW of North America, and Volkswagen Group of America. The framework supports continued annual reductions of vehicle GHG emissions through the 2026 model year, encourages innovation to accelerate the transition to electric vehicles, and provides industry the certainty needed to make investments and create jobs. This commitment means that the auto companies party to the voluntary agreement will only sell cars in the United States that meet these standards.

On April 17, 2022, the EPA issued emission rules for oil production and natural gas production and processing operations, which are required by the CAA under Title 40 of the Code of Federal Regulations Parts 60 and 63. The final rules include the first federal air standards for natural gas wells that are hydraulically fractured, along with requirements for several other sources of pollution in the oil and gas industry that currently are not regulated at the federal level.

To regulate GHGs from passenger vehicles, the EPA issued an endangerment finding. The finding identifies emissions of six key GHGs—CO₂, CH₄, N₂O, HCFCs, PFCs, and SF₆— that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the proposed project’s GHG emissions inventory because they constitute the majority of GHG emissions and, per BAAQMD guidance, they are the GHG emissions that should be evaluated as part of a project’s GHG emissions inventory.

¹⁴¹ EPA. 2014. Accounting Framework for Biogenic CO₂ Emissions from Stationary Sources. Available at: <https://www.epa.gov/sites/default/files/2016-08/documents/framework-for-assessing-biogenic-co2-emissions.pdf>. Accessed June 1, 2023

3.5.2.2 State Regulations

3.5.2.2.1 EXECUTIVE ORDER S-3-05, EXECUTIVE ORDER B-30-15, AND EXECUTIVE ORDER B-55-18

In 2005, the governor issued Executive Order (EO) S-3-05, establishing statewide GHG emissions reduction targets, as well as a process to ensure the targets are met. The order directed the Secretary of the California Environmental Protection Agency to report every 2 years on the State's progress toward meeting the governor's GHG emission reduction targets. The statewide GHG targets established by EO S-3-05 are as follows:

- By 2010, reduce GHG emissions to 2000 emission levels,
- By 2020, reduce GHG emissions to 1990 emission levels, and
- By 2050, reduce GHG emissions to 80% below 1990 levels.

EO B-30-15, issued by Governor Brown in April 2015, established an additional statewide policy goal to reduce GHG emissions 40% below their 1990 levels by 2030. Reducing GHG emissions by 40% below 1990 levels in 2030 and by 80% below 1990 levels by 2050 (consistent with EO S-3-05) aligns with scientifically established levels needed in the United States to limit global warming below 2 degrees Celsius.

The State Legislature adopted equivalent 2020 and 2030 statewide targets in the California Global Warming Solutions Act of 2006 (also known as AB 32) and Senate Bill (SB) 32, respectively, both of which are discussed below. However, the legislature has not yet adopted a target for the 2050 horizon year. As a result of EO S-3-05, the California Action Team (CAT), led by the Secretary of the California Environmental Protection Agency, was formed. The CAT is made up of representatives from a number of state agencies and was formed to implement global warming emission reduction programs and to report on the progress made toward meeting statewide targets established under the EO. The CAT reported several recommendations and strategies for reducing GHG emissions and reaching the targets established in the EO.

The CAT stated that "smart" land use is an umbrella term for strategies that integrate transportation and land-use decisions. Such strategies generally encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. These strategies develop more efficient land-use patterns within each jurisdiction or region to match population increases, workforce, and socioeconomic needs for the full spectrum of the population. "Intelligent transportation systems" is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and the movement of people, goods, and services.

EO B-55-18, issued by Governor Brown in September 2018, establishes a new statewide goal to achieve carbon neutrality as soon as possible, but no later than 2045, and achieve and maintain net negative emissions thereafter. Based on this EO, CARB would work with relevant state agencies to develop a framework for implementation and accounting that tracks progress toward this goal, as well as ensuring future scoping plans identify and recommend measures to achieve the carbon neutrality goal.

3.5.2.2.2 ASSEMBLY BILL 32, CALIFORNIA GLOBAL WARMING SOLUTION ACT

The California Global Warming Solutions Act of 2006 (also known as AB 32) commits the State to achieving the following:

- By 2010, reduce GHG emissions to 2000 GHG emission levels, and
- By 2020, reduce GHG emissions to 1990 levels.

To achieve these goals, which are consistent with the California CAT GHG targets for 2010 and 2020, AB 32 mandates that the CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce statewide GHG emissions from stationary sources consistent with the CAT strategies, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. In order to achieve the reductions, AB 32 requires CARB to adopt rules and regulations in an open, public process that achieves the maximum technologically feasible and cost-effective GHG reductions.

SB 32, signed September 8, 2016, updates AB 32 to include an emissions reduction goal for the year 2030. Specifically, SB 32 requires CARB to ensure that statewide GHG emissions are reduced to 40% below the 1990 level by 2030. The new plan, outlined in SB 32, involves increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries.

3.5.2.2.3 CLIMATE CHANGE SCOPING PLAN

In 2008, CARB approved a Climate Change Scoping Plan, as required by AB 32. Subsequently, CARB approved updates of the Climate Change Scoping Plan in 2014 (First Update) and 2017 (2017 Update), with the 2017 Update considering SB 32 (adopted in 2016) in addition to AB 32.¹⁴² The First Update highlights California’s progress toward meeting the “near-term” 2020 GHG emission reduction goals (to the level of 427 million metric tons [MMT] CO₂e) defined in the original Scoping Plan. It also evaluates how to align the State’s longer-term GHG reduction strategies with other State policy priorities, such as for policies for water, waste, natural resources, clean energy, transportation, and land use. In November 2022, the final 2022 Scoping Plan Update and Appendices was released. This 2022 Scoping Plan Update assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045.¹⁴³ The 2022 Scoping Plan Update, focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State’s long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

3.5.2.2.4 ASSEMBLY BILL 197

AB 197, signed September 8, 2016, is a bill linked to SB 32 that prioritizes efforts to reduce GHG emissions in low-income and minority communities. AB 197 requires the CARB to make available, and update at least annually on its website, the emissions of GHGs, criteria pollutants, and TACs for each facility that reports to CARB and air districts. In addition, AB 197 adds two members of the legislature to the CARB board as ex officio, non-voting members, and also creates the Joint Legislative Committee on

¹⁴² CARB. 2017. 2017 Scoping Plan Documents. Available at: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2017-scoping-plan-documents>. Accessed June 1, 2023.

¹⁴³ CARB, 2022. 2022 Scoping Plan. Available at: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>, Accessed June 1, 2023.

Climate Change Policies to ascertain facts and make recommendations to the legislature concerning the State's programs, policies, and investments related to climate change.

3.5.2.2.5 CAP-AND-TRADE PROGRAM

The 2008 Climate Change Scoping Plan identified a cap-and-trade program as one of the strategies for California to reduce GHG emissions. The cap-and-trade program is a key element in California's climate plan. It sets a statewide limit on sources responsible for 85% of California's GHG emissions and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The cap-and-trade rules came into effect on January 1, 2013, and apply to large electric power plants and large industrial plants. In 2015, fuel distributors, including distributors of heating and transportation fuels, also became subject to the cap-and-trade rules. At that stage, the program will encompass around 360 businesses throughout California and nearly 85% of the state's total GHG emissions. Covered entities subject to the cap-and-trade program are sources that emit more than 25,000 MT CO₂e per year. Triggering of the 25,000 MT CO₂e per year "inclusion threshold" is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (Mandatory Reporting Rule).

Under the cap-and-trade regulation, companies must hold enough emission allowances to cover their emissions and are free to buy and sell allowances on the open market. California held its first auction of GHG allowances on November 14, 2012. California's GHG cap-and-trade system is projected to reduce GHG emissions to 1990 levels by the year 2020 and would achieve an approximate 80% reduction from 1990 levels by 2050.

3.5.2.2.6 ASSEMBLY BILL 1493 (PAVLEY I)

AB 1493, passed in 2002, requires the development and adoption of regulations to achieve the maximum feasible reduction in GHGs emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the state. CARB originally approved regulations to reduce GHG from passenger vehicles in September 2004, which took effect in 2009. On September 24, 2009, CARB adopted amendments to these regulations that reduce GHG emissions and new passenger vehicles from 2009 through 2016. Although setting emission standards on automobiles is solely the responsibility of the EPA, the federal CAA allows California to set state-specific emission standards on automobiles, and the State first obtained a waiver from the EPA. The EPA granted California that waiver until July 1, 2009. The comparison between the AB 1493 standards and the federal CAFE standards was completed by CARB, and the analysis determined the California emission standards were 16% more stringent through the 2016 model year and 18% more stringent for the 2020 model year. CARB is also committed to further strengthening these standards beginning with 2020 model year vehicles, to obtain a 45% GHG reduction in comparison to 2009 model years.

In March 2020, the EPA issued the SAFE Vehicles Rule which would roll back fuel economy standards and revoke California's waiver. Under this rule, EPA would amend certain average fuel economy and GHG standards for passenger cars covering model years 2021 through 2026. In September 2019, the EPA withdrew the waiver that had been previously provided in California for the State's GHG and Zero Emission Vehicle (ZEV) programs under Section 209 of the CAA. The withdrawal of the waiver became effective on November 26, 2019. In response, several states, including California, have a lawsuit challenging the withdrawal of the EPA waiver. These actions continue to be challenged in court. As noted above, on January 20, 2021, President Biden issued an EO directing all executive departments and agencies to take action, as appropriate, to address federal regulations and other actions taken during the last 4 years that conflict with the administration's climate and environmental justice goals, which include SAFE.

3.5.2.2.7 EXECUTIVE ORDER S-01-07 (CALIFORNIA LOW CARBON FUEL STANDARD)

EO S-01-07, the Low Carbon Fuel Standard (LCFS) (issued January 18, 2007), requires at least a 10% reduction in the carbon intensity of California transportation fuels by 2020. Regulatory proceedings and implementation of the LCFS was directed to CARB. CARB released a draft version of the LCFS in October 2008. The final regulation was approved by the Office of Administrative Law and filed with the Secretary of State on January 12, 2010; the LCFS became effective on the same day.

The 2017 update has identified LCFS as a regulatory measure to reduce GHG emission to meet the 2030 emissions target. In calculating statewide emissions and targets, the 2017 update assumed the LCFS would be extended to an 18% reduction in carbon intensity beyond 2020. On September 27, 2018, CARB approved a rulemaking package that amended the LCFS to relax the 2020 carbon intensity reduction from 10% to 7.5% and to require a carbon intensity reduction of 20% by 2030.

3.5.2.2.8 ADVANCED CLEAN CAR REGULATIONS

In 2012, CARB approved the Advanced Clean Cars program, a new emissions control program for model years 2015 through 2025. The components of the advanced clean car standards include the low-emission vehicle regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the ZEV regulation, which requires manufacturers to produce an increasing number of pure ZEVs, with provisions to also produce plug-in hybrid electric vehicles in the 2018 through 2025 model years period. In March 2017, CARB voted unanimously to continue with the vehicle GHG emission standards and the ZEV programs for cars and light trucks sold in California through 2025.

3.5.2.2.9 SENATE BILL 375

This bill requires CARB to set regional emissions reduction targets for passenger vehicles. The metropolitan planning organization for each region must then develop a “Sustainable Communities Strategy” that integrates transportation, land use, and housing policies to plan how it will achieve the emissions target for its region. If the Sustainable Communities Strategy is unable to achieve the regional GHG emissions reductions targets, then the metropolitan planning organization is required to prepare an alternative planning strategy that shows how the GHG emissions reduction target can be achieved through alternative development patterns, infrastructure, and/or transportation measures.

As required under SB 375, CARB is required to update regional GHG emission targets every 8 years; the last update was formally adopted in March 2018. As part of the 2018 update, CARB has adopted a passenger vehicle-related GHG reduction target of 19% by 2035 for the Southern California Association of Governments (SCAG) region, which is more stringent than the previous reduction target of 13% for 2035.

3.5.2.2.10 SENATE BILL 97

This bill was enacted in 2007. SB 97 required the Governor’s Office of Planning and Research to develop, and the Natural Resources Agency to adopt, amendments to the California Environmental Quality Act (CEQA) Guidelines addressing the analysis and mitigation of GHG emissions. Those CEQA Guidelines amendments clarified several points, including the following:

- Lead agencies must analyze the GHG emissions of proposed projects and must reach a conclusion regarding the significance of those emissions.
- When a project’s GHG emissions may be significant, lead agencies must consider a range of potential mitigation measures to reduce those emissions.

- Lead agencies must analyze potentially significant impacts associated with placing projects in hazardous locations, including locations potentially affected by climate change.
- Lead agencies may significantly streamline the analysis of GHGs on a project level by using a programmatic GHG emissions reduction plan meeting certain criteria.
- CEQA mandates analysis of a proposed project's potential energy use (including transportation-related energy), sources of energy supply, and ways to reduce energy demand, including the use of efficient transportation alternatives.

As part of the administrative rulemaking process, the California Natural Resources Agency developed a Final Statement of Reasons explaining the legal and factual bases, intent, and purpose of the CEQA Guidelines amendments. The amendments to the CEQA Guidelines implementing SB 97 became effective on March 18, 2010. SB 97 applies to any environmental impact report (EIR), negative declaration, mitigated negative declaration, or other document required by CEQA, which has not been finalized.

3.5.2.2.11 BUILDING ENERGY EFFICIENCY STANDARDS

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for the consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Building Energy Efficiency Standards were adopted on May 9, 2018, and went into effect on January 1, 2020. The 2019 standards move toward cutting energy use in new homes by more than 50% and require the installation of solar photovoltaic systems for single-family homes and multi-family buildings of three stories or less. The 2019 standards focus on four key areas: 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to the exterior and vice versa); 3) residential and nonresidential ventilation requirements; and 4) nonresidential lighting requirements. Under the 2019 standards, nonresidential buildings are 30% more energy efficient than under the 2016 standards, and single-family homes are 7% more energy efficient. When accounting for the electricity generated by the solar photovoltaic system, single-family homes would use 53% less energy compared to homes built to the 2016 standards. Furthermore, on August 11, 2021, the California Energy Commission adopted the 2022 Building Energy Efficiency Standards, which were subsequently approved by the California Building Standards Commission in December 2021. The 2022 standards became effective and replaced the existing 2019 standards on January 1, 2023. The 2022 standards require mixed-fuel single-family homes to be electric-ready to accommodate replacement of gas appliances with electric appliances. In addition, the new standards also include prescriptive photovoltaic system and battery requirements for high-rise, multi-family buildings (i.e., more than three stories) and noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers.

3.5.2.2.12 CALGREEN

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The mandatory provisions of CALGreen became effective January 1, 2011, and were last updated in 2019. The 2022 CALGreen standards became effective on January 1, 2023.

3.5.2.3 Local Regulations

3.5.2.3.1 PLAN BAY AREA

Plan Bay Area is the Bay Area’s Regional Transportation Plan/Sustainable Community Strategy. The 2050 blueprint to Plan Bay Area was adopted jointly by the Association of Bay Area Governments and the Metropolitan Transportation Commission in October 2021. The Plan Bay Area 2050 serves as a 30-year plan with 35 new strategies to provide a more equitable and resilient future for residents in the Bay Area. This regional plan aims for more affordable and accessible transportation, which will significantly decrease GHG emissions to meet the state mandate of a 19% reduction in per capita emissions by 2035.

3.5.2.3.2 BAY AREA CLEAN AIR PLAN

BAAQMD adopted the 2017 Clean Air Plan, Spare the Air, Cool the Climate on April 19, 2017 (2017 Clean Air Plan). The 2017 Clean Air Plan also lays the groundwork for reducing GHG emissions in the Bay Area to meet the state’s 2030 GHG reduction target and 2050 GHG reduction goal. It also includes a vision for the Bay Area in a post-carbon year 2050 that encompasses the following:

- Construct buildings that are energy efficient and powered by renewable energy.
- Walk, bicycle, and use public transit for most trips and use electric-powered autonomous public transit fleets.
- Incubate and produce clean energy technologies.
- Live a low-carbon lifestyle by purchasing low-carbon foods and goods in addition to recycling and putting organic waste to productive use.¹⁴⁴

A comprehensive multipollutant control strategy has been developed to be implemented in the next 3 to 5 years to address public health and climate change and to set a pathway to achieve the 2050 vision. The control strategy includes 85 control measures to reduce emissions of ozone, particulate matter, toxic air contaminants, and GHG from a full range of emission sources. These control measures cover the following sectors: 1) stationary (industrial) sources, 2) transportation, 3) energy, 4) agriculture, 5) natural and working lands, 6) waste management, 7) water, and 8) super-GHG pollutants. Overall, the proposed control strategy is based on the following key priorities:

- Reduce emissions of criteria air pollutants and toxic air contaminants from all key sources.
- Reduce emissions of “super-GHGs” such as methane, black carbon, and fluorinated gases.
- Decrease demand for fossil fuels (gasoline, diesel, and natural gas).
- Increase efficiency of the energy and transportation systems.
- Reduce demand for vehicle travel, and high-carbon goods and services.
- Decarbonize the energy system.
- Make the electricity supply carbon-free.
- Electrify the transportation and building sectors.

¹⁴⁴ Bay Area Air Quality Management District. 2017. Final 2017 *Clean Air Plan*, Spare the Air, Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area. https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-_proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed June 1, 2023.

3.5.2.3.3 BAY AREA COMMUTER BENEFITS PROGRAM

Under BAAQMD Regulation 14, Model Source Emissions Reduction Measures, Rule 1, Bay Area Commuter Benefits Program, employers with 50 or more full-time employees within the BAAQMD are required to register and offer commuter benefits to employees. In partnership with the BAAQMD and the Metropolitan Transportation Commission, the rule's purpose is to improve air quality, reduce GHG emissions, and decrease the Bay Area's traffic congestion by encouraging employees to use alternative commute modes, such as transit, vanpool, carpool, bicycling, and walking. The benefits program allows employees to choose from one of four commuter benefit options including a pre-tax benefit, employer-provided subsidy, employer-provided transit, and alternative commute benefit.

3.5.2.3.4 COUNTY OF SAN MATEO 2020 CLIMATE ACTION PLAN

The San Mateo County 2022 Community Climate Action Plan (CCAP)¹⁴⁵ outlines priority actions to achieve a 45% reduction of GHG emissions over 1990 levels by 2030 and carbon neutrality by 2040. The CCAP streamlines the development process by meeting the BAAQMD's requirements for a Qualified GHG Reduction Strategy. The CCAP also supports the goals and policies of AB 32, California Global Warming Solutions Act of 2006. The County's strategies and actions are structured around four focus areas: building energy, transportation, waste, and working lands.

Buildings are the second largest contributor to GHG emissions in unincorporated areas of the County, accounting for 32% of all emissions. These emissions stem primarily from the use of natural gas in residential and commercial buildings.

Summary of Building Energy Policy strategies:

- Policy B-1: Transition to all-electric new constructions.
- Policy B-2: Convert existing buildings to all-electric.
- Policy B-3: Use microgrids to generate local renewable energy and improve resiliency.
- Policy B-4: Pursue integrated opportunities to address climate adaptation and mitigation.

Emissions in the transportation sector come from people driving vehicles (vehicle miles traveled [VMT]) on roads within the county. In 2017, this represented 40% of the County's emissions inventory and remains the largest contributor when compared to the other sectors. Reducing this emissions source will require reducing VMT as well as increasing the community adoption of electric vehicles (EVs). While making this change will require multijurisdictional action beyond the County's jurisdiction, and will rely upon individual behavior change, the County can still play a critical role. San Mateo County can facilitate EV adoption; build the necessary charging infrastructure to enable widespread EV use; increase access to jobs, goods, and services in neighborhoods; help its communities shift to active transportation (human-powered forms of transportation including walking, rolling, and biking); and work in partnership to enhance and improve public transit access and ridership.

Summary of Transportation Policy strategies:

- Policy T-1: Increase electric vehicle adoption.
- Policy T-2: Encourage urban density and the revision of parking standards, and support bicycle and pedestrian-friendly planning.

¹⁴⁵ San Mateo County. 2022. 2022 Community Climate Action Plan. Available at: <https://www.smcgov.org/planning/community-climate-action-plan-ccap>. Accessed June 1, 2023.

- Policy T-3: Implement programs for shared transit that reduce VMT.

Waste produced in unincorporated communities is sent to Ox Mountain Landfill where the organic materials decompose and produce methane, which is a GHG. Waste represents a smaller share of overall county emissions at 26%. There are measures designed to prevent materials from entering the landfill through source reduction and waste diversion actions such as reducing waste generated, reusing materials, composting organics, and recycling.

Summary of Waste and Consumption Policy strategies:

- Policy W-1: Reduce construction materials and waste.
- Policy W-2: Reduce organics in the waste stream.
- Policy W-3: Reduce inorganic waste sent to landfills.

Rangeland and cropland, including publicly and privately managed lands, comprise a large portion of the land base in California and in San Mateo County. These working lands have significant potential for sequestering carbon from the atmosphere, thus serving as a climate mitigation strategy. Active management of working lands can enhance the rate of carbon sequestration in soils and vegetation; therefore, carbon farming (i.e., the suite of practices that brings about more sequestration) has a critical role to play in helping San Mateo County develop resilience to climate change while simultaneously reducing atmospheric GHGs driving climate change.

Summary of Working Lands Policy strategies:

- Strategy L-1: Identify new financing to scale carbon farming.
- Strategy L-2: Support technical assistance, education, and data collection efforts to scale climate beneficial agriculture.
- Strategy L-3: Secure access to key implementation infrastructure to advance climate beneficial agriculture.
- Strategy L-4: Address permitting barriers to implementing climate beneficial agricultural practices.
- Strategy L-5: Ensure agricultural lands are preserved for agricultural production.
- Strategy L-6: Support carbon sequestration and ecological restoration on natural lands.

3.5.2.3.5 COUNTY OF SAN MATEO GENERAL PLAN

The General Plan¹⁴⁶ is the County's vision for future development. It identifies goals, policies, and objectives to govern the physical development of the County. State law requires each city and county to adopt a General Plan with a minimum of seven elements: Land Use, Circulation, Housing, Conservation, Open-Space, Noise, and Safety. The San Mateo General Plan contains 17 chapters addressing each of the required elements and additional elements like the transportation and climate element. Many of the General Plan policies affect air quality and GHG emissions for the County. For example, this General Plan Climate Change Element demonstrates San Mateo County's commitment to achieve energy efficiency and mitigate its impact on climate change by reducing GHG emissions consistent with state legislation.

¹⁴⁶ San Mateo County. 2022. San Mateo County General Plan. Available at: <https://www.smcgov.org/planning/general-plan>. Accessed June 1, 2023.

3.5.2.4 Existing Conditions and Inventories

Per the EPA’s *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2020*,¹⁴⁷ total U.S. GHG emissions have decreased by 6.6% from 1990 to 2020. The largest source of GHG emissions from human activities in the United States is from burning fossil fuels for electricity, heat, and transportation. The latest national GHG emissions are for calendar year 2020, in which the total gross U.S. GHG emissions were reported at 5,981.4 MMT CO₂e. Emissions decreased from 2019 to 2020 by 543.4 MMT CO₂e and net emissions (including sinks) were 5,222.4 MMT CO₂e.

According to California’s 2000–2019 GHG emissions inventory, California emitted 409.3 MMT CO₂e in 2019. The sources of GHG emissions in California include transportation, industrial uses, electric power production from both in-state and out-of-state sources, commercial and residential uses, agriculture, high global warming potential substances, recycling, and waste. The California GHG emission source categories (as defined in CARB’s 2008 Scoping Plan) and their relative contributions in 2019 are presented in Table 3.5-2. Total GHG emissions in 2019 were approximately 22.9 MMT CO₂e less than 2016 emissions. Based on data presented, the 2016 statewide GHG inventory fell below 1990 levels, consistent with AB 32. The declining trend in GHG emissions, coupled with programs that will continue to provide additional GHG reductions going forward, demonstrates that California will continue to reduce emissions below the 2020 target of 431 MT CO₂e.

Table 3.5-2. California GHG Inventory

Parameter	Unit	Year				
		2015	2016	2017	2018	2019
Transportation	MMT CO ₂ e	166.2	169.8	171.2	169.6	166.1
	Percentage	38.5%	40.4%	41.2%	40.7%	40.6%
Electric power	MMT CO ₂ e	84.8	68.6	62.1	63.1	58.8
	Percentage	19.6%	16.3%	14.9%	15.2%	14.4%
Industrial	MMT CO ₂ e	90.3	89	88.8	89.2	88.2
	Percentage	20.9%	21.2%	21.4%	21.4%	21.5%
Commercial and residential	MMT CO ₂ e	38.8	40.6	41.3	41.4	43.8
	Percentage	9.0%	9.7%	9.9%	9.9%	10.7%
Agriculture	MMT CO ₂ e	33.5	33.3	32.5	32.7	31.8
	Percentage	7.8%	7.9%	7.8%	7.9%	7.8%
High GWP	MMT CO ₂ e	18.6	19.2	20	20.4	20.6
	Percentage	4.3%	4.6%	4.8%	4.9%	5.0%
Total	MMT CO ₂ e	432.2	420.5	415.9	416.4	409.3

Source: California GHG Inventory for 2000–2019¹⁴⁸

¹⁴⁷ EPA. 2022. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2020*. EPA 430-R-22-003. Available at: <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2020>. Accessed June 1, 2023.

¹⁴⁸ CARB. 2021. *Current California GHG Emission Inventory Data. 2000-2019 GHG Inventory*. Available at: <https://ww2.arb.ca.gov/ghg-inventory-data>. Accessed May 2, 2023.

3.5.3 Thresholds of Significance

Pursuant to the State CEQA Guidelines, the project would be considered to have a significant effect on GHG emissions if the effects exceed the significance criteria described below:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?
3. Result in the loss of forestland or conversion of forestland to non-forest use, such that it would release significant amounts of GHG emissions, or significantly reduce GHG sequestering?
4. Expose new or existing structures and/or infrastructure (e.g., leach fields) to accelerated coastal cliff/bluff erosion due to rising sea levels?
5. Expose people or structures to a significant risk of loss, injury, or death involving sea level rise?
6. Place structures within an anticipated 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?
7. Place within an anticipated 100-year flood hazard area structures that would impede or redirect flood flows?

Each of these thresholds is discussed under Section 3.5.5, Impacts and Mitigation Measures, below. Similar criteria to 6 and 7 are discussed in Section 3.7, Hydrology and Water Quality.

State CEQA Guidelines Section 15064.4 recommends that lead agencies quantify GHG emissions projects and consider several other factors that may be used to determine the significance of project-related GHG emissions, including the extent to which the project may increase or reduce GHG emissions, whether the project exceeds an applicable significant threshold, and the extent to which the project complies with the regulations or requirements adopted to implement a reduction or mitigation of GHG.

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 at thresholds developed by other public agencies, or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), as long as any threshold chosen is supported by substantial evidence (see State CEQA Guidelines Section 15064.7(c)). The State CEQA Guidelines also clarify that the events of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see State CEQA Guidelines Section 15130(f)). It is noted that the State CEQA Guidelines were amended in response to SB 97. In particular, the State CEQA Guidelines were amended to specify that compliance with the GHG emissions reduction plan renders a cumulative impact that is less than significant.

Per State CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found to be not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area of the 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 "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 greenhouse gas emissions" (14 CCR Section 15064(h)(3)). Put another way, State CEQA Guidelines Section 15064(h)(3)

allows a lead agency to 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.

Although GHG emissions can be quantified, CARB, BAAQMD, and the County have not adopted quantitative project-level significance thresholds for GHG emissions that would be applicable to the project. Per State CEQA Guidelines Section 15064.4(b), “in determining the significance of a project’s greenhouse gas emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project’s emissions to the effects of climate change. A project’s incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions.” When determining the significance of GHG impacts, lead agencies should consider the project’s impact as compared to the existing environmental setting, whether the project exceeds a threshold of significance, and compliance with relevant GHG-related plans (see, for example, State CEQA Guidelines Section 15064.4(b)). Regarding the latter criterion, lead agencies should consider “the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions” (see, for example, State CEQA Guidelines Section 15183.5(b)). Per State CEQA Guidelines Section 15064.4(b)(3), such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project’s incremental contribution of GHG emissions.

In April 2022, BAAQMD adopted the Justification Report: *CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans* (Justification Report).¹⁴⁹ Land-use development projects include residential, commercial, industrial, and public land-use facilities. Direct sources of emissions may include on-site combustion of energy, such as natural gas used for heating and cooking, emissions from industrial processes (not applicable for most land-use development projects), and fuel combustion from mobile sources. Indirect emissions are emissions produced off-site from energy production, water conveyance due to a project’s energy use and water consumption, and non-biogenic emissions from waste disposal. Biogenic CO₂ emissions are not included in the quantification of a project’s GHG emissions, because biogenic CO₂ is derived from living biomass (e.g., organic matter present in wood, paper, vegetable oils, animal fat, food, animal, and yard waste) as opposed to fossil fuels. BAAQMD identified in their Justification Report that projects that implement the following best management practices would contribute a proportionate share of what will be required to achieve the state’s long-term climate goals, as described below:

A. Projects must include, at a minimum, the following project design elements:

1. Buildings
 - a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
 - b. The project will not result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
2. Transportation
 - a. Achieve compliance with electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.
 - b. Achieve a reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor’s

¹⁴⁹ BAAQMD. 2022. Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans. Available at: <https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en>. Accessed May 2, 2023.

Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA.

B. OR, projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

BAAQMD does not have thresholds of significance for construction-related GHG emissions, which are one-time, short-term emissions and therefore would not significantly contribute to the long-term cumulative GHG emissions impacts of the proposed project.

3.5.4 Impact Assessment and Methodology

This analysis quantifies the project's total annual GHG emissions from construction, taking into account any GHG emission reduction measures that would be incorporated into the project's design. However, given the lack of a formally adopted numerical significance threshold or a formally adopted local plan for reducing GHG emission applicable to this project, this analysis also evaluates the significance of the project's GHG emission by assessing the project's consistency with regulatory schemes and policies.

3.5.5 Impacts and Mitigation Measures

Impact GHG-1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Less than Significant)

The proposed project is located in the San Francisco Bay Area Air Basin, which is regulated by the BAAQMD. Projects generate GHG emissions during construction and operation (e.g., mobile emissions, emissions from generation of electricity for operations), and projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b). On April 20, 2022, the BAAQMD adopted changes to its thresholds for evaluating the significance of climate impacts from land-use projects and plans under CEQA. In place of numerical thresholds, the focus will be on the design of a project as well as building operations and transportation. At a minimum, building projects cannot include natural gas appliances or natural gas plumbing, and cannot result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and State CEQA Guidelines Section 15126.2(b). The project will not use natural gas and will not result in any wasteful, inefficient, or unnecessary energy usage per **Initial Study Section 2.6, Energy**.

As discussed in **Chapter 2, Project Description**, the project sponsor has committed to the implementation of the following required and additional Transportation Demand Management (TDM) measures identified in the C/CAG TDM Checklist for a Residential (Multi-Family) Land Use: Small Project and site design and pedestrian network improvements:

- M2 – Orientation, Education, Promotional Programs and/or Materials (*Required*)
- M3 – TDM Coordinator/Contact Person (*Required*)
- M6 – Transit or Ridesharing Passes/Subsidies (*Required*)
- M8 – Secure Bicycle Storage (*Required*)
- M9 – Design Streets to Encourage Bike/Ped Access (*Required*)
- M11 – Family-Supportive Amenities (*Additional*)
- M22 – Active Transportation Subsidies (*Additional*)

- M23 – Gap Closure (*Additional*)
- M24 – Bike Repair Station (*Additional*)

These TDM measures are intended to provide options to future residents and promote shifts from automobiles to transit and non-auto modes such as walking and bicycling. The project sponsor has also committed to the implementation of site design improvements to further enhance the on-site bicycle and pedestrian network and the connectivity of the site to the larger Moss Beach community, e.g., Sierra Street sidewalk improvements (see Chapter 2, Project Description). In addition to the proposed project characteristics (i.e., affordable housing and local preference agreement; C/CAG TDM measures incorporated as part of the project; and the additional pedestrian and bicycle network and transit stop improvements identified under **MM-TR-4b: Additional Transportation Demand Management Measures**, p. 3.10-42), the project sponsor may consider implementing C/CAG TDM Checklist Measure M4 for participation in Commute.org or Transportation Management Association Equivalent (see MM-TR-2 on p. 3.10.37). As discussed in **EIR Section 3.10, Transportation**, under **Impact TR-2**, the estimated VMT reduction associated with the TDM Measures, affordable housing, and the local preference agreement would not result in the VMT reductions needed to be at 15% below the County’s significance threshold of 11.56 daily home-based VMT per capita by resident, which is 15% below the daily county average VMT. Therefore, the proposed project’s VMT impact would remain significant and unavoidable with mitigation. However, the project will implement all feasible VMT reduction strategies and will comply with all other CCAP GHG reduction strategies (i.e., no natural gas in residential buildings, providing EV chargers, actions encouraging the communities shift to active transportation [human-powered forms of transportation including walking, rolling, and biking]). Specifically, the Project supports the following CCAP policies:

- B-1.1 Reach Code Implementation
- B-1.6 Energy Efficiency in New Construction
- B-1.7 Industry and Workforce Development
- B-2.1 Natural Gas Phase Out
- T-1.1 EV Charging Requirements
- T-2.2 Affordable Housing Near Transportation
- T-2.3 Traffic Calming and Complete Streets
- T-2.4 Transportation Demand Management Ordinance
- T-2.6 Transportation Improvements to Reduce VMT
- T-2.6 Active Transportation Plan Implementation
- T-2.7 Regional Coordination to Increase Multimodal Travel
- T-2.8 Bicycle Parking and Amenities
- W-2.1 Organics Diversion

Implementation of **MM-TR-2** and **MM-TR-4b** would ensure that the project would comply with the County’s local GHG reduction strategies, which meets the criteria under State CEQA Guidelines Section 15183.5(b). Therefore, operation-related GHG emissions would be less than significant.

Impact GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (Less than Significant)

The CCAP was approved and adopted as an element of the San Mateo County General Plan in 2022. The CCAP outlines actionable items that, if successfully implemented, would achieve a 45% reduction of GHG emissions over 1990 levels by 2030 and carbon neutrality by 2040.

Construction

Construction of the project would result in GHG emissions, which are primarily associated with the use of off-road construction equipment, on-road vendor trucks, and worker vehicles. The BAAQMD does not have current GHG significance thresholds, however construction emissions were calculated and amortized over a 30-year project lifetime. The California Emissions Estimator Model (CalEEMod) was used to calculate the annual GHG emissions based on the construction scenario described. Construction of the project is anticipated to last a total of approximately 18 months. On-site sources of GHG emissions include off-road equipment and off-site sources including vendor trucks and worker vehicles. Table 3.5-3 presents construction emissions for the project from on-site and off-site emission sources.

Table 3.5-3. Estimated Annual Construction GHG Emissions

Construction Years	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
2024	80.20	0.01	0.008	82.99
2025	913.13	0.08	0.077	938.69
2026	278.74	0.02	0.012	282.96
Total				1,304.64
Amortized construction emissions				43.5

Source: SWCA¹⁵⁰ provided in Appendix C.

As shown in Table 3.5-3, the estimated total GHG emissions during construction would be approximately 1,305 MTCO₂e over the construction period. Estimated project-generated construction emissions amortized over 30 years would be approximately 43.5 MTCO₂e per year. As with project-generated construction criteria air pollutant emissions, GHG emissions generated during construction of the project would only occur when construction is active, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions.

Operations

Operation of the project would generate GHG emissions through motor vehicle trips to and from the project site, landscape maintenance equipment operation, energy use, solid waste disposal, and generation of electricity associated with water supply, treatment, distribution, and wastewater treatment. CalEEMod was used to calculate the annual GHG emissions based on the operational assumptions for the project.

The estimated operational project-generated GHG emissions from area sources, energy usage, motor vehicles, off-road and stationary sources, solid waste generation, water usage, and wastewater generation are shown in Table 3.5-4.

¹⁵⁰ SWCA, 2023.

Table 3.5-4. Estimated Annual Operational GHG Emissions

Construction Year	CO ₂	CH ₄	N ₂ O	CO _{2e}
	Metric Tons per Year			
Mobile	911.53	0.03	0.03	922.44
Area	1.79	0.0002	0.00002	1.80
Energy	32.59	0.005	0.0006	32.91
Water	2.36	0.08	0.002	5.06
Waste	4.88	0.49	0	17.07
Refrigeration	0	0	0	0.08
Total	953.15	0.61	0.03	979.36
Amortized construction emissions				43.5
Total operational + amortized construction GHGs				1,022.87

Source: CalEEMod. SWCA, ¹⁵¹ provided in Appendix C.

Note: These emissions reflect operational year 2027.

As shown in Table 3.5-4, estimated, annual project-generated GHG emissions would be approximately 979 MT CO_{2e} per year as a result of project operations only. After summing the amortized project construction emissions, total GHGs generated by the project would be approximately 1,023 MT CO_{2e} per year, which represents a less-than-significant impact.

The project is an affordable housing project which includes GHG reduction strategies described in **Chapter 2, Project Description**. The following strategies related to GHG reduction include installation of rooftop solar panels, EV charging spaces, and water-efficient appliances. There are no natural gas appliances or connections proposed as part of the project. Therefore, the project would not conflict with the policies, regulations, or guidelines in the General Plan, CCAP, Bay Area Clean Air Plan, or any other applicable plans and/or regulations adopted for the purposes of reducing GHG emissions. Furthermore, GHG emissions from the project would not generate substantial GHG emissions during construction or operation. Therefore, the project’s operations would not conflict with approved or adopted GHG emissions plans and impacts would be considered less than significant.

Impact GHG-3: Result in the loss of forestland or conversion of forestland to non-forest use, such that it would release significant amounts of GHG emissions, or significantly reduce GHG sequestering? (Less than Significant)

The CalEEMod provides annual above- and below-ground biomass carbon accumulations for different land cover types and the air basin. The project is located in the San Francisco Air Basin and project activities would include the removal of approximately 295 trees, including 190 trees designated as Significant Trees in the County Code. The trees proposed to be removed during construction are categorized as conifer trees, which CalEEMod equates to 4.42 metric tons of carbon per acre per year that would be accumulated above- and below-ground.¹⁵² While the project proposes the removal of approximately 295 trees, the Significant Tree Ordinance requires replanting for significant trees removed during construction. For the proposed project, replacement of trees removed shall be in a manner and quantity prescribed by the Community Development Director. The project would plant approximately 195 replacement trees throughout the project site. The Applicant would work with the Community

¹⁵¹ SWCA, 2023.

¹⁵² California Air Pollution Control Officers Association. 2022. CalEEMod Appendix G Tab 42. Available at: <https://www.caleemod.com/user-guide>. Accessed June 2023.

Development Director to develop a tree replacement plan that includes approval of the quantity and location of proposed tree replacements and a maintenance plan for replacement trees. Tree replacement is consistent with Director's expectation and site conditions. As required by the Significant Tree Ordinance, the maintenance plan would be required for between 2 and 5 years, as determined by the Community Development Director. With the implementation of replanting and maintenance for removed significant trees, operation of the project would not conflict with the Significant Tree Ordinance and impacts related to GHG sequestration would be less than significant.¹⁵³ See Section 3.3, Biological Resources, for a discussion of tree removal activities.

Impact GHG-4: Expose new or existing structures and/or infrastructure (e.g., leach fields) to accelerated coastal cliff/bluff erosion due to rising sea levels? (Less than Significant)

The project site is in an area where the cliff stability level is designated as high.¹⁵⁴ The site is approximately 95 feet above sea level and located approximately 750 feet east of the coastline. The significant setback and cliff stability designation would result in a less-than-significant impact regarding cliff or bluff erosion due to rising sea levels.

Impact GHG-5: Expose people or structures to a significant risk of loss, injury or death involving sea level rise? (Less than Significant)

The project proposes development of a residential housing development and would introduce approximately 213 residents to the project site. While the project would introduce new residents to the area, as noted in Impact GHG-4, the project site is adequately set back, and the cliff stability is designated as high. The impact is less than significant.

Impact GHG-6: Place structures within an anticipated 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, or that would impede or redirect flood flows? (No Impact)

Most of the project site is located outside a Federal Emergency Management Agency flood hazard zone. A small portion of the site along the northern boundary lies within the flood hazard Zone X associated with Montara Creek. However, the water surface elevation in Montara Creek is approximately 100 feet below the portion of the site planned for development. Although flood frequency and intensity could increase under future climate change conditions, given the topography, it is unlikely that the proposed project would impede anticipated 100-year flood flows during the potentially more frequent and severe flood events. No proposed structures would be located within the current 100-year flood hazard area, and while there is uncertainty regarding how future flooding may impact Montara Creek, the clustering of the proposed housing would likely ensure that if flood waters rise to meet the project site, there would be an adequate setback resulting in further avoidance of anticipated flood hazards.

Impact GHG-7: Place within an anticipated 100-year flood hazard area structures that would impede or redirect flood flows? (No Impact)

As stated in Impact GHG-6, most of the project site is located outside a Federal Emergency Management Agency flood hazard zone. A small portion of the site along the northern boundary lies within the flood

¹⁵³ San Mateo County. 2016. *Significant Tree Ordinance of San Mateo County*. Available at: <https://www.smcgov.org/planning/tree-regulations>. Accessed May 5, 2023

¹⁵⁴ San Mateo County. 1986. *Attachment J. Natural Hazards*. Available at: <https://www.smcgov.org/media/127161/download?inline=>. Accessed June 2023.

hazard Zone X associated with Montara Creek. However, the water surface elevation in Montara Creek is approximately 100 feet below the portion of the site planned for development. Although the flood frequency would increase, given the topography, it is unlikely that the proposed project would impede 100-year flood flows during more frequent and severe flood events. As noted in Impact GHG-6, no proposed structures would be located within anticipated flood hazard areas.

3.5.6 Cumulative Impacts

Impact C-GHG-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to greenhouse gas emissions? (Less than Significant)

The analysis of a project's GHG emissions is inherently a cumulative impacts analysis because climate change is a global problem and the emissions from any single project alone would be negligible. Accordingly, the analysis above considers the potential for the project to contribute to the cumulative impact of a global climate change. Table 3.5-3 shows the estimated annual project-generated GHG emissions as a result of project construction and Table 3.5-4 shows the estimated, annual project-generated GHG emissions anticipated during operations. Given that the project would not conflict with any applicable reduction plans and policies and given that GHG emission impacts are cumulative in nature, the project's incremental contribution to cumulatively significant GHG emissions would be less than significant.

3.6 HAZARDS AND HAZARDOUS MATERIALS

This section describes existing hazards and hazardous material use in the project vicinity, identifies regulatory requirements, and assesses potential project-related impacts from hazards and hazardous materials. The section includes an analysis of the project's compatibility with environmental hazards and hazardous materials regulations. The County of San Mateo's (County's) General Plan, Local Coastal Program (LCP), Zoning Regulations, Half Moon Bay Airport Land Use Compatibility Plan (ALUCP), and contaminated site databases were reviewed for consistency with the project. Numerous evaluations of hazards and hazardous materials on the project site have been prepared, and were reviewed as part of the analysis, including the following reports:

- *Phase I Environmental Site Assessment Report, Carlos Street at Sierra Street, Moss Beach, San Mateo County, California 92038*, completed by AEI Consultants (AEI) on November 10, 2015 (Appendix H).¹⁵⁵
- *Limited Phase II Subsurface Investigation, Carlos Street at Sierra Street, Moss Beach, San Mateo County, California 92038*, completed by AEI on February 15, 2016 (Appendix I).¹⁵⁶
- *Draft Site Management Plan, Carlos Street at Sierra Street, Moss Beach, San Mateo County, California 92038*, completed by AEI on March 2, 2016 (Appendix J).¹⁵⁷
- *Additional Subsurface Investigation and Water Well Evaluation, Carlos Street at Sierra Street, Moss Beach, San Mateo County, California 92038*, completed by AEI on February 20, 2018 (Appendix K).¹⁵⁸
- *Water Well Sampling and Well Destruction, Project Number 350428, Cypress Point Development, Carlos Street at Sierra Street, Moss Beach, San Mateo County, California 92038*, completed by AEI on April 9, 2018 (Appendix L).¹⁵⁹
- *Environmental Site Investigation Responses to Comments*.¹⁶⁰ Completed by AEI Consultants, August 11, 2020 (Appendix M).¹⁶¹
- *Wildfire and Evacuation Route Assessment for the Cypress Point Affordable Housing Community Project, Moss Beach, San Mateo County, California*, completed by SWCA Environmental Consultants (SWCA) in July 2023 (Appendix N).¹⁶²

Project effects related to hazards and hazardous materials were compared against County and state regulations for consistency.

¹⁵⁵ AEI Consultants. 2015. *Phase I Environmental Site Assessment Report, Carlos Street at Sierra Street, Moss Beach, San Mateo County, California 92038*. San Jose, California: AEI Consultants.

¹⁵⁶ AEI Consultants. 2016a. *Limited Phase II Subsurface Investigation, Carlos Street at Sierra Street, Moss Beach, San Mateo County, California 92038*. San Jose, California: AEI Consultants.

¹⁵⁷ AEI Consultants. 2016b. *Draft Site Management Plan, Carlos Street at Sierra Street, Moss Beach, San Mateo County, California 92038*. San Jose, California: AEI Consultants.

¹⁵⁸ AEI Consultants. 2018a. *Additional Subsurface Investigation and Water Well Evaluation, Carlos Street at Sierra Street, Moss Beach, San Mateo County, California 92038*. San Jose, California: AEI Consultants.

¹⁵⁹ AEI Consultants. 2018b. *Water Well Sampling and Well Destruction, Project Number 350428, Cypress Point Development, Carlos Street at Sierra Street, Moss Beach, San Mateo County, California 92038*. San Jose, California: AEI Consultants.

¹⁶⁰ Response to comments refers to a letter received from SWAPE during the Local Coastal Plan (LCP) amendment process. The SWAPE letter provides comments on several documents prepared by AEI relating to environmental due diligence and testing of the project site, including the February 20, 2018, *Additional Subsurface Investigation & Water Well Evaluation* report. The "Response to Comments" includes AEI's response to SWAPE and is included in the record.

¹⁶¹ AEI Consultants. 2020. *Responses to Comments*. San Jose, California: AEI Consultants.

¹⁶² SWCA Environmental Consultants. 2023. *Wildfire and Evacuation Route Assessment for the Cypress Point Affordable Housing Community Project*. Half Moon Bay, California: SWCA Environmental Consultants.

3.6.1 Existing Conditions

In 1945, the project site was developed by the U.S. Navy as the Point Montara Artillery Training Station as a military training site, which included construction of barracks, offices, a mess hall, a library, a garage, a boiler room, an incinerator, a hanger, and a drill field. After World War II, the military abandoned the site and it was acquired by the Montara Elementary School District for the Farallone View Elementary School. Between 1968 and 1970, a fire destroyed the on-site buildings, leaving numerous slab-on-grade concrete foundations and retaining walls. The parcel has remained vacant since 1970.

3.6.1.1 Schools

The closest school to the project site is Farallone View Elementary School at 1100 Le Conte Avenue, Montara, California 94037, approximately 0.7 mile north of the project site in the community of Montara.

3.6.1.2 Airports

Airports in San Mateo County include San Francisco International Airport, Half Moon Bay Airport, and San Carlos Airport. The Half Moon Bay Airport is a public airport owned and operated by the County and located approximately 0.9 mile south of the project site.¹⁶³ The airport is subject to the ALUCP, as adopted by the City/County Association of Governments (C/CAG) in 2014.¹⁶⁴

3.6.1.3 Hazardous Materials

Given the site's history, extensive site investigations have been completed. A description of each study and the findings are summarized below.

3.6.1.3.1 HAZARDOUS MATERIALS DATABASES

As of May 22, 2023, the project site is not listed on the State Water Resources Control Board (SWRCB) Geotracker¹⁶⁵ database, or the California Department of Toxic Substances Control (DTSC) Envirostor¹⁶⁶ database. These database reviews indicate that the proposed project is not located on a known hazardous materials site.

3.6.1.3.2 SITE INVESTIGATIONS

Phase I Environmental Site Assessment – November 10, 2015

A Phase I environmental site assessment (Phase I ESA)¹⁶⁷ found recognized environmental conditions (RECs) on-site which included the potential presence of lead-based paint in soils surrounding the building foundations, the “drill field,” which may have been used for weaponry or as a shooting range, concrete pad areas potentially used for firefighter training, and an incinerator. In addition, during the planning

¹⁶³ County of San Mateo. 2023. Half Moon Bay Airport. Available at: <https://www.smcgov.org/publicworks/half-moon-bay-airport>. Accessed January 20, 2023

¹⁶⁴ City/County Association of Governments of San Mateo County (C/CAG), 2014. *Airport Land Use Compatibility Plan for the Environs of Half Moon Bay Airport*. Available at: <https://ccag.ca.gov/wp-content/uploads/2014/10/HAF-ALUCP-Final.pdf>. Accessed January 20, 2023.

¹⁶⁵ SWRCB. 2023. Geotracker database. Available at: <https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=moss+beach%2C+ca>. Accessed May 22, 2023.

¹⁶⁶ DTSC. 2023. Envirostor database. Available at: <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=moss+beach%2C+ca>. Accessed May 22, 2023.

¹⁶⁷ AEI, 2015.

stages of the limited Phase II subsurface investigation,¹⁶⁸ a boiler room was noted and identified as a REC to be further investigated.

Draft Site Management Plan – March 2, 2015

The draft site management plan (SMP) was developed to address worker protection and environmental concerns during construction activities at the site. The SMP provides information regarding site-specific conditions and previous investigation results, a summary of known and potential environmental conditions and contaminants of potential concern, provisions for a site-specific health and safety plan (HASP), as well as odor, stormwater, and noise control plans for worker protection, guidelines for sampling and managing impacted or potential-impacted soils that may be encountered (contingency plan), notification(s) to appropriate regulatory agencies, and documentation of environmental conditions encountered during project construction activities.

Limited Phase II Subsurface Investigation – February 15, 2016

A limited Phase II subsurface investigation (Phase II investigation) was completed in February 2016.¹⁶⁹ The purpose of the investigation was to assess whether subsurface conditions (i.e., soil) beneath the property have been impacted by the historical on-site operations. Thirty-three borings were taken from across the project site. Concentrations of the various chemical constituents in soil were compared with their respective Regional Water Quality Control Board (RWQCB) environmental screening levels (ESLs) and U.S. Environmental Protection Agency (EPA) regional screening levels (RSLs) for regulatory screening levels. None of the detected chemicals were found to exceed their respective RWQCB ESLs and EPA RSLs except for lead detected within surface soils at two locations and arsenic detected at 1.5 feet below ground surface (bgs) at one location.

Additional laboratory analyses were run on soil samples obtained from 1.5 feet bgs to assess the vertical extent of lead-impacted soils at these two locations. Analytical results for the soil samples at 1.5 feet bgs showed lead concentrations below RWQCB and EPA screening levels.

Arsenic was detected at one location, but the detection is representative of naturally occurring asbestos and the concentration was typical for this type of soil found within the San Francisco Bay Area.

Analytical results from the Phase II investigation suggest that lead detected in soils could have originated from lead-based paint on former building exteriors. Analytical results also suggest that lead concentrations, where elevated, are localized and appear to be restricted to surface soils at the two identified locations. The vertical extent of lead-impacted soils at these two locations has been delineated on the basis of the lead concentrations not exceeding their RWQCB ESLs. The horizontal extent of lead-impacted soils at these two locations is undefined.

AEI recommended that a limited soil sampling program be performed to further assess the horizontal extent of lead-impacted surface soils around the two identified locations. AEI also recommended that the steel cover for the “upper well” be removed and an experienced water well driller under subcontract to AEI to measure the well depth, as well as to determine if the well has been properly abandoned in accordance with the County’s Environmental Health Services (EHS) regulations.

¹⁶⁸ AEI. 2016a.

¹⁶⁹ AEI. 2016a.

Additional Subsurface Investigation and Water Well Evaluation – February 20, 2018

An additional subsurface investigation and water well evaluation report was prepared based on the conclusions and recommendations presented in AEI's Phase II investigation report dated February 15, 2016 (described above). The purpose of the investigation was to assess the horizontal extent of lead-impacted soils around that exceeded RWQCB ESLs (Borings B-7 and B-21). Work included a limited drilling/confirmation sampling program and further inspection and evaluation of the existing water supply well for future abandonment purposes. The well was found to have not been properly abandoned in accordance with EHS regulations.

To determine the extent of the lead-impacted soil, six shallow borings were drilled during this investigation. The borings were positioned around two locations (Borings B-7 and B-21) where lead concentrations had been found to exceed applicable RWQCB ESLs during the previous investigation. Results showed concentrations of lead that were below applicable RWQCB ESLs except for one of the six locations. Because of this outlier, a statistical analysis was performed to establish a representative site-wide background concentration for lead, as well as to evaluate its potential human health risk in shallow soils. The calculated 95% adjusted gamma upper confidence limits for lead in shallow soils is 42.04 milligrams per kilogram, which is below its applicable RWQCB ESLs for both residential and construction worker scenarios. The investigation concluded that the lead concentrations in shallow soils across the site do not pose a significant potential human health risk relative to the planned development.

While no known environmental conditions have been identified, as a precautionary measure, it is recommended that the mitigations from the SMP prepared in 2015 be implemented to provide a framework for appropriately addressing potential environmental conditions, such as underground storage tanks (USTs) or other subsurface structures, that may be encountered during future development activities. Upon completion of the well evaluation, AEI did not recommend further investigation and no remedial action was required. AEI recommended that the existing well be properly destroyed in accordance with EHS regulations.

Water Well Sampling and Well Destruction – April 9, 2018

In 1986, two domestic water supply wells were installed on the project site and the permits were granted to the California School Employee Association.¹⁷⁰ Both wells were abandoned at an undetermined date. One well near the northern property boundary was discovered in 2015 during the Phase II investigation for the project. The second well was not found during site reconnaissance.

In 2018, AEI undertook water well sample and well destruction at the project site. A drilling permit was issued on February 9, 2018, from EHS for the well destruction. Utility clearance was completed on February 21, 2018. No underground utilities were found to be present around the existing well.

During well destruction activities, an old submersible pump blocked further drilling at approximately 350 feet bgs. The pump was likely left in place from when the well was installed in 1986. Because of this blockage, EHS was contacted for further direction, and approved destruction of the well at 350 feet bgs, instead of 400 feet. The well was cleared of debris, demolished, and sealed with cement at 350 feet bgs on March 7, 2018, in accordance with EHS requirements.¹⁷¹ Further details of the well destruction can be found in the water well sampling and well destruction report.¹⁷²

¹⁷⁰ AEI, 2015.

¹⁷¹ AEI, 2018b.

¹⁷² AEI, 2018b.

Groundwater sampling was performed prior to well destruction. The depth of the groundwater was approximately 54 feet below the top of the well casing. Elevated concentrations of petroleum hydrocarbons like diesel and motor oil were encountered, in addition to volatile organic compounds (VOCs). The concentrations of diesel and motor oil were attributed to the older submersible pump that had been left in the well for approximately 30 years. Submersible pumps are known to have seals, bearings, and oil-filled capacitors that contain petroleum-based greases, oil, and lubricants, all of which can leak and fail over time.

None of the detected VOCs were found to exceed their applicable RWQCB ESLs except for naphthalene, which was found at a concentration (1.9 micrograms per liter) slightly above its RWQCB ESL for direct exposure human health risk levels, including maximum contaminant level priority and human health risk based only levels.

Confirmation of well destruction and the well completion report were confirmed by EHS on June 11, 2018, via email. A copy of the confirmation email is included as Appendix F to the well destruction report.¹⁷³

Response to Comments (Received during the 2020 LCP Amendment process) – August 11, 2020

AEI prepared a response to comments document upon receipt of a public comment letter from SWAPE (an environmental consulting firm) during the LCP Amendment process. The SWAPE letter outlined concerns in the February 20, 2018, *Additional Subsurface Investigation and Water Well Evaluation Carlos Street at Sierra Street, Moss Beach, San Mateo County, California 92038* (detailed above). The related to two concerns included: 1) the appropriate use of statistical analyses of lead test results, and 2) the relevance of the referenced terrestrial habitat ESL for lead published after issuance of the water well evaluation site analysis.¹⁷⁴

With regards to statistical analysis, the response to comments letter reads:

In accordance with the ‘User’s Guide: Derivation and Application of Environmental Screening Levels, Interim Final 2019’ prepared by the San Francisco Bay RWQCB, the 95-percent upper confidence limit was used to estimate the exposure point concentration (EPC). It is appropriate to statistically estimate the EPC, and not use only the maximum-detected concentrations, since the site will be developed with multiple scattered buildings ...that would be surrounded by landscaping and hardscape constituting the common area spaces around the buildings, which limits exposure to site soils. These units do not have private yards or gardens, nor are the units to be constructed on individual smaller lots or parcels as would occur for single family homes, condominium, or town-home developments. Therefore, in considering the theoretical exposure to soil by a given future resident, such exposure would be across the larger development, not concentrated in an individual smaller yard area where exposure to a localized “hot spot” would constitute a large fraction of the soil exposure. The project will not create an exceedance of the human health ESL for lead and further mitigation is not necessary.¹⁷⁵

With regard to the terrestrial habit ESL, the response to comments letter reads:

The Terrestrial Habit ESL for lead in soil was first published in the ... ESLs issued in July 2019, after the issuance of the” *Additional Subsurface Investigation & Water Well Evaluation.*”

¹⁷³ AEI, 2018b.

¹⁷⁴ AEI, 2020.

¹⁷⁵ AEI, 2020.

The RWQCB continues to provide guidance on how this Terrestrial Habitat ESL should be used. As outlined in Sec 8.0 of the ESL guidance document, it should be noted that the Terrestrial Habitat ESLs are not applicable to aquatic habitats (e.g., wetlands; ephemeral, intermittent or perennial streams; rivers and mudflats; ponds or lakes; vernal pools; marine intertidal areas). Following development, much of the soils will be improved with buildings and hardscape (Parking, walkways, etc.), including much of the area with the higher lead detections; essentially eliminating the exposure pathway in these areas. The project does include landscaped areas developed with typical imported topsoil, and landscaping. There will be minimal habitat for terrestrial animals or flora, and where there is habitat, site soils will be below imported topsoil, further limiting contact. The project does not create substantial habitat using soils of the site, therefore additional analysis or mitigation is not necessary.¹⁷⁶

3.6.1.4 Emergency Access

Vehicular ingress/egress to the project site would be provided by a new 28-foot-wide single driveway on Carlos Street on the western boundary of the site, which exceeds the 20-foot road width requirement in the California Fire Code, Section 503.¹⁷⁷ In addition to the Carlos Street entrance, a 20-foot-wide emergency access route from Lincoln Street to the northeast corner of the project would be constructed.

Major roadways near the project site include Highway 1 and California Street. The project site can be accessed from the surrounding roadway network, including Carlos Street, Sierra Street, and Lincoln Street, located to the west, south, and east of the site, respectively. Emergency access onto the project site would be provided via Cabrillo Highway to Carlos Street, and via Lincoln Street.

3.6.1.5 Emergency Evacuation and Response

Evacuation routes are not specifically identified in San Mateo County. The County General Plan¹⁷⁸ states that “the County does not actively promote the preparation of disaster response plans for major fires that specify evacuation routes, identify areas that may be isolated, and define reconstruction policies.” The General Plan also notes that evacuation of residents from remote areas could be problematic due to rural roads potentially being incapable of accommodating two-way traffic during an emergency and lack of secondary means of access to many remote parcels.¹⁷⁹ The County does have an Emergency Operations Plan (EOP)¹⁸⁰ (see further discussion under Section 3.6.2, Regulatory Setting), which establishes policies and procedures and assigns responsibilities to ensure the effective management of emergency operations within San Mateo County.

3.6.1.6 Wildland Fires

The project site is not located within a California Department of Forestry and Fire Protection (CAL FIRE)–designated very high, high, or moderate fire hazard severity zone (FHSZ).¹⁸¹

¹⁷⁶ AEI, 2020.

¹⁷⁷ SWCA, 2023.

¹⁷⁸ County of San Mateo. 2021. *County of San Mateo General Plan*. Available at: <https://www.smcgov.org/planning/general-plan-policies>. Accessed March 2023.

¹⁷⁹ County of San Mateo. 2021.

¹⁸⁰ San Mateo County Sheriff’s Office. 2015. Emergency Operations Plan. Available at: <https://hsd.smcsheriff.com/sites/default/files/downloadables/1%20-%20Emergency%20Operations%20Plan.pdf>. Accessed April 2023.

¹⁸¹ County of San Mateo. 2007. Very High Fire Hazard Severity Zones. Available at: <https://www.smcgov.org/media/73036/download?inline=>. Accessed June 2023.

The Coastside Fire Protection District (Coastside FPD) would provide fire protection services and emergency response on the project site. The Coastside FPD serves the City of Half Moon Bay; the communities of Montara, Moss Beach, Princeton, El Granada, and Miramar; and the surrounding unincorporated areas. Its service area covers approximately 50 square miles and serves a population of approximately 30,000 residents. In addition to traditional fire services, the Coastside FPD provides advanced life support, cliff rescue, water rescue, confined space rescue, and vehicle and residential lock-out services, responding to approximately 2,600 calls each year. These incidents include medical aid, fires and fire alarms, water rescue, cliff rescue, traffic accidents, odor investigations, hazardous materials, and public service assists.

Three fire stations operate within the Coastside FPD: Fire Station 44, located on Stetson Street in Moss Beach 1 block (approximately 300 feet) from the project site; Fire Station 40, located within the downtown area of the City of Half Moon Bay; and Fire Station 41, located within the unincorporated area of El Granada. Fire Station 40 serves as the Coastside FPD headquarters. Fire Station 44 (Moss Beach) would provide initial fire and emergency medical service response to the project site, and Fire Stations 41 (El Granada) and 40 (Half Moon Bay) would support the initial response, if needed.

Coastside FPD's response time goal is within 6 minutes 59 seconds of receiving a call. In an email to SWCA on May 11, 2023, the Coastside FPD Chief confirmed that response times are currently met throughout the service area.¹⁸² The proximity of Fire Station 44 to the project site indicates that response times would meet the established goal.

The Coastside FPD has 32 paid positions, along with 11 volunteer firefighter positions. Paid positions include one assistant fire chief, one fire marshal, one deputy fire marshal, four battalion chiefs, and two administrative support positions. All stations are staffed with one fire captain and two fire apparatus engineers, one of which is a paramedic to provide advanced life support service. Shift personnel work a scheduled 3-day/72-hour workweek.

The Half Moon Bay Volunteer Fire Department (Volunteer Fire Department) is a volunteer division of the Coastside FPD. The Volunteer Fire Department has approximately 15 members and is under the direction of the fire chief. The number of volunteers reflects the current needs of the Volunteer Fire Department and is determined by the chief of the volunteer division. The objectives of the Volunteer Fire Department are to operate within the boundaries of the Coastside FPD as a supplemental force to the regular paid department, and to operate as a trained unit for both fire suppression and non-suppression situations.

3.6.1.7 Flood Hazards

Most of the project site is located outside a Federal Emergency Management Agency (FEMA) flood hazard zone. A small portion of the site along the northern boundary lies within the flood hazard Zone X associated with Montara Creek. However, the water surface elevation in Montara Creek is approximately 100 feet below the portion of the site planned for development.

¹⁸² Personal communication between Coastside Fire Department Chief and Erica Rippe, dated May 11, 2023.

3.6.2 Regulatory Setting

3.6.2.1 Federal Regulations

3.6.2.1.1 NATIONAL FLOOD INSURANCE PROGRAM

FEMA is responsible for determining flood elevations and floodplain boundaries based on U.S. Army Corps of Engineers studies. FEMA is also responsible for distributing the flood insurance rate maps used in the National Flood Insurance Program (Title 42 United States Code [USC] Chapter 50, Section 4102). These maps identify the locations of special flood hazard areas, including 100-year floodplains. FEMA allows non-residential development in the floodplain; however, FEMA has criteria to “constrict the development of land which is exposed to flood damage where appropriate” and “guide the development of proposed construction away from locations which are threatened by flood hazards.” Federal regulations governing development in a floodplain are set forth in 44 Code of Federal Regulations (CFR) 60, enabling FEMA to require municipalities that participate in the National Flood Insurance Program to adopt certain flood hazard reduction standards for construction and development in 100-year floodplains.

3.6.2.1.2 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (42 USC SECTION 9601 ET SEQ.)

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is intended to protect the public and the environment from the effects of past hazardous waste disposal activities and new hazardous material spills. Under CERCLA, the EPA has the authority to identify the parties responsible for hazardous materials releases and to ensure their cooperation in site remediation. CERCLA also provides federal funding (through the “Superfund”) for the remediation of hazardous materials contamination. The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499) amends some provisions of CERCLA and provides for a Community Right-to-Know program.

3.6.2.1.3 RESOURCE CONSERVATION AND RECOVERY ACT (42 USC SECTION 6901 ET SEQ.)

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 as an amendment to the Solid Waste Disposal Act to address the nationwide generation of municipal and industrial solid waste. RCRA gives EPA the authority to control the generation, transportation, treatment, storage, and disposal of hazardous waste, including underground storage tanks storing hazardous substances. RCRA also establishes a framework for the management of nonhazardous wastes. RCRA addresses only active and future facilities; it does not address abandoned or historical sites, which are covered by CERCLA (as described above).

3.6.2.1.4 OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

The Occupational Safety and Health Act created the Occupational Safety and Health Administration (OSHA) to ensure safe and healthful conditions for workers by setting and enforcing standards and by providing training, outreach, education, and assistance. To fulfill this purpose, OSHA develops and enforces mandatory job safety and health standards. These standards, codified in 29 CFR 1910, address issues that range in scope from walking and working surfaces, to exit routes and emergency planning, to hazardous materials and personal protective equipment (PPE). They include exposure limits for a wide range of specific hazardous materials, including pesticides, as well as requirements that employers provide PPE (i.e., protective equipment for eyes, face, or extremities; protective clothing, and respiratory

devices) to their employees wherever it is necessary (i.e., when required by the label instructions) (29 CFR 1910.132).

3.6.2.2 State Regulations

3.6.2.2.1 CALIFORNIA DEPARTMENT OF WATER RESOURCES

The California Department of Water Resources (DWR) is the state agency that studies, constructs, and operates regional-scale flood protection systems, in partnership with federal and local agencies. DWR also provides technical, financial, and emergency response assistance to local agencies related to flooding.

Several bills were signed by Governor Schwarzenegger in 2007, adding to and amending state flood and land use management laws. The laws contain requirements and considerations that outline a comprehensive approach to improving flood management at the state and local levels.

FloodSAFE California is a strategic multifaceted program initiated by DWR in 2006. FloodSAFE guides the development of regional flood management plans, which encourage regional cooperation in identifying and addressing flood hazards. Regional flood plans include flood hazard identification, risk analyses, review of existing measures, and identification of potential projects and funding strategies. The plans emphasize multiple objectives, system resiliency, and compatibility with state goals and integrated regional water management plans. DWR has the lead role to implement FloodSAFE and will work closely with state, federal, Tribal, and local partners to help improve integrated flood management systems statewide. DWR's role is to advise and assist local jurisdictions as they pursue compliance.

3.6.2.2.2 HAZARDOUS WASTE CONTROL ACT OF 1972

The Hazardous Waste Control Act created the Hazardous Waste Management Program and is implemented by regulations contained in Title 26 of the California Code of Regulations (CCR). These regulations list more than 800 materials that may be hazardous and establish criteria for their identification, packaging, and disposal. Under the Hazardous Waste Control Act and 26 CCR, hazardous waste generators must complete a manifest that accompanies the waste from the generator to the transporter to the ultimate disposal location. Copies of the manifest must be filed with DTSC.

3.6.2.2.3 CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION STANDARDS

Title 8 of the California Occupational Safety and Health Administration (Cal/OSHA) regulations specifies that workers who may be exposed to contaminated soils, vapors that could be inhaled, or groundwater containing hazardous levels of constituents are subject to monitoring and personal safety equipment requirements that specifically address airborne contaminants. The primary intent of the Title 8 requirements is to protect worker health.

3.6.2.2.4 EMERGENCY SERVICES ACT

Under the Emergency Services Act, the State of California developed a plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an important part of the plan, which is administered by the California Office of Emergency Services. This office coordinates the responses of other agencies, including EPA, the California Highway Patrol, the nine RWQCBs, the various air quality management districts, and County disaster response offices.

3.6.2.2.5 PESTICIDE REGULATIONS

EPA has delegated primary authority to the California Department of Pesticide Regulation (CDPR) to enforce federal and state laws pertaining to the proper and safe use of pesticides. County Agricultural Commissioners (CACs) and their staffs are largely responsible for the in-field enforcement of CDPR's pesticide use regulations in California's 58 counties. Personnel from CDPR's headquarters and CDPR field staff provide training, coordination, technical, and legal support to the counties.

Title 3 CCR, Division 6 describes the role of CDPR and provides guidance related to pesticide regulatory programs; pesticides (including pesticide registration and the identification and use of restricted materials); licensing, work requirements, and pesticide-related worker safety during pest control operations; and environmental protection for groundwater, air quality, aquatic and marine environments, surface water, and compost. The CACs, on behalf of CDPR, are responsible for enforcement of these human health and environmental protections in the field.

3.6.2.3 Local Regulations

3.6.2.3.1 AIRPORT LAND USE COMPATIBILITY PLANS

Airport land use compatibility plans generally are designed to encourage compatible land uses in the vicinity surrounding an airport by providing for the "orderly growth of each public airport and the area surrounding the airport" while safeguarding "the welfare of the inhabitants within the vicinity of the airport and the public in general."¹⁸³ Airport land use compatibility plans describe existing and planned uses in the vicinities of airports, and define noise exposure contours for land uses near airports. Airport land use compatibility plans also typically provide a figure showing the boundaries of Federal Aviation Administration structure height requirements to protect navigable airspace. Airport land use compatibility plans have been prepared for the three airports located in San Mateo County, as follows:

- *Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport*¹⁸⁴
- *Final Airport Land Use Compatibility Plan for the Environs of Half Moon Bay Airport*¹⁸⁵
- *Draft Final Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport*¹⁸⁶

3.6.2.3.2 SAN MATEO COUNTY LOCAL HAZARD MITIGATION PLAN

Beginning in February 2021, a partnership of 36 local governments and special districts in San Mateo County began working together to update the San Mateo County Multijurisdictional Local Hazard Mitigation Plan (LHMP).¹⁸⁷ The LHMP enables the jurisdictions to use pre- and post-disaster financial assistance to reduce the risk of natural hazards to people who live in the county.

¹⁸³ C/CAG. 2015. *Final Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport*. Available at: <https://ccag.ca.gov/plansreportslibrary-2/airport-land-use/>. Accessed April 20, 2023.

¹⁸⁴ C/CAG. 2012. *Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport*. Available at: https://ccag.ca.gov/wp-content/uploads/2014/10/Consolidated_CCAG_ALUCP_November-20121.pdf. Accessed April 20, 2023.

¹⁸⁵ C/CAG, 2014.

¹⁸⁶ C/CAG, 2015.

¹⁸⁷ County of San Mateo. 2021. *2021 Multijurisdictional Local Hazard Mitigation Plan*. Available at: <https://www.smcgov.org/media/53471/download?inline=>. Accessed May 2023

The LHMP identifies long-term and short-term policies, programs, projects, and other activities to alleviate death, injury, and property damage that can result from a disaster. The types of hazards identified and described throughout the LHMP include earthquakes, dam failure, drought, wildfire, flooding, landslide, tsunami, and climate change. This plan complies with requirements for hazard mitigation planning to maintain eligibility for funding under FEMA grant programs. The LHMP also serves other purposes including enhancement of public awareness, establishes a decision tool for management, promotes compliance with state and federal program requirements, enhances local policies for hazard mitigation, supports viability after a hazard event, and provides inter-jurisdictional coordination.¹⁸⁸

3.6.2.3.3 SAN MATEO COUNTY EMERGENCY OPERATIONS PLAN

The EOP establishes policies and procedures and assigns responsibilities to ensure the effective management of emergency operations within the San Mateo County Operational Area.¹⁸⁹ It provides information on the county emergency management structure of how and when the Emergency Operations Center staff is activated.

The overall objective of the EOP is to ensure the effective coordination of response forces and resources in preparing for and responding to situations associated with natural disasters, technological incidents and national security emergencies. To carry out its responsibilities, the emergency management organization will accomplish the following objectives during an emergency/disaster:

- Maintain overall coordination/support of emergency response and recovery operations, including on scene incident management as required.
- Coordinate and liaise with appropriate federal, state, and other local government agencies, as well as applicable segments of private sector entities and volunteer agencies. Establish priorities and resolve conflicting demands for support.
- Prepare and disseminate emergency public information to alert, warn, and inform the public.
- Disseminate damage information and other essential data.

The EOP's goals are as follows:

- Provide effective life safety measures and reduce property loss and damage to the environment.
- Provide for the rapid resumption of impacted businesses and community services.
- Provide accurate documentation and records required for cost recovery efforts.

3.6.2.3.4 SAN MATEO COUNTY LOCAL COASTAL PROGRAM

The LCP provides policies regarding development and project design standards in the coastal zone of San Mateo County.¹⁹⁰ This includes hazards such as high-risk fire areas and geologic and flood hazards, noted below:

¹⁸⁸ County of San Mateo, 2021.

¹⁸⁹ San Mateo County Sheriff's Office, 2015.

¹⁹⁰ County of San Mateo. 2013. Local Coastal Program. Available at: <https://www.smcgov.org/planning/local-coastal-program>. Accessed May 20, 2023

9.9 Regulation of Development in Floodplains

a. Channelization, dams, or other stream alterations shall incorporate the best mitigation measures feasible and be limited to: (1) necessary water supply projects, (2) flood control projects where no other methods for protecting existing development or providing public safety exists, or (3) developments to enhance fish and wildlife habitat.

b. Development located within flood hazard areas shall employ the standards, limitations and controls contained in Chapter 35.5 of the San Mateo County Ordinance Code, Sections 8131, 8132 and 8133 of Chapter 2 and Section 8309 of Chapter 4, Division VII (Building Regulations), and applicable Subdivision Regulations.

9.10 Geological Investigation of Building Sites

Require the County Geologist or an independent consulting certified engineering geologist to review all building and grading permits in designated hazardous areas for evaluation of potential geotechnical problems and to review and approve all required investigations for adequacy. As appropriate and where not already specifically required, require site-specific geotechnical investigations to determine mitigation measures for the remedy of such hazards as may exist for structures of human occupancy and/or employment other than those considered accessory to agriculture as defined in Policy 5.6.

“Hazards areas” and “hazards” are defined as those geotechnical hazards shown on the current Geotechnical Hazards Synthesis Maps of the General Plan and the LCP Hazards Maps. A copy of the report of all geologic investigations required by the California Division of Mines and Geology shall be forwarded to that agency

3.6.2.3.5 CONNECT THE COASTSIDE

Connect the Coastside is the San Mateo County Midcoast Comprehensive Transportation Management Plan.¹⁹¹ Connect the Coastside aims to improve the safety and mobility for Midcoast residents, businesses, and visitors by recommending a suite of projects, policies, and programs to address current and future transportation conditions. The Midcoast area faces challenges in realizing community goals and vision for transportation. Climate change has accelerated sea level rise, coastal erosion, and the number and severity of emergencies like wildfires.

The following is an overview of different County departments and special projects related to emergency response and hazard mitigation planning:

- In the event of a disaster, the Department of Emergency Management coordinates countywide response and protection services. One of the missions of the Department of Emergency Management is to maintain and improve the countywide EOP. This plan establishes policies and procedures and assigns responsibilities to keep residents safe during an emergency situation.
- During an emergency or disaster, law enforcement is responsible for evacuation and the movement of the public away from a hazard area. Representatives from law enforcement and public safety agencies were part of the Connect the Coastside Technical Advisory Committee that reviewed and helped refine the plan proposals.
- In the event of an emergency, public safety agencies such as police and fire will be able to provide emergency information directly to people who have registered for the SMC Alert service.

¹⁹¹ (San Mateo County. 2022. *Connect the Coastside*. Available at: <https://www.smcgov.org/planning/connect-coastside>. Accessed June 2023.

These alerts may include life safety, fire, weather, accidents involving utilities or roadways or disaster notifications. For example, the SMC Alert service would be used to notify Coastside employees and citizens of available evacuation routes during an emergency.

- In March of 2019, Supervisor Don Horsley allocated \$75,000 of discretionary Measure K funds to launch the development of a countywide standardized emergency evacuation zone project (Zonehaven). The goals of the project are to reduce the amount of time it takes to notify the public, create a common operating evacuation platform for all jurisdictions, share information, and help people safely and efficiently evacuate in case of an emergency. Since the project began, the CAL FIRE San Mateo Division has worked with every fire and law enforcement agency in San Mateo County to identify over 300 evacuation zones. The project includes a public webpage that shows a map of each evacuation zone and a software application that helps first responders call for evacuations using the standard zones. This will greatly reduce the time from when an evacuation is called to when the public is notified. Additionally, the application integrates with Waze and Google Maps, so as soon as a zone is closed, people will be directed accordingly. Zonehaven was used to create an Evacuation Zone Map for the CZU Lightning Complex Fire in August 2020. The platform is available at <https://community.zonehaven.com/>.
- The County updated its LHMP and will update the Safety Element of the General Plan. The County will be working with emergency service providers such as CAL FIRE, the Department of Emergency Management, and the new Flood and Sea Level Rise Resiliency District. These efforts will further evaluate hazard risks and identify safety measures on the Midcoast.

3.6.2.3.6 SAN MATEO COUNTY GENERAL PLAN

The following policies relate to hazards from the San Mateo County General Plan¹⁹²:

Chapter 7 (General Land Use Policies) of the General Plan has the following policies to minimize the risks from natural and human made hazards:

7.6 Natural and Man-Made Hazards. Designate land uses in order to minimize the danger of natural and man-made hazards to life and property.

Chapter 8 (Urban Land Use Policies) of the General Plan has policies to minimize the risks from natural and human made hazards:

8.32 Overcoming Constraints to Development.

- a. Encourage efficient and effective infrastructure (e.g., water supply, wastewater, roads) necessary to serve the level of development allowable within urban areas.
- b. Encourage improvements which minimize the dangers of natural and manmade hazards to human safety and property.

Chapter 15 (Natural Hazards) of the General Plan has the following policies to minimize risk from natural hazards. The following policies are relevant to the proposed project:

15.1 Minimizing Risks from Natural Hazards. Minimize the potential risks resulting from natural hazards, including but not limited to, loss of life, injury, damage to property, litigation, high service and maintenance costs, and other social and economic dislocations.

¹⁹² San Mateo County. 2021a. County of San Mateo General Plan: Updated January 2013. Chapter revisions 2021. Available at: <https://www.smcgov.org/planning/general-plan-policies>. Accessed March 2023.

15.3 Incorporate Information on Natural Hazards into Land Use and Development Decisions.

Integrate data on natural hazards into review of land use and development proposals in order to identify hazardous areas, potential constraints to development and/or appropriate mitigation measures.

15.12 Locating New Development in Areas Which Contain Natural Hazards.

- a. As precisely as possible, determine the areas of the County where development should be avoided or where additional precautions should be undertaken during review of development proposals due to the presence of natural hazards.
- b. Give preference to land uses that minimize the number of people exposed to hazards in these areas.
- c. Determine appropriate densities and development.
- d. Require detailed analysis of hazard risk and design of appropriate mitigation when development is proposed in these areas, including assessment of hazardous conditions expected to be exacerbated by climate change, such as increased risks of fire, flooding, and sea level rise.

15.13 Abatement of Natural Hazards.

- a. Inventory and, where feasible, abate, repair, or rehabilitate natural hazard conditions which most directly threaten public health, safety, and property, giving priority to those hazards which directly threaten critical facilities, life and property.
- b. Where feasible, provide for adaptive reuse rather than demolition of existing facilities.

15.14 Disclosure of Natural Hazards. Make efforts to inform the public, including potential buyers of property, that a parcel is located in an area of possible natural hazards. Methods to be used include but are not limited to provision of access to County data, preapplication conferences, environmental review, deed restrictions, requirements for site-specific investigations, educational programs, or other appropriate mechanisms.

15.27 Appropriate Land Uses and Densities in Fire Hazard Areas.

- a. In rural areas, consider lower density land uses that minimize the exposure of significant numbers of people to fire hazards.
- b. Consider higher density land uses for fire hazard areas in the rural area if development is clustered near major roads, has adequate access for fire protection vehicles and can demonstrate adequate water supplies and fire flow.
- c. In urban areas, consider higher density land uses to be appropriate if development can be served by CDF/County Fire Department, a fire protection district or a city fire department, adequate access for fire protection vehicles is available and sufficient water supply and fire flow can be guaranteed.

15.28 Review Criteria for Locating Development in Fire Hazard Areas

- a. Wherever possible, cluster new development near existing developed areas where there are adequate water supplies and good access for fire vehicles.
- b. When development is proposed in hazardous fire areas, require that it be reviewed by the County Fire Warden to ensure that building materials, access, vegetative clearance from structures, fire flows and water supplies are adequate for fire protection purposes and in conformance to the fire policies of the General Plan.

15.30 Standards for Water Supply and Fire Flow for New Development

- a. Require connection to a public water system or private water company or provision of an on-site water supply as a condition of approval for any new development proposal.
- b. Determine the quantity of on-site water supply, fire flow requirements and spacing and installation of hydrants in accordance with the standards of the agency responsible for fire protection for the site proposed for development.
- c. Consider the use of additional on-site fire protection devices including but not limited to the use of residential sprinkler systems and contracting the services of private alarm companies for development proposed in remote areas.

15.31 Standards for Road Access for Fire Protection Vehicles to Serve New Development

- a. Consider the adequacy of access for fire protection vehicles during review of any new development proposal.
- b. Determine the adequacy of access through evaluation of length of dead-end roads, turning radius for fire vehicles, turnout requirements, road widths and shoulders and other road improvement considerations for conformance with the standards of the agency responsible for fire protection for the site proposed for development.
- c. To the maximum extent possible, design access for fire protection vehicles in a manner which will not result in unacceptable impacts on visual, recreational and other valuable resources.

15.32 Street Signing. Support efforts to identify all roads, streets and major public buildings in a manner so that they are clearly visible to fire protection and other emergency vehicles.

15.33 Road Patterns

- a. Ensure road patterns that facilitate access for fire protection vehicles and provide secondary access and emergency evacuation routes when reviewing proposals for new subdivisions.
- b. Encourage the Department of Public Works to study existing road patterns that have access problems to determine the feasibility and costs of access improvements.
- c. Encourage fire protection agencies to identify emergency access and evacuation routes for existing developed areas and to provide this information to area residents.

15.34 Vegetative Clearance Around Structures.

- a. Require clearance of flammable vegetation around structures as a condition of approval to new development in accordance with the requirements of the agency responsible for fire protection.
- b. Conduct periodic inspections to ensure maintenance of required clearances.

15.35 Fire-Retardant Vegetation. Encourage the use of fire-retardant vegetation when reviewing new development proposals.

15.39 Support Structural Requirements of the County Building Codes. Support the standards for fire resistant construction contained in the County Uniform Construction Administration Code, including but not limited to requirements for fire resistant roofing, ventilation, windows, chimneys, fire walls and other construction materials.

15.40 Support Efforts to Inventory and Abate Structures that are Fire Hazard Risks.

- a. Support efforts to inventory and abate structures that do not meet existing fire codes and/or are vulnerable to damage from disastrous fire events.
- b. Encourage repair, rehabilitation, or adaptive reuse of structures requiring abatement, rather than demolition.

15.41 Incorporate Fire Hazard Concerns During Review of Proposals for New Development.

Incorporate fire hazard concerns into the review of proposals for new development through measures, including but not limited to: (1) regulation of land use and limitation of density, (2) review of access, water supply and hydrant location, (3) conformance to defined hazardous areas design criteria, and (4) conformance with established building code requirements.

Chapter 16 (Man-Made Hazards) of the General Plan has the following policies to minimize risk from human made hazards. The following policies are relevant to the proposed project:

16.47 Strive to Protect Life, Property, and the Environment from Hazardous Material Exposure.

Strive to protect public health and safety, environmental quality, and property from the adverse effects of hazardous materials through adequate and responsible management practices.

16.48 Strive to Ensure Responsible Hazardous Waste Management. Strive to ensure that hazardous waste generated within San Mateo County is stored, treated, transported and disposed of in a legal and environmentally safe manner so as to prevent human health hazard and/or ecological disruption.

16.49 Strive to Reduce Public Exposure to Hazardous Materials. Strive to reduce public exposure to hazardous materials through programs which: (1) promote safe transportation, (2) prevent accidental discharge, and (3) promote effective incident response, utilizing extensive inventory and monitoring techniques.

16.50 Reduce Public Exposure to Hazardous Waste. Strive to reduce public exposure to hazardous waste through programs which: (1) emphasize decreased generation of hazardous waste, (2) promote increased disposal capability for small generators of hazardous waste, including households and small businesses, (3) promote safe transportation of hazardous waste, (4) promote treatment and processing techniques as alternatives to landfill disposal of hazardous waste, and (5) prevent illegal disposal of hazardous waste.

16.53 Regulate Location of Hazardous Material Uses: Regulate the location of uses involving the manufacture, storage, transportation, use, treatment, and disposal of hazardous Hazards and Hazardous materials to ensure community compatibility. Provide adequate siting, design, and operating standards.

16.55 Encourage Adoption and Enforcement of Fire Code Hazardous Material Storage Permit Provisions. Encourage fire protection agencies serving the unincorporated area to adopt and enforce existing Uniform Fire Code provisions which authorize fire agency issuance of hazardous material storage permits so as to: (1) assure proper hazardous material storage, (2) prevent accidental discharge or spill, and (3) provide necessary inventory information beneficial to timely and efficient incident response and containment. Assure that relevant hazardous material inventory information is referred to the County and made available to the public.

16.68 Strive Toward Safe Building Construction. Strive toward safe building construction and full elimination of hazardous conditions.

16.69 Definition of Hazardous Structure. Define hazardous structure as a building or structure which is structurally unsafe, without adequate egress, a fire hazard or otherwise dangerous to human life by reason of improper construction, inadequate maintenance, dilapidation, obsolescence or abandonment, as specified in the San Mateo County Uniform Construction Code.

16.70 Regulate Building Construction. Regulate building construction practices to prevent hazardous structures and assure structural safety. Measures may include required conformance to an accepted set of construction standards, and authority to inspect suspected dangerous buildings, halt improper construction activities, and eliminate hazardous conditions.

3.6.2.3.7 SAN MATEO COUNTY ENVIRONMENTAL HEALTH SERVICES

EHS ensures a safe and healthy environment in San Mateo County through education, regulation, and monitoring. Services include but are not limited to hazardous waste management, restaurant inspections, housing inspections, medical waste disposal, water protection, water quality monitoring, and pollution prevention.

The following programs are under EHS¹⁹³:

- The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) was established in 1993 and EHS was designated the Certified Unified Program Agency for San Mateo County in 1996. The Unified Program aims to protect public health and safety, restore and enhance environmental quality, and sustain economic vitality for the region. Compliance with the Unified Program is achieved through routine inspections and investigations into complaints or inquiries regarding disposal of hazardous materials.
- The Household Hazardous Waste (HHW) Program helps residents dispose of or recycle their residential hazardous waste properly at no cost. HHW is accepted at designated collection facilities and EHS events. Collected waste is either reused, recycled, processed for energy recovery, or stabilized for proper disposal to avoid HHW in landfills.

3.6.3 Thresholds of Significance

The determinations of significance of project impacts are based on applicable policies, regulations, goals, and guidelines defined by the California Environmental Quality Act (CEQA) and the County. Specifically, the project would be considered to have a significant effect on hazards and hazardous materials if the effects exceed the significance criteria described below:

1. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
2. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
3. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
4. Would the project 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?

¹⁹³ San Mateo County Health. 2023. Certified Unified Program Agency (CUPA). Available at: <https://www.smchealth.org/hazardous-materials-cupa>. Accessed June 2023.

5. Would a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project vicinity?
6. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
7. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?
8. Place housing within an existing 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?
9. Place within an existing 100-year flood hazard area structures that would impede or redirect flood flows?
10. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? Or
11. Inundation by seiche, tsunami, or mudflow?

Each of these thresholds is discussed under Section 3.6.5, Impacts and Mitigation Measures.

The Initial Study checklist topic 2.9 Hazards and Hazardous Materials topics (c) and (e) are considered less than significant and are not addressed within this environmental impact report (EIR). See Appendix B for the Initial Study.

3.6.4 Impact Assessment and Methodology

The analysis also considers existing regulations that apply to building design and construction, including the California Building Code. Through compliance with the existing codes and ordinances, the project would be required to demonstrate compatibility with the hazardous materials handling, use and transport before issuing building permits.

3.6.5 Impacts and Mitigation Measures

Impact HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (Less than Significant with Mitigation)

A significant impact may occur if a project would involve the use or disposal of hazardous materials as part of its routine operations or would have the potential to generate toxic or otherwise hazardous emissions that could adversely affect sensitive receptors.

Construction of the project would involve the transport, use, and disposal of potentially hazardous materials. These materials include lime, paints, adhesives, surface coatings, cleaning agents, fuels, and oils. As described in Chapter 2, Project Description, construction activities would be temporary and last approximately 18 months. These temporary construction activities involving the use, transport, storage, and disposal of hazardous materials would be conducted in compliance with all health and safety requirements, such as General Plan policies, OSHA regulations and California Health and Safety Code Article 1, and CCR Title 19, Public Safety, Division 2 (if required). Transporter information and disposal location(s) for soils have not yet been finalized. The names and applicable license information of such operators would be provided to EHS once confirmed.

Given the site history, numerous site investigations were completed to understand which hazardous materials (including pesticides, herbicides, other toxic substances, and radioactive materials) could be present on the project site in soils and/or groundwater. AEI completed studies in November 2015, February 2016, February 2018, April 2018, and August 2020. These studies are detailed in Section 3.6.1.3.2, Site Investigations, above.

Proposed project activities do not include off-haul of lead-impacted soils nor surplus soils from construction activities. While the project does not require the use of hazardous materials beyond those commonly used for construction activities and is not located in proximity to sensitive receptors or resources, the applicant would comply with applicable regulations and laws pertaining to the transport, storage, use, and disposal of potentially hazardous materials. Additionally, site testing did not encounter unsafe levels of lead in the soil; however, there is a chance that additional contaminated soil may be discovered during construction activities. The SMP recommends the following mitigation measures—including **MM-HAZ-1a** and **MM-HAZ-1e**—to ensure that the hazardous materials impact related to transport, use, and disposal would be less than significant with the following mitigation incorporated.

HAZ-1a Preconstruction Planning and Notification

Prior to the start of construction activity involving below-groundwork (e.g., slab removal or excavating), a copy of the SMP shall be provided by the applicant to all contractors for review.

HAZ-1b Implement Site-Specific Health and Safety Worker Requirements

Prior to the start of construction, a HASP shall be prepared by the General Contractor. The General Contractor and any subcontractors shall be responsible for the health and safety of their own workers, as required by Cal-OSHA, including but not limited to preparation of their own HASP and Injury and Illness Prevention Plan (IIPP). The HASP(s) shall contain provisions for limiting and monitoring chemical exposure to construction workers, chemical and non-chemical hazards, emergency procedures, and standard safety protocols.

The General Contractor shall submit the HASP to San Mateo County Environmental Health Services (EHS) at least 2 weeks prior to beginning construction field work. HASPs shall be updated as the project proceeds if unforeseen conditions are identified and necessitate modifications.

HAZ-1c Construction Best Management Practices

The following best management practices shall be implemented during construction.

1. Site Control: Site control procedures shall be implemented by the General Contractor to control the flow of personnel, vehicles, and materials in and out of the site while working with potentially contaminated materials. To control the spread of the contaminants of potential concern, the following controls shall be taken by the General Contractor:
 - a. The site perimeter shall be fenced by the General Contractor.
 - b. Access and egress shall be controlled at selected locations.
 - c. Signs shall be posted at each entrance by the General Contractor, instructing visitors to sign in at the project support area.
2. Equipment Decontamination: Decontamination procedures shall be established and implemented by the General Contractor to reduce the potential for construction equipment and vehicles to transfer potentially impacted soil onto public roadways or other off-site areas. Gravel shall be placed at all site access points by the General Contractor and excess soil shall be removed from

construction equipment using dry methods (e.g., brushing or scraping) prior to moving equipment off-site.

3. Personal Protective Equipment: PPE shall be used to isolate workers from the contaminant of potential concern and physical hazards. The minimum level of protection for workers coming into direct contact with potentially contaminated materials is OSHA Level D PPE, listed below.

The level of PPE shall be evaluated by the General Contractor on a continuing basis and modified, based upon conditions encountered at the site. The minimum PPE to be utilized during construction activities shall include the following:

- Coveralls or similar construction work clothing;
- Reflective safety vests;
- Steel-toed boots;
- Hard hat;
- Work gloves, as necessary;
- Safety glasses, as necessary; and
- Hearing protection, as necessary.

HAZ-1d Dust Control Measures

All demolition and construction activities that have the potential to create dust shall comply with specified dust control measures. The following actions are required by the General Contractor to adequately address dust control:

- Construction areas shall be watered down at a sufficient frequency to eliminate visible dust. Additional watering may be required whenever the wind speed exceeds 15 miles per hour. Watering shall be performed in a manner such that runoff will not be produced at any time.
- At the end of each workday, all streets, sidewalks, paths, and intersections where work has occurred shall be swept or vacuumed to remove visible soil(s).
- All inactive soil piles expected to remain in-place for more than 7 days shall be covered with plastic sheeting or an equivalent tarp and properly secured to avoid wind damage.
- Signage shall be placed along Lincoln, Sierra, Carlos, and Stetson Streets to inform surrounding community members of the hotline phone number(s) to call and report visible dust problems.
- If proposed dust suppression efforts are unsuccessful, other measures shall be implemented to help control dust, such as wind breaks and/or dust curtains along street frontages, pending final resolution of necessary dust suppression efforts.
- Materials contained in all loading trucks or metal bins carrying excavated materials shall be maintained below the sides and back of the truck or metal bin and shall be properly covered to avoid dust generation and drying of soils during transport. Excavated materials may be moistened prior to transport.
- Drop heights shall be minimized while loading and unloading soil.
- Truck tires shall be brushed prior to leaving the site, and truck loading areas will be routinely swept and cleaned to avoid creating visible dust. Soil handling activities shall be halted when the wind speed exceeds 25 miles per hour and visible dust is being created that cannot be mitigated by soil moistening.

HAZ-1e Retain a Hazardous Materials Specialist

1. Prior to the start of construction activities, a Hazardous Materials Specialist shall be retained for consultation on the following:
 - Soil sampling analysis shall occur prior to any construction that would result in excavation within impacted soil areas near the community room and building 12, or residential buildings 15 and 16. Inspection may use a portable, x-ray fluorescence analyzer to field screen work area(s) during construction. Work area soils also may be monitored based upon visual observations.
 - Soil sampling analysis shall occur if previously unidentified features of concern are encountered. These include USTs, sumps, clarifiers, former water supply wells or similar features of potential environmental concern.

If any of the above-listed material is found to contain lead, such materials shall be disposed of in accordance with applicable federal, state, and local regulations regarding worker safety and the safe removal and disposal of lead-impacted soil.

2. Excavation Dewatering

During construction, if groundwater is encountered or accumulates in any excavation(s) due to rainwater, the Hazardous Materials Specialist shall be notified, and such water shall be handled in accordance with the following protocols:

- For relatively small volumes of water, a temporary storage tank (frac tank) shall be utilized to hold such groundwater on a short-term basis while testing and disposal is arranged.
- If conditions require installation of a dewatering system or larger volume of groundwater requires handling, proper RWQCB permits shall be obtained. Required permit conditions shall be followed for discharge into the nearby existing sanitary sewer or stormwater system.

3. Soil Monitoring and Screening

During construction, the Hazardous Materials Specialist shall be notified by the General Contractor of the discovery of the below conditions and shall be on-site during the duration of construction activities to perform screening and possible sample collection:

- Discovery and removal of previously unidentified features of concern, such as USTs, sumps, clarifiers, former water supply wells or similar features of potential environmental concern.
- Areas of suspected contaminated soils as deemed appropriate by the Hazardous Materials Specialist or as reported by the General Contractor.

The General Contractor is responsible for notification to the applicant of suspected impacted soils or possible conditions of environmental concern. If a UST or other features are discovered, work shall be suspended in its immediate vicinity, and the applicant and Hazardous Materials Specialist will be notified. EHS will be notified of the proposed response actions. Should a UST be encountered, it shall be addressed under permit with the County.

4. Contaminated Soils Excavation Practices

During construction activities if soil is encountered that is suspected of being contaminated, earthwork in these suspect area(s) shall be stopped and worker access to the suspect area(s) shall be restricted. Areas shall be cordoned off, followed by notifying the Hazardous Materials Specialist. Soils suspected as being contaminated shall be evaluated through screening and/or analytical testing performed by a qualified professional tant so that appropriate handling and

disposal alternatives can be determined. Site development activities may result in a net export of soil. Such soil shall be properly characterized by a Hazardous Materials Specialist in accordance with applicable regulations prior to transportation from the site.

If on-site reuse of potentially contaminated soil is desired, soil samples shall be collected from such soil by the Hazardous Materials Specialist and analyzed by the Hazardous Materials Specialist for the contaminant of potential concern. If the contaminant is detected, whether above or below regulatory agency screening levels, further investigation of such soils may be performed by the Hazardous Materials Specialist. For soils considered for reuse, if the contaminant(s) is detected below the applicable ESL, reuse of the soil may be deemed appropriate, at the discretion of the applicant. If the contaminant is detected above the applicable ESL and soils are being considered for reuse on-site, the results and conditions shall be communicated to EHS for concurrence.

If soils are proposed to be hauled off-site, any impacted soils shall be profiled for proper disposal at landfill facilities under appropriate waste manifests. Prior to off-site disposal, additional soil samples may be collected and analyzed in accordance with the requirements of disposal facility(s). Soil suspected of being contaminated during excavation, shall be stockpiled or otherwise segregated from “clean” soil. Such soil shall be stockpiled on-site on top of and covered by an “impermeable” liner (e.g., 6-mil plastic sheeting) or other appropriate materials to reduce infiltration by rainwater and contamination of underlying soil while its disposition is being determined. Any such stockpiles shall be checked daily by the General Contractor to verify that they are adequately covered.

5. Excavation of Surplus Soil

During construction, if excavation of surplus soil is proposed, surplus soils generated during grading activities shall be profiled by the Hazardous Materials Specialist for acceptance at appropriate facilities. Criteria for acceptance (e.g., concentrations of specific contaminants, odors, additional analytical testing, etc.) shall be determined by the acceptance facility(s) as part of the acceptance process.

6. Imported Fill Best Practices

During construction, an evaluation of import fill materials shall be conducted by the Hazardous Materials Specialist and General Contractor to ensure such fill meets the geotechnical and environmental requirements for the proposed project. All selected sources of import fill shall have adequate documentation or certification to verify that the fill source is appropriate for the site. Documentation shall include detailed information on previous land use of the fill source, any Phase I ESAs performed and findings, and the results of any analytical testing performed.

If no documentation is available or the documentation is inadequate or if no analytical testing has been performed, samples of the potential fill material shall be collected and analyzed by the Hazardous Materials Specialist prior to delivery of such soil to the site. The Hazardous Materials Specialist shall provide guidance to the General Contractor regarding acceptability of imported fill. No fill material shall be accepted if contaminant levels exceed current residential environmental screening goals and/or regional background concentrations.

7. Notifications

During construction, notifications of the discovery of the contaminants in field screening, observations, or analytical results or other conditions of potential environmental concern shall be immediately made to the applicant, General Contractor, and Hazardous Materials Specialist. If analytical testing shows that the contaminant is above its applicable screening level, the

applicant and the General Contractor shall be notified. The discovery of any subsurface features shall be reported to the Hazardous Materials Specialist, followed by notifying the County Environmental Health Services. If such discovery or conditions require notification to another General Contractor or subcontractors, then such notification shall be made by the General Contractor.

8. Documentation

Upon completion of excavation and earthwork performed in accordance with the SMP, the Hazardous Materials Specialist shall prepare a report that includes a site map showing areas of excavation and import fill, sample locations, and tables summarizing data. The report shall include appendices with copies of permits, including any dewatering permits, manifests, or bills of lading for removed soil and/or groundwater, and laboratory reports for soil and water profiling not previously submitted. The certified final project report will be prepared for EHS and MidPen Housing Corporation.

After implementation of **MM-HAZ-1a** through **MM-HAZ-1e**, Impact HAZ-1 would be less than significant.

Impact HAZ-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? (Less than Significant with Mitigation)

There is potential for accidental release of hazardous materials that could be transported, used, and disposed of during project demolition and construction.

Elevated lead concentrations were found in soil at two locations in the Phase II investigation. The first location (Boring B-7) is located between the community building and residential building 12 in the inside northwest corner of the internal access road. The second location (Boring B-21) is located between residential buildings 15 and 16, in the southeast inside corner of the internal access road.

During the water well evaluation, six additional borings were drilled around the B-7 and B-21 locations. Results showed concentrations of lead that were below applicable RWQCB ESLs except for one of the six locations. Because of this outlier, a statistical analysis was performed to establish a representative site-wide background concentration for lead, as well as to evaluate its potential human health risk in shallow soils. The results of the statistical analysis show that the calculated 95% adjusted gamma upper confidence level for lead in shallow soils is 42.04 milligrams per kilogram, which is below its applicable RWQCB ESLs for both residential and construction worker scenarios, it is concluded that the lead concentrations in shallow soils across the Site do not pose a significant potential human health risk relative to the planned development. Given that the levels of lead in the soil are below all thresholds, the impact would be considered less than significant.

Project activities would include grading where the elevated lead levels were found. Soils in these areas would be mixed and further homogenized while further reducing lead levels and potential human health risks associated with shallow soils. No soil off-haul is proposed.

An SMP was developed to provide a framework for appropriately addressing potential environmental conditions, such as USTs or subsurface structures that may be encountered during future development activities. The SMP will provide information regarding site-specific conditions and previous investigation results, a summary of known and potential environmental conditions and Contaminants of potential concern, provisions for a site-specific HASP, as well as odor, storm water, and noise control plans for worker protection, guidelines for sampling and managing impacted or potential-impacted soils that may

be encountered (contingency plan), notification(s) to appropriate regulatory agencies, and documentation of environmental conditions encountered during site development.

Groundwater sampling was performed prior to well destruction. The depth of the groundwater was approximately 54 feet below the top of the well casing. Elevated concentrations of petroleum hydrocarbons like diesel and motor oil were encountered, in addition to VOCs. The concentrations of diesel and motor oil were attributed to the older submersible pump that had been left in the well for approximately 30 years. Submersible pumps are known to have seals, bearings, and oil-filled capacitors that contain petroleum-based greases, oil and lubricants, all of which can leak and fail over time.

One well was destroyed as part of earlier site remediation efforts. Groundwater encountered in the well had elevated levels of VOCs and diesel and motor oil, which were attributed to the older submersible pump that had been left in the well for approximately 30 years. Submersible pumps are known to have seals, bearings, and oil-filled capacitors that contain petroleum-based greases, oil, and lubricants, all of which can leak and fail over time.

None of the detected VOCs were found to exceed their applicable RWQCB ESLs except for naphthalene, which was found at a concentration (1.9 micrograms per liter) slightly above its RWQCB ESLs for direct exposure human health risk levels, including maximum contaminant level priority and human health risk based only levels. Because the well has been sealed and no on-site groundwater would be used for site construction and operation, the impact is considered less than significant.

The proposed project involves development of 16 affordable housing buildings and a community room. Infrastructure including an access road, utilities, and stormwater infrastructure. Hazardous materials used and stored on the project site would be limited to small amounts used in medical supplies, cleaning supplies and in fuels and fluids for vehicles and equipment. The project would not involve the use of underground storage tanks or other large-scale use or storage of hazardous materials that could result in their inadvertent release into the environment.

Mitigation measures **MM-HAZ-1a** through **MM-HAZ-1e** are recommended to be consistent with SMP recommendations.

Therefore, the impact related to the release of hazardous materials into the environment would be less than significant after implementation of **MM-HAZ-1a** through **MM-HAZ-1e**.

Impact HAZ-3: Would the project 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)

See Initial Study Section 9, Hazards and Hazardous Materials, for the project-specific and cumulative analysis related to this question.

Impact HAZ-4: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? (No Impact)

California Government Code Section 65962.5 requires various state agencies to compile lists of hazardous waste disposal facilities, unauthorized release from underground storage tanks, contaminated drinking water wells, and solid waste facilities from which there is known migration of hazardous waste, and to submit such information to the Secretary for Environmental Protection on at least an annual basis. In meeting the provisions in California Government Code Section 65962.5, commonly referred to as the

“Cortese List,” database resources such as the DTSC EnviroStor and SWRCB Geotracker databases provide information regarding identified facilities.

As of May 22, 2023, the project site is not listed on the SWRCB Geotracker¹⁹⁴ database or the DTSC Envirostor¹⁹⁵ database. These database reviews indicate that the proposed project is not located on a known hazardous materials site, and there is no impact.

Impact HAZ-5: Would a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? (Less than Significant)

See Initial Study Section 2.9, Hazards and Hazardous Materials, for the project-specific and cumulative analysis related to this question.

Impact HAZ-6: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (Less than Significant Impact)

More information is provided in EIR Section 3.12, Wildfire, including a discussion of emergency response plans. The San Mateo County EOP establishes policies and procedures and assigns responsibilities to ensure the effective management of emergency operations within the San Mateo County Operational Area.¹⁹⁶ The plan provides information on the county emergency management structure of how and when the Emergency Operations Center staff is activated.

Additionally, current programs SMC Alert¹⁹⁷ and Coastside FPD’s Community Connect¹⁹⁸ are initiatives used to contact residents during an urgent or emergency situation as well as provide relevant information about residences to aid emergency responders during incident response. Local plans, such as the LHMP and Connect the Coastside, further describe coordinated actions and recommendations to enhance emergency response; including identification of alternative evacuation routes and establishment as needed for wildfire and other hazards.

The project site is located within 300 feet from Fire Station 44, ensuring sufficient emergency response if necessary. The Coastside FPD’s response time goal is to respond within 6 minutes 59 seconds of receiving a call. In an email on May 11, 2023, the District Chief confirmed that response times are currently met throughout the district.¹⁹⁹

There is an extensive network of roads, both well-maintained dirt and major paved roads surrounding the project site. Main roads in this network include Highway 1, Carlos Street, Sierra Street, Stetson Street, Etheldore Street, California Avenue, and Airport Street. These roads can all support weight loads of fire apparatus and allow for site access from all directions. There are main arteries from the nearest communities and fire stations that provide direct emergency response services. The project site would improve access to the site and would not impair implementation or physically interfere with current

¹⁹⁴ SWRCB, 2023.

¹⁹⁵ DTSC, 2023.

¹⁹⁶ San Mateo County Sheriff’s Office, 2015.

¹⁹⁷ County of San Mateo. 2023. SMC Alert. Available at: <https://www.smcgov.org/ceo/smc-alert>. Accessed June 2023.

¹⁹⁸ Community Connect. 2023. Coastside Fire Protection District. Available at: <https://www.communityconnect.io/info/ca-coastside>. Accessed June 2023.

¹⁹⁹ Personal communication between Coastside Fire Department Chief and Erica Rippe, dated May 11, 2023.

adopted plans, including the San Mateo County EOP. The impact would be considered less than significant.

Impact HAZ-7: Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? (Less than Significant Impact)

See EIR Section 3.12, Wildfire, for the project-specific and cumulative analysis related to this question.

Impact HAZ-8: Place housing within an existing 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? (No Impact)

Most of the project site is located outside a FEMA flood hazard zone. A small portion of the site along the northern boundary lies within the flood hazard Zone X associated with Montara Creek; however, this area is outside of the proposed building footprints and any proposed development improvements. The water surface elevation in Montara Creek is approximately 100 feet below the portion of the site planned for development. No housing would be within an existing 100-year flood hazard area.

Impact HAZ-9: Place within an existing 100-year flood hazard area structures that would impede or redirect flood flows? (No Impact)

As stated in Impact HAZ-8, most of the project site is located outside a FEMA flood hazard zone. A small portion of the site along the northern boundary lies within the flood hazard Zone X associated with Montara Creek. However, the water surface elevation in Montara Creek is approximately 100 feet below the portion of the site planned for development. No project structures would be located within an existing 100-year flood hazard area.

Impact HAZ-10: Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? (Less than Significant)

The topography within the project site is generally flat and gently slopes westward toward the Pacific Ocean. Elevations within the project site range from approximately 95 to 205 feet above mean sea level. As stated above in Impacts HAZ-8 and HAZ-9, most of the project site is located outside a FEMA flood hazard zone. A small portion of the site along the northern boundary lies within the flood hazard Zone X associated with Montara Creek. However, the water surface elevation in Montara Creek is approximately 100 feet below the portion of the site planned for development. There are no large reservoirs in the project vicinity so the project would not be in an area subject to dam failure. The impact related to loss injury or death involving flooding by levee or dam, failure would be less than significant.

Impact HAZ-11: Inundation by seiche, tsunami, or mudflow? (Less Than Significant)

The project site is not within a tsunami hazard area, as shown on Figure 3.7-3 in EIR Section 3.7, Hydrology and Water Quality.²⁰⁰ The project site is located on a bluff at an elevation of between 95 feet amsl and 205 feet amsl. The bluffs and elevation in the project site protect development from damage by tsunamis. There are no large reservoirs in the project vicinity so the project would not be in an area subject to inundation hazards from seiche. The geology of the site is not susceptible to landslides or mudflow. Impacts related to these hazards and the risk of loss of life due to project inundation would be

²⁰⁰ California Geological Survey. 2021. California Tsunami Hazard Area Maps and Data. Available at: <https://www.conservation.ca.gov/cgs/tsunami/maps>. Accessed March 22, 2023.

less than significant. The impact related to loss injury or death involving flooding by seiche, tsunami, or mudflow would be less than significant.

3.6.6 Cumulative Impacts

Impact C-HAZ-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to hazards and hazardous materials? (Less than Significant Impact)

Certain hazards are largely site-specific, such as handling or transporting hazardous materials, and the magnitude of this risk would be dependent on the site-specific conditions present at each specific site. Regardless of the potential risk, each project would be required to implement handling and transportation mitigation based on existing laws and regulations. The project-specific handling and transporting of hazardous materials are not significantly adding to existing impacts from the routine use and transport of hazardous materials and would not have a cumulative significant impact on the environment. The project does not have any significant impacts relating to adopted emergency response/evacuation plans, flood hazards, or inundation. There would be no cumulative impacts relating to these hazards and the impact is not cumulatively considerable.

3.7 HYDROLOGY AND WATER QUALITY

This section provides the hydrologic setting and potential impacts on water quality from the construction and operation of the project. The analysis in this section is based on the following:

- Cypress Point Hydromodification Management Memorandum. BKF Engineers. May 2, 2018²⁰¹
- Hydromodification Management (HM) Applicability Worksheet for Carlos and Sierra Street, Moss Beach. San Mateo Countywide Water Pollution Prevention Program. Revisions June 21, 2022.²⁰²
- Draft Site Management Plan, AEI Consultants. March 2, 2016²⁰³ (Appendix J)

3.7.1 Existing Conditions

3.7.1.1 Climate

San Mateo County has a Mediterranean climate characterized by cool wet winters, with an average of 29.6 inches of rain per year, and relatively warmer dry summers with coastal fog. The temperature typically varies from 44 degrees Fahrenheit (°F) to 66°F and is rarely below 38°F or above 75°F.^{204, 205}

3.7.1.2 Surface Water

The project site is located in San Mateo County, on a peninsula between the Pacific Ocean and San Francisco Bay in the San Francisco Bay Hydrologic Region. Its dominant feature is the San Francisco Bay Estuary, which covers 1,100 square miles and conveys the waters of the Sacramento and San Joaquin Rivers to the Pacific Ocean.²⁰⁶ Water on the eastern side of the Santa Cruz Mountains drains to the San Francisco Bay, while water on the western side drains to the Pacific Ocean. The Pacific Ocean is located approximately 750 feet west of the project site.

The project site is located in the drainage area for the James V. Fitzgerald Area of Special Biological Significance (Fitzgerald ASBS). This drainage area extends from 4th Street in Montara to the north to the Pillar Point breakwater in the south and includes a 5.5-mile band of shoreline (Figure 3.7-1). The James V. Fitzgerald Marine Reserve is located within the boundary of the Fitzgerald ASBS and is a marine protected area. The watershed draining into the Fitzgerald ASBS is a 4.5-square-mile area of unincorporated communities consisting of Montara, Moss Beach, rural areas of Montara and Moss Beach along and north of San Vicente Creek, Seal Cove, and Pillar Point Bluff. Montara Creek is within the Fitzgerald ASBS watershed boundary.

²⁰¹ BKF Engineers. 2018. Cypress Point Hydromodification Management (HM) – Revision 2. Memorandum to MidPen Housing Corp. BKF Engineers.

²⁰² BKF Engineers. 2022. Hydromodification Management (HM) Applicability Worksheet for Carlos and Sierra Street, Moss Beach. Prepared for MP Moss Beach Associates, LP. BKF Engineers. June 21.

²⁰³ AEI Consultants. 2016. Site Management Plan. AEI Project No. 350428. Prepared for MidPen Housing Corporation. AEI Consultants.

²⁰⁴ Weatherspark.com. 2023. Average Weather Year Round in Moss Beach. Available at: <https://weatherspark.com/y/536/Average-Weather-in-Moss-Beach-California-United-States-Year-Round>. Accessed March 20, 2023.

²⁰⁵ Dwellics. 2023. Climate in Moss Beach, California. Available at: <https://dwellics.com/california/climate-in-moss-beach>. Accessed March 20, 2023.

²⁰⁶ San Francisco Bay Regional Water Quality Control Board. 2019. *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*. Available at: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/docs/BP_all_chapters.pdf. Accessed March 22, 2023.

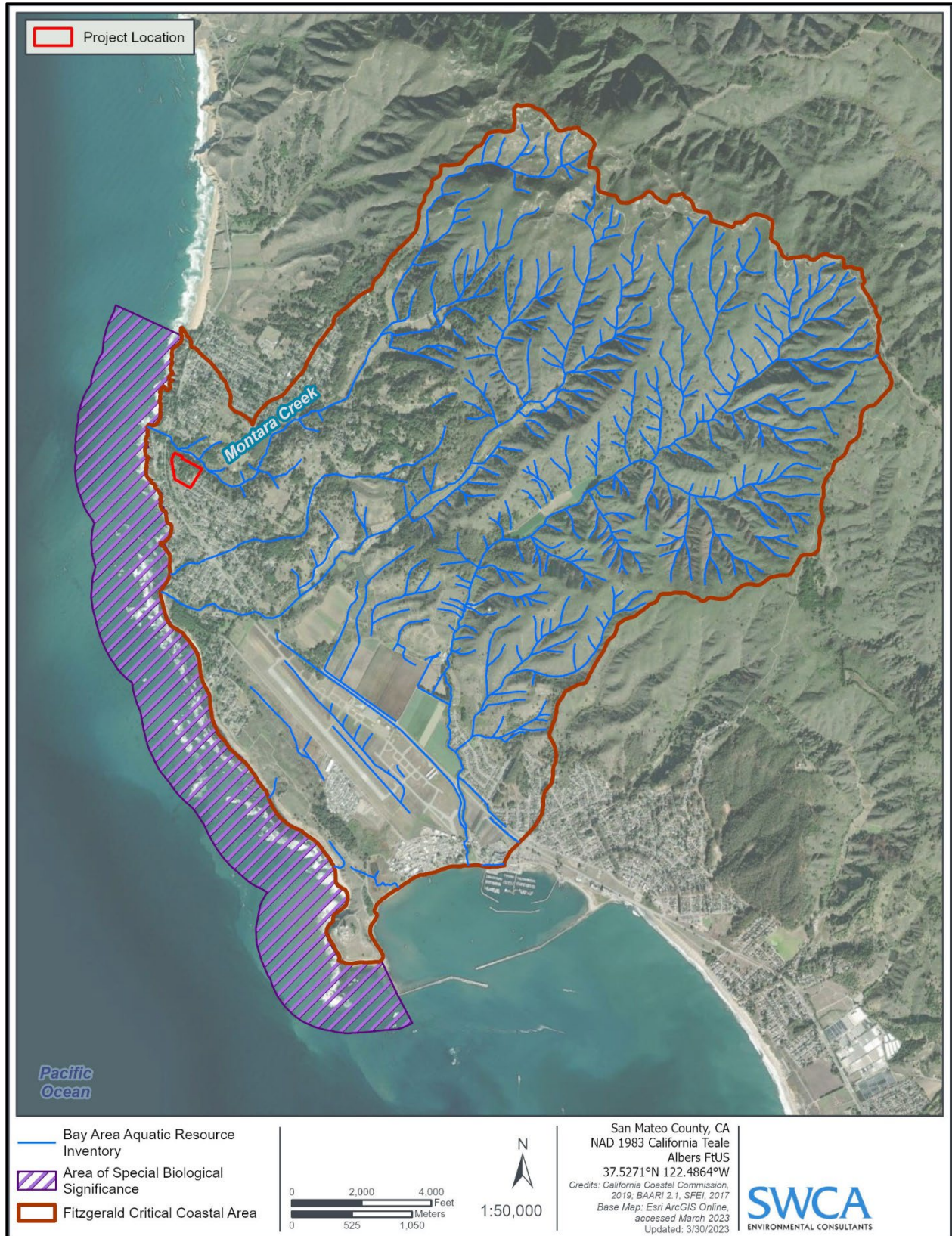


Figure 3.7-1. Fitzgerald Area of Special Biological Significance watershed.

3.7.1.3 Surface Water Quality

Existing sources of pollutants may include both point and nonpoint sources. Point sources, those discharging from discrete points, are subject to prohibitions by regulatory agencies, water quality requirements, periodic monitoring, annual reporting, and other requirements designed to protect the overall water quality. Nonpoint pollutant sources are sources that do not have a single, identifiable discharge point but are a combination of many sources. Rain carries pollutants and sediments from various parts of a watershed into surface water bodies such as storm drains, streams, rivers, reservoirs, and marshes during periods of wet weather.

Stormwater runoff from the project site drains from Montara Creek (see Figure 3.7-1) to the Fitzgerald ASBS approximately 0.85 mile north of the James V. Fitzgerald Marine Reserve. Montara Creek and San Vicente Creek are on the Clean Water Act (CWA) Section 303(d) list of impaired water bodies.²⁰⁷ Stormwater runoff carries a variety of pollutants from vehicles, roadways, agriculture-related contaminants, and other urban pollutants. Montara Creek drains a mixed-use watershed and is periodically posted for high bacteria levels.

Urban runoff can contribute pollutants to Montara Creek, the Fitzgerald ASBS, and the Pacific Ocean. Pollutants of concern typically found in urban runoff include sediments, nutrients, pathogens, plant debris, animal wastes, petroleum hydrocarbons, heavy metals, toxic pollutants, litter, and yard wastes. Urban runoff includes sediment and other pollutants discharging from construction sites due to improper erosion control measures. Pesticide and herbicide application to landscaping and agriculture also contribute significantly to nutrient loading in surface waters. The *Water Quality Control Plan, San Francisco Bay Basin* (Basin Plan) has established beneficial uses for both surface water and groundwater in the basin.²⁰⁸

3.7.1.4 Site Drainage

The project site is located within hillside terrain along the northwest flank of the northwest-trending Santa Cruz Mountain Range within the Coast Ranges. Ground surface elevation within the project site ranges from approximately 95 feet along the northern edge of the site to about 205 feet along the eastern edge. The site slopes up gently to moderately to the east-northeast except for a north-facing slope along the northern boundary of the project site, which slopes moderately down to the north, and some localized flat areas near the center and eastern portions of the site. There are no water features on the project site. The steeply sloped wooded area approximately 250 feet to the north leads to a ravine containing Montara Creek, which flows west to the Pacific Ocean.

Stormwater runoff is assumed to percolate onsite and excess runoff flows northwest toward Carlos Street and 16th Street, ultimately discharging to Montara Creek. Besides the approximately 11-acre project site, an additional 1 acre of off-site runoff drains through the project site and contributes to the overall tributary drainage area.

3.7.1.5 Flooding and Tsunami

The majority of the project site is not in a Federal Emergency Management Agency (FEMA) flood hazard zone, as shown on Flood Insurance Rate Map 060311-0117. A small portion of the site along the northern boundary lies within the flood hazard Zone X associated with Montara Creek. Zone X identifies areas of

²⁰⁷ State Water Resources Control Board. 2023. *Final Integrated Report (CWA Section 303(d) List/305(b) Report, Appendix D)*. Available at: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report.html. Accessed March 22, 2023.

²⁰⁸ San Francisco Bay Regional Water Quality Control Board, 2019.

0.2% annual flood hazard (once every 500 years) or areas of 1% annual flood hazard (once every 100 years) with average depths of less than 1 foot or with drainage areas less than 1 square mile (Figure 3.7-2).

The project site is not located in a tsunami hazard area (Figure 3.7-3).²⁰⁹ The project site is located on a bluff at an elevation between 95 feet above mean sea level (amsl) and 205 feet amsl. The bluffs and elevation in the project site protect the development from damage by tsunamis.

3.7.1.6 Groundwater

As discussed further in Section 3.7.2.2, the California State Legislature approved a groundwater management law in 2015 known as the Sustainable Groundwater Management Act (SGMA), to be overseen and managed by the California Department of Water Resources (DWR). There are nine groundwater basins with boundaries—either partial or whole—within San Mateo County (Figure 3.7-4).²¹⁰

The project site is located in the Half Moon Bay Terrace Groundwater Basin, which has a surface area of 14 square miles.²¹¹ It is primarily within the Upper Moss Beach groundwater subbasin, although a small portion of the site encroaches into the Lower Montara Creek subbasin.²¹² The Half Moon Bay Terrace Groundwater Basin is currently designated as a very low-priority basin.

For areas of higher elevation within the Half Moon Bay Terrace Groundwater Basin, direct precipitation is largely responsible for groundwater recharge, whereas for the lower elevation areas most recharge occurs locally from streams. Local recharge within the Upper Moss Beach groundwater subbasin is provided mainly by storms. According to studies, enhancing recharge from rainfall would benefit groundwater supplies in this subbasin. Lower Montara Creek is incised to bedrock, thereby limiting aquifer recharge from this reach of the stream.^{213, 214} There are no municipal groundwater wells in the vicinity of the project site.²¹⁵ According to a report prepared by DWR, groundwater in the northern part of the Half Moon Bay Terrace Groundwater Basin is high in iron and manganese. Total dissolved solids range from 160 to 440 mg/L.²¹⁶

As noted in Section 3.6, Hazards and Hazardous Materials, two domestic water supply wells were installed on the project site and the permits were granted to the California School Employee Association in 1986.²¹⁷ Both wells were abandoned at an undetermined date. A Water Well Sampling and Well Destruction Memorandum was drafted on April 9, 2018. The discussion can be found in Section 3.6, Hazards and Hazardous Materials.

²⁰⁹ California Geological Survey. 2021. California Tsunami Hazard Area Maps and Data. Available at: <https://www.conservation.ca.gov/cgs/tsunami/maps>. Accessed March 22, 2023.

²¹⁰ County of San Mateo Office of Sustainability. 2023. Groundwater. Available at: <https://www.smcsustainability.org/water/groundwater/>. Accessed April 22, 2023.

²¹¹ DWR. 2014. Half Moon Bay Terrace Groundwater Basin. California's Groundwater Bulletin 118. Available at: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/2003-Basin-Descriptions/2_022_HalfMoonBayTerrace.pdf. Accessed March 22, 2023.

²¹² Balance Hydrologics. 2010. *Midcoast Groundwater Study Phase III, San Mateo County, California*. Available at: <http://sanmateord.org/links/209093%20Midcoast%20GW%20Phase%20III%206-9-10.pdf>. Accessed March 21, 2023.

²¹³ DWR, 2014.

²¹⁴ Balance Hydrologics, 2010.

²¹⁵ Montara Water and Sanitary District. 2017. 2017 Water System Master Plan. Prepared by SRT Consultants. Available at: https://mwsd.montara.org/assets/uploads/documents/MWSD_2017%20Master%20Plan%20Update_Rev17_082417_Full.pdf. Accessed May 24, 2023.

²¹⁶ DWR, 2014.

²¹⁷ AEI Consultants. 2015. *Phase I Environmental Site Assessment*. AEI Consultants. (Appendix H)

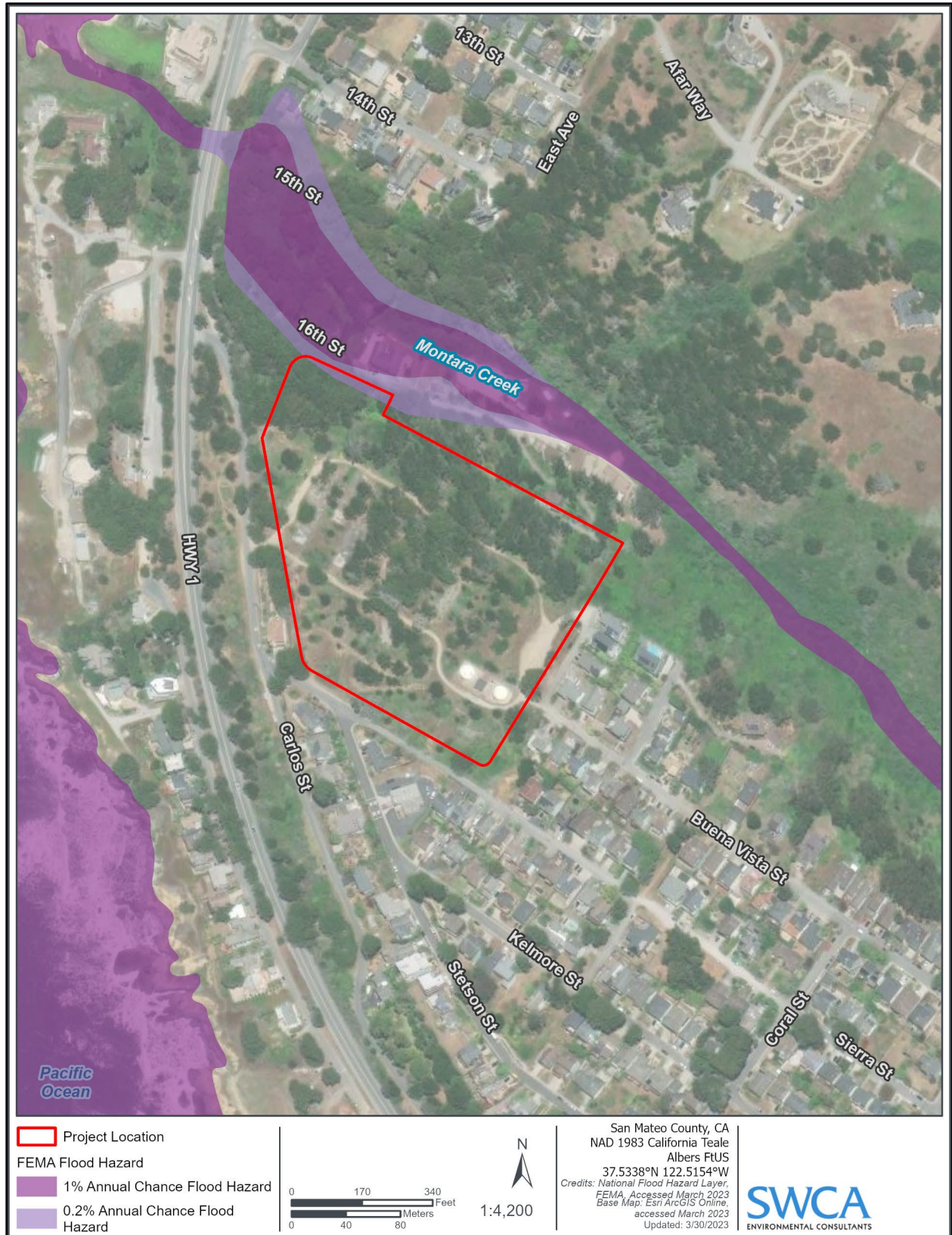


Figure 3.7-2. FEMA flood hazard zone.

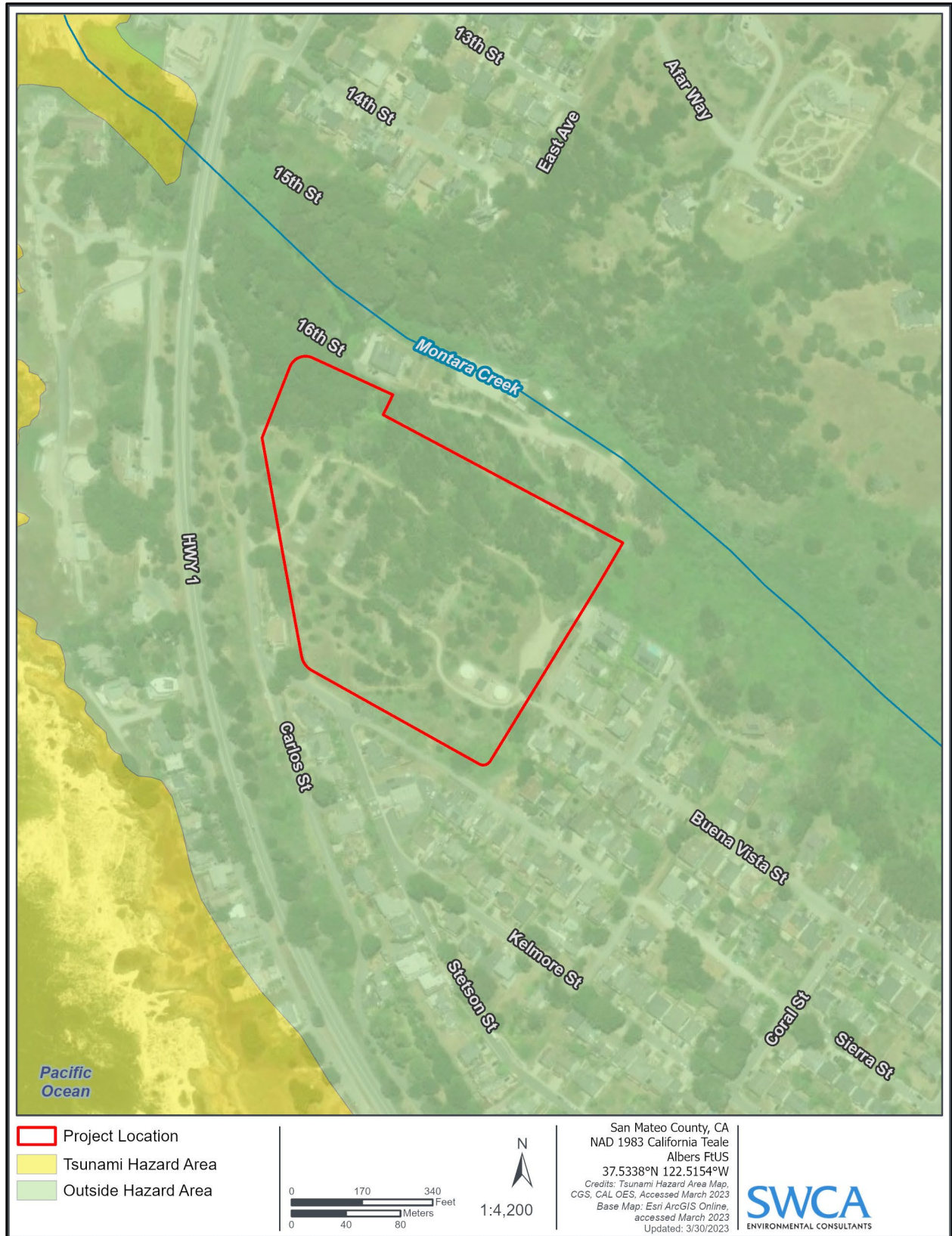


Figure 3.7-3. Tsunami hazard area.

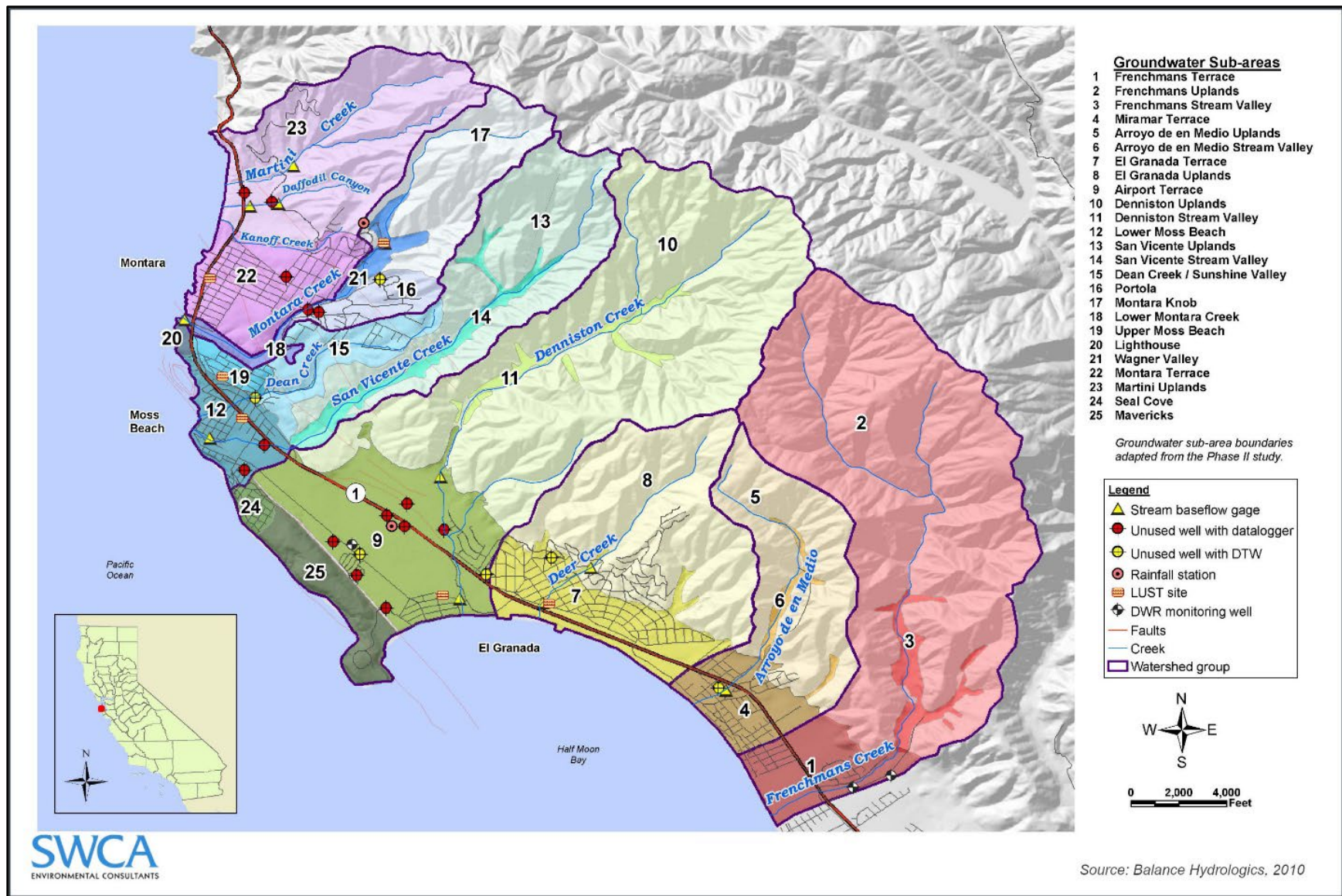


Figure 3.7-4. Groundwater basins in the project vicinity.

3.7.1.7 Dam Inundation

The project site is located outside of a dam inundation zone.²¹⁸

3.7.2 Regulatory Setting

3.7.2.1 Federal

3.7.2.1.1 FEDERAL CLEAN WATER ACT, 33 USC 1251 ET SEQ. (1977)

The Clean Water Act (CWA) (33 United States Code [USC] 1251 et seq.), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality. The objective of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” Numerous agencies have responsibilities for administration and enforcement of the CWA. At the federal level this includes the U.S. Environmental Protection Agency (USEPA), the U.S. Army Corps of Engineers (USACE), the Bureau of Reclamation, and the major federal land management agencies such as the U.S. Forest Service and the Bureau of Land Management. At the state level, Tribal lands, the California Environmental Protection Agency and its sub-agencies, including the State Water Resources Control Board (SWRCB), have been delegated primary responsibility for administering and enforcing the CWA.

Important sections of the act are as follows:

- **CWA Sections 303 and 304** provide for water quality standards, criteria, and guidelines. Under Section 303(d) of the CWA, the State of California is required to present the EPA with a list of impaired water bodies that do not meet water quality standards and objectives. California is required to establish a total maximum daily load (TMDL) for each pollutant/stressor. An essential component of a TMDL is the calculation of the maximum amount of a pollutant that a waterbody can receive while still meeting water quality standards. Based on the TMDL, the state allocates a loading capacity among the various point and nonpoint sources that discharge into the impaired waterbody. Permits for point sources are issued through the EPA’s National Pollutant Discharge Elimination System (NPDES) program, as discussed below.
- **CWA Section 401 (Water Quality Certification)** requires an applicant for any federal permit that proposes an activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the CWA. The project site does not contain any aquatic resources which are anticipated to meet the criteria of waters of the state regulated under the Porter-Cologne Water Quality Control Act and/or Section 401 of the CWA.
- **CWA Section 402** establishes the NPDES program, a permitting system for the discharge of pollutants through a point source into waters of the U.S. Whereas the federal NPDES program mostly pertains to point source control, the current focus and regulation are shifting to nonpoint source pollution control under the authority of the RWQCBs. The NPDES program regulates the discharge of pollutants from municipal and industrial wastewater treatment plants and sewer collection systems, as well as stormwater discharges from industrial facilities, municipalities, and construction sites. In California, implementation and enforcement of the NPDES program are conducted through the State Water Resources Control Board SWRCB and the nine Regional

²¹⁸ County of San Mateo Planning and Building Department. 2005. San Mateo County Hazards: Dam Failure Inundation Areas. Available at: <https://www.smcgov.org/planning/san-mateo-county-hazards-dam-failure-inundation-areas>. Accessed May 24, 2023.

Water Quality Control Boards (RWQCBs). The RWQCBs set standard conditions for each permittee in their region, which includes effluent limitations and monitoring programs. The proposed project would be subject to NPDES permits as described under the State regulatory framework, below.

- **CWA Section 404** establishes a permit program for the discharge of dredged or fill material into waters of the U.S. This permit program is jointly administered by the USACE and the EPA.

3.7.2.1.2 NATIONAL FLOOD INSURANCE PROGRAM

FEMA is responsible for determining flood elevations and floodplain boundaries based on USACE studies. FEMA is also responsible for distributing the flood insurance rate maps used in the National Flood Insurance Program (Title 42 USC Chapter 50, Section 4102). These maps identify the locations of special flood hazard areas, including 100-year floodplains. FEMA allows non-residential development in the floodplain; however, FEMA has criteria to “constrict the development of land which is exposed to flood damage where appropriate” and “guide the development of proposed construction away from locations which are threatened by flood hazards.” Federal regulations governing development in a floodplain are set forth in Title 44 Code of Federal Regulations Part 60, enabling FEMA to require municipalities that participate in the National Flood Insurance Program to adopt certain flood hazard reduction standards for construction and development in 100-year floodplains.

3.7.2.2 State

3.7.2.2.1 CALIFORNIA DEPARTMENT OF WATER RESOURCES

The DWR is the state agency that studies, constructs, and operates regional-scale flood protection systems, in partnership with federal and local agencies. DWR also provides technical, financial, and emergency response assistance to local agencies related to flooding.

Several bills were signed by Governor Schwarzenegger in 2007, adding to and amending state flood and land use management laws. The laws contain requirements and considerations that outline a comprehensive approach to improving flood management at the state and local levels.

FloodSAFE California is a strategic multifaceted program initiated by DWR in 2006. FloodSAFE guides the development of regional flood management plans, which encourage regional cooperation in identifying and addressing flood hazards. Regional flood plans include flood hazard identification, risk analyses, review of existing measures, and identification of potential projects and funding strategies. The plans emphasize multiple objectives, system resiliency, and compatibility with state goals and integrated regional water management plans. DWR has the lead role to implement FloodSAFE and will work closely with state, federal, Tribal, and local partners to help improve integrated flood management systems statewide. DWR’s role is to advise and assist local jurisdictions as they pursue compliance.

3.7.2.2.2 PORTER-COLOGNE WATER QUALITY CONTROL ACT (CALIFORNIA WATER CODE, DIVISION 7)

The SWRCB administers water rights, water pollution control, and water quality functions for the state as part of the California Environmental Protection Agency. The RWQCBs conduct planning, permitting, and enforcement activities and share authority for the implementation of the Federal Clean Water Act and the State Porter-Cologne Act with the SWRCB. Under this State law, the SWRCB has authority over State waters and water quality. “Waters of the state” are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (Water Code Section 13050[e]). This definition differs from the CWA definition of waters of the U.S. by its inclusion of groundwater and

waters outside the ordinary high-water mark. Examples include, but are not limited to, rivers, streams, lakes, bays, marshes, mudflats, unvegetated and seasonally ponded areas, drainage swales, sloughs, wet meadows, natural ponds, vernal pools, diked baylands, seasonal wetlands, and riparian woodlands. RWQCBs have local and regional authority. The San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) has authority in the project site. RWQCBs prepare and periodically update Basin Plans, which establish:

- Beneficial uses of water designated for each protected water body
- Water quality standards for both surface water and groundwater
- Actions necessary to maintain these water quality standards

Projects that discharge waste to waters of the State must file a report of waste discharge with the appropriate RWQCB if the discharge could affect the quality of waters of the State (California Water Code, Article 4, Section 13260). The RWQCB will issue waste discharge requirements or a waiver of the waste discharge requirements for the project. The requirements will implement any relevant water quality control plans that have been adopted and must take into consideration the beneficial uses to be protected and the water quality objectives reasonably required for that purpose (Article 4, Section 13263).

Waters of the State are defined by the Porter-Cologne Water Quality Control Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The State Water Resources Control Board protects all waters in its regulatory scope, but it has special responsibility for isolated wetlands and headwaters. These water bodies have high resource value, are vulnerable to filling, and may not be regulated by other programs, such as Section 404 of the CWA. Waters of the State are regulated by the RWQCBs under the State Water Quality Certification Program, which regulates discharges of dredged and fill material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact waters of the State are required to comply with the terms of the Water Quality Certification Program. If a proposed project does not require a federal license or permit but does involve activities that may result in impacts to beneficial uses or a discharge of harmful substances to waters of the State, the RWQCBs have the option to regulate such activities under state authority in the form of Waste Discharge Requirements or Certification of Waste Discharge Requirements.

3.7.2.2.3 WATER QUALITY CONTROL PLAN FOR THE SAN FRANCISCO BAY REGION

The MRP prohibits most non-stormwater discharges and specifies actions necessary to reduce the discharge of pollutants in stormwater to the maximum extent practicable. Non-structural BMPs required by the MRP include public education and outreach. BMPs related to municipal operations require inspections of businesses and construction sites to ensure proper implementation of stormwater BMPs, investigation and abatement of illicit discharges, and associated reporting to the SFBRWQCB. Structural BMPs include post-construction stormwater management at development sites consisting of site design measures, source control measures, LID design standards, and hydromodification management measures. The MRP also requires non-structural and/or structural BMPs to address certain water quality pollutants of concern (e.g., pesticides and trash).

The SFBRWQCB regulates surface water and groundwater quality in the region. The area under SFBRWQCB’s jurisdiction consists of all the San Francisco Bay segments extending to the mouth of the Sacramento-San Joaquin Delta (Winter Island near Pittsburg) as well the Pacific Ocean along the Marin, San Francisco, and San Mateo coasts. The Basin Plan presents the beneficial uses that the SFBRWQCB

has specifically designated for local aquifers, streams, marshes, and rivers, as well as the water quality objectives and criteria that must be met to protect these uses.²¹⁹

Runoff water quality is regulated by the NPDES program (established through the CWA, as described above). The objective of the NPDES program is to control and reduce pollutant discharge to bodies of water. The SWRCB recently adopted a statewide policy on compliance schedules in NPDES permits that would require a discharger seeking a compliance schedule to provide documentation for the following:²²⁰

- Diligent efforts made to quantify pollutant levels in the discharge and the sources of the pollutant in the waste stream, and the results of those efforts
- Source control efforts that are currently underway or completed
- A proposed schedule for additional source control measures or waste treatment
- Data demonstrating current treatment facility performance
- The highest discharge quality that can reasonably be achieved until final compliance is attained
- A proposed schedule that is as short as practicable
- Additional information and analyses as determined by the SWRCB on a case-by-case basis.

Under the NPDES permit, construction projects must develop an Erosion and Sediment Control Plan (ESCP) and have it approved by the local land agency prior to the issuance of grading or building permits. The ESCP must include BMPs necessary to delineate areas of work, prevent erosion of unstable or denuded areas, plan for construction staging and storage logistics, construct stabilized access points, and include proper containment measures for construction materials and waste.

Projects disturbing more than 1 acre of land during construction are also required to file a Notice of Intent with the RWQCB to be covered under the State NPDES General Construction Permit for discharges of stormwater associated with construction activity. A SWPPP must be developed and implemented for each site covered by the general permit and must include BMPs that would reduce impacts to surface water quality.

The project site is in the hydromodification control area designated by the RWQCB in the Municipal Regional Stormwater NPDES Permit Order R2-2022-0018. The Municipal Regional Stormwater Permit (MRP)

establishes hydromodification management requirements within the C.3 provisions for water quality and quantity control contained in NPDES Municipal Stormwater Permit. The map of hydromodification control areas is provided in Appendix H of the C.3 Technical Guide.²²¹ According to the provisions, new developments in the control area that create more than 1 acre of impervious area are required to meet these standards. Although the permit states that areas discharging to engineered channels or structures can be exempted from hydromodification requirements, that exemption would not apply because there are natural channels both on-site and downstream of the project site. The C.3 requirements and

²¹⁹ San Francisco Bay Regional Water Quality Control Board, 2019.

²²⁰ State Water Resources Control Board. 2008. Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits. Resolution No. 2008-0025. Available at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2008/rs2008_0025.pdf. Accessed March 22, 2023.

²²¹ San Mateo City/County Association of Governments. 2020. C.3 Stormwater Technical Guidance. Available at: https://flowstobay.org/wp-content/uploads/2020/04/SMCWPPP-C.3-Regulated-Project-Guide-Appendix_H.pdf. Accessed March 22, 2023.

hydromodification areas are subject to change based on current NPDES standards at the time building permits are submitted for consideration.

3.7.2.2.4 SUSTAINABLE GROUNDWATER MANAGEMENT ACT

The SGMA is a package of three bills (Assembly Bill 1739, Senate Bill 1168, and Senate Bill 1319) that provides local agencies with a framework for managing groundwater basins in a sustainable manner. The SGMA establishes standards for sustainable groundwater management, roles and responsibilities for local agencies that manage groundwater resources, and priorities and timelines to achieve sustainable groundwater management. Central to the SGMA is the identification of critically over-drafted basins, prioritization of groundwater basins, establishment of groundwater sustainability agencies, and preparation and implementation of groundwater sustainability plans (GSPs) for medium-priority, high-priority, and critically over-drafted basins. GSP objectives require that future groundwater use does not cause undesirable results, which include the following: declining water levels, reduction of groundwater storage, seawater intrusion, degraded water quality, land subsidence, and depletion of interconnected surface water. One requirement of a GSP is to establish a monitoring network to track water level changes and groundwater storage and to monitor pre-determined water level thresholds within each basin. Water level data for these basins will be available to the public through online portals. At the state level, DWR has the primary role in the implementation, administration, and oversight of the SGMA, with the SWRCB stepping in should a local agency be found to not be managing groundwater in a sustainable manner.

The Half Moon Bay Terrace Groundwater Basin is currently designated as a very low-priority basin and is not subject to the SGMA, nor is it required to form a Groundwater Sustainability Agency, or implement a GSP.²²²

3.7.2.2.5 CALIFORNIA OCEAN PLAN (1972)

The SWRCB adopted the California Ocean Plan (Ocean Plan) on July 6, 1972; the latest revisions were adopted in 2009. Unless an exception is granted, the Ocean Plan prohibits the discharge of waste, including stormwater runoff, to designated ASBSs. ASBSs are designated by the SWRCB as ocean areas requiring the protection of species or biological communities to the extent that alteration of natural water quality is undesirable.²²³

In 2012, the Ocean Plan authorized the SWRCB to grant an exception to the Ocean Plan provisions prohibiting waste discharge to ASBS when the SWRCB determines that the exception will not compromise protection of ocean waters for beneficial uses and where the public interest will be served. San Mateo County was included in the Water Board's General Exception (State Water Board Resolution No. 2012-0012, as amended by 2012-0031) to the California Ocean Plan with Special Protections adopted on March 20, 2012.²²⁴ The prohibitions and special conditions contained in the Special Protections are intended to ensure that stormwater and nonpoint source discharges are controlled to protect the beneficial uses of the affected ASBS, including marine aquatic life and habitat, and to maintain natural water quality within the ASBS.²²⁵

²²² County of San Mateo Office of Sustainability, 2023.

²²³ State Water Resources Control Board. 2009. *California Ocean Plan*. Available at: <https://www.smcgov.org/media/73411/download?inline=>. Accessed March 21, 2023.

²²⁴ County of San Mateo. 2014. *James V. Fitzgerald Area of Special Biological Significance (ASBS) Draft Compliance Plan*. Prepared by EOA, Inc. Available at: https://www.waterboards.ca.gov/water_issues/programs/ocean/docs/asbs_general_exception/mateo_dep_04302015.pdf. Accessed March 21, 2023.

²²⁵ County of San Mateo. 2014. *James V. Fitzgerald Area of Special Biological Significance (ASBS) Draft Compliance Plan*.

3.7.2.3 Local

3.7.2.3.1 SAN MATEO COUNTYWIDE WATER POLLUTION PREVENTION PROGRAM

The San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) is a partnership of the City/County Association of Governments (C/CAG), each incorporated city and town in San Mateo County, and the County of San Mateo (County), which share a common NPDES permit.²²⁶ The Municipal Regional Stormwater NPDES Permit (NPDES Permit No. CAS612008) was issued by the SFBRWQCB (Order R2-2022-0018)²²⁷ in compliance with the Basin Plan and the NPDES program. As outlined in Provision C.3 of the MRP, participating agencies (including the County) must ensure that new development and redevelopment mitigate, to the maximum extent practicable, water quality impacts to stormwater runoff during the construction and operation periods of projects. The SMCWPPP published the C.3 Regulated Projects Guide and the Green Infrastructure Design Guide (GI Design Guide) to provide guidance on design, construction, and maintenance for projects.^{228, 229}

Provision C.3.b of the MRP defines all new development and redevelopment projects that must comply with Provisions C.3.c. and C.3.d. New development projects that create and/or replace 5,000 or more square feet of impervious surface are C.3 Regulated Projects. Under Provision C.3.c, regulated projects must implement Low Impact Development (LID) treatment measures to control stormwater. LID measures consist of evapotranspiration, infiltration, rainwater harvesting and use, and/or biotreatment of the amount of stormwater runoff specified in MRP Provision C.3.d. Provision C.3.d provides sizing criteria for stormwater treatment systems.²³⁰

3.7.2.3.2 COUNTY OF SAN MATEO GREEN INFRASTRUCTURE GUIDE

The GI Design Guide compendium document was developed in parallel to the updated C.3 Regulated Projects Guide. Together these documents are referred to as the SMCWPPP GreenSuite and are intended to provide complete guidance and useful resources for C.3-regulated projects, as well as other non-regulated green infrastructure and LID projects. The GI Design Guide provides additional design guidance and inspiration for a number of green infrastructure facility types and project settings, including streets, buildings, and lots. The GI Design Guide also provides additional considerations for design construction, implementation, and operation and maintenance of green infrastructure facilities. The appendices of the GI Design Guide include templates for maintenance activities and additional resources for local agencies, designers, and builders.

3.7.2.3.3 COUNTY OF SAN MATEO LOCAL COASTAL PROGRAM

The Local Coastal Program (LCP) is the County's guiding document for implementation of the State Coastal Act administered by the California Coastal Commission. With information and policies pertaining

²²⁶ County of San Mateo. 2023a. Stormwater Treatment Requirements. Available at: <https://www.smcgov.org/planning/stormwater-treatment-requirements>. Accessed March 21, 2023.

²²⁷ San Francisco Bay Regional Water Quality Control Board. 2022. Municipal Regional Stormwater NPDES Permit. Order No. R2-2022-0018. NPDES Permit No. CAS612008. Available at: https://www.waterboards.ca.gov/rwqcb2/water_issues/programs/stormwater/MRP/mrp5-22/R2-2022-0018.pdf. Accessed March 22, 2022.

²²⁸ San Mateo Countywide Stormwater Pollution Prevention Program. 2020. *C.3 Regulated Projects Guide*. Available at: https://www.flowstobay.org/wp-content/uploads/2020/03/SMCWPPP-C.3-Regulated-Project-Guide-High-Res_021220_0.pdf. Accessed March 21, 2023.

²²⁹ San Mateo Countywide Stormwater Pollution Prevention Program. 2020. *Green Infrastructure Design Guide*. Available at: <https://www.flowstobay.org/wp-content/uploads/2020/03/GIDG-2nd-Edition-2020-03kh-RED.pdf>. Accessed March 21, 2023.

²³⁰ San Francisco Bay Regional Water Quality Control Board, 2022.

to issues such as buildout and development, water supply capacity, wastewater treatment capacity, recreation, impervious surface zoning standards, nonpoint surface runoff controls, and sensitive species and habitat protection, the LCP governs land development in the unincorporated coastal area of San Mateo County. All development in the Coastal Zone must either comply with the policies and ordinances of the LCP in order to be issued a coastal development permit or be granted an exemption from the requirements. The County Planning and Building Department (Planning Department) released an updated LCP on June 18, 2013.

The updated LCP includes policy recommendations from the Midcoast LCP Update Project. The Midcoast project area encompasses the Fitzgerald ASBS watershed and includes policies and amendments such as a limitation on private well development in urban areas, avoidance of development in areas that are susceptible to erosion (e.g., bluff edges and faces), and establishment of minimum stormwater BMPs.

3.7.2.3.4 COUNTY OF SAN MATEO GENERAL PLAN

The *Vegetative, Water, Fish and Wildlife Resources Policies*²³¹ establish goals, policies, and implementation measures for the conservation and protection of important natural resources such as water quality.

- **Goal 1.1:** The County will conserve, enhance, protect, maintain, and manage vegetative, water, fish, and wildlife resources by promoting the conservation, enhancement, protection, maintenance, and managed use of the County's vegetative, water, fish, and wildlife resources.
 - **Policy 1.26: Protect Water Resources.** Ensure that development will: (1) minimize the alteration of natural water bodies, (2) maintain adequate stream flows and water quality for vegetative, fish, and wildlife habitats; (3) maintain and improve, if possible, the quality of groundwater basins and recharge areas; and (4) prevent to the greatest extent possible the depletion of groundwater resources.

The *Water Supply Policies*²³² establish goals, policies, and implementation measures for the conservation and protection of important natural resources such as water supply

- **Policy 10.8 Water Systems for Coastal Areas**
 - Support efforts to provide adequate water systems for the Mid-Coast, rural service centers, and other unincorporated urban areas.
- **Policy 10.18 Aquifer Studies and Management**
 - a. Support and cooperate in studies leading to a more thorough understanding of the groundwater aquifers, their location, quality, safe yield, and migration patterns. Formulate and carry out a management program that would ensure the long-term viability of aquifers for beneficial use.
 - b. Regulate, to the extent not in conflict with State law, the extraction of groundwater from aquifers in order to protect the safe yield and prevent overdrafting and saltwater intrusion.
 - c. Discourage activities and operations that would pollute groundwater supplies. Encourage the cleanup and restoration of polluted aquifers.

²³¹ County of San Mateo. 1986. General Plan. Available at: <https://www.smcgov.org/planning/general-plan>. Accessed May 15, 2023.

²³² County of San Mateo. 1986.

- **Policy 10.25 Efficient Water Use**
 - a. Encourage the efficient use of water supplies through effective conservation methods.
 - b. Require the use of water conservation devices in new structural development.
 - c. Encourage exterior water conservation.
 - d. Encourage water conservation for agricultural uses by using efficient irrigation practices.

The following are policies to minimize the risks from natural hazards from the San Mateo County General Plan Chapter 15, *Natural Hazards*:

- **Policy 15.1 Minimizing Risks from Natural Hazards:** Minimize the potential risks resulting from natural hazards, including but not limited to, loss of life, injury, damage to property, litigation, high service and maintenance costs, and other social and economic dislocations.
- **Policy 15.3 Incorporate Information on Natural Hazards into Land Use and Development Decisions:** Integrate data on natural hazards into review of land use and development proposals in order to identify hazardous areas, potential constraints to development and/or appropriate mitigation measures.
- **Policy 15.4 Definition of Natural Hazards:** Define natural hazards as conditions of potential danger or risk to life and/or property resulting from acts of nature, man-made alterations to the natural environment that create hazardous conditions, and/or hazardous conditions intrinsic to the natural environment. Natural hazards may include risks or vulnerabilities likely to be caused or exacerbated by climate change.
- **Policy 15.6 Definition of Fire Hazards:** Define fire hazards as wildland or structural fires that occur in areas that are remote, have difficult access for fire vehicles, and/or contain potentially flammable vegetative communities.
- **Policy 15.7 Definition of Flooding Hazards:** Define flooding hazards as general and temporary conditions of partial or complete inundation of normally dry land areas due to: (1) the overflow of inland or tidal waters; or (2) the unusual and rapid accumulation of runoff of surface waters resulting from storms, blockage of drainage channels or failures of dams, impoundments, and/or other public works facilities.
- **Policy 15.43 Determination of the Existence of a Flooding Hazard:**
 - a. When reviewing development proposals, use the Natural Hazards map to determine the general location of flooding hazard areas.
 - b. When the Natural Hazards map does not clearly illustrate the presence or extent of flooding hazards, use more detailed maps and information, including but not limited to, the Flood Insurance Rate Maps (FIRM) prepared by the Federal Emergency Management Agency (FEMA) for San Mateo County and the dam failure inundation maps prepared for the San Mateo County Office of Emergency Services.
- **Policy 15.45 Abatement of Flooding Hazards:** Support measures for the abatement of flooding hazards, including but not limited to: (1) removal or relocation of development from flood hazard areas; (2) construction of impoundments or channel diversions provided that adequate mitigation of environmental impacts can be demonstrated; and (3) debris clearance and silt removal programs conducted in a manner so as not to disrupt existing riparian communities.
- **Policy 15.46 Appropriate Land Uses and Densities in Flooding Hazard Areas:**
 - a. Consider rural land uses that do not expose significant numbers of people to flooding hazards, such as agriculture, timber production, public and private recreation, and general open space, to be the most appropriate for flooding hazard areas.

- b. Consider higher density land uses to be appropriate within flood hazard areas in developed urban areas and rural service centers when adequate mitigation of the flood hazard can be demonstrated.
- c. Discourage the location of new critical facilities in flood hazard areas.
- **Policy 15.47 Review Criteria for Locating Development in Areas of Special Flood Hazard:**
 - a. Wherever possible, retain natural floodplains and guide development to areas outside of areas of special flood hazard.
 - b. When development is proposed in areas of special flood hazards, require any structure to be safely elevated above the base flood elevation and not contribute to the flooding hazard to surrounding structures.
 - c. Promote subdivision design to avoid areas of special flood hazard when possible, and identify these areas on the approved subdivision map.
- **Policy 15.49 Incorporate Flooding Concerns During Review of Proposals for New Development:** In order to minimize damage to life and property, minimize disruption of commerce and governmental services and avoid the unnecessary expenditure of public funds, incorporate measures which regulate the location, design and intensity of new development in flood hazard areas.”

3.7.2.3.5 JAMES V. FITZGERALD AREA OF SPECIAL BIOLOGICAL SIGNIFICANCE POLLUTION REDUCTION PROGRAM (2016)

In June 2011, the County began working on the Fitzgerald ASBS Pollution Reduction Program to comply with the Water Board’s General Exception to the Ocean Plan with Special Protections. The program involves the implementation of targeted stormwater BMPs, water quality studies, BMP effectiveness monitoring within the ASBS watershed boundary, as well as education and outreach. The program’s goals are to improve water quality and protect the beneficial uses of the Fitzgerald ASBS and assist with the County’s compliance with the ASBS stormwater regulations.²³³ Under the SWRCB’s Ocean Plan with Special Protections, the Planning Department must regulate private stormwater discharges into the ASBS by implementing the following:

- Discharges may occur only during the wet weather season (October 1 through April 30) and must 1) be composed of only stormwater, 2) be free of pollutants, and 3) must not alter natural ocean water quality in the ASBS.
- All new point source discharges into the ASBS shall either be retained on-site or treated on-site before entering a County storm drain.
- Stormwater retention and treatment features must be identified on project plans and implemented during construction and future maintenance.
- ESCPs must be submitted for review and approval for projects within the ASBS watershed.
- Weekly construction site inspections must be required for all construction sites within the ASBS watershed.

²³³ County of San Mateo. 2016. *James V. Fitzgerald Area of Special Biological Significance (ASBS) Updated Final Compliance Plan*. Prepared by EOA, Inc. Available at: <https://www.smcsustainability.org/wp-content/uploads/filebase/energy-water/stormwater/SMC-ASBS-Compliance-Plan-UPDATED-9-20-16.pdf>. Accessed March 22, 2023.

- On-site areas (new or replaced) used for car washing must drain to adequately sized vegetative areas or other on-site treatment facilities or occur on porous surfaces (e.g., gravel, grass) and use as little detergent as necessary. Discharge to the sanitary sewer is prohibited.

The County finalized the Fitzgerald SBS Pollution Reduction Program in 2016. The project's goal was to improve water quality and protect beneficial uses of the Fitzgerald ASBS and assist with the County's compliance with ASBS stormwater regulations.

3.7.2.4 City/County Association of Governments, San Mateo Countywide Sustainable Streets Master Plan

C/CAG finalized the San Mateo Countywide Sustainable Streets Master Plan using grant funds from the California Department of Transportation.²³⁴ The plan aims to identify and prioritize street improvements for adding green infrastructure to provide water quality, flood reduction, and community benefits throughout San Mateo County in the context of climate change. The goals of the project include identifying how climate change would affect future rainfall, planning to sustainably capture and clean runoff in San Mateo County roadways, and using nature-based solutions, while providing safer and more resilient streets for all users including motorists, bicyclists, and pedestrians. The plan is anticipated to include high-resolution drainage mapping, project concepts to aid in pursuing implementation, and a tracking tool to view progress over time.

3.7.3 Thresholds of Significance

The determinations of significance of project impacts are based on applicable policies, regulations, goals, and guidelines defined by the California Environmental Quality Act (CEQA) and the County. Specifically, the project would be considered to have a significant effect on hydrology and water quality if the effects exceed the significance criteria described below:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?
2. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:
 - a. result in substantial erosion or siltation on- or off-site;
 - b. substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site;
 - c. create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
or
 - d. Impede or redirect flood flows?
4. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

²³⁴ C/CAG. 2021. Sustainable Streets Master Plan. Available at: <https://www.flowstobay.org/data-resources/plans/sustainable-streets-master-plan/>. Accessed May 24, 2023.

5. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?
6. Significantly degrade surface or groundwater water quality?
7. Result in increased impervious surfaces and associated increased runoff?

Each of these thresholds is discussed under Section 3.7.4.1, Impacts and Mitigation Measures.

3.7.4 Impact Assessment and Methodology

3.7.4.1 Impacts and Mitigation Measures

Impact HYD-1: Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? (Less Than Significant)

Construction

Water quality can be affected in the short term by construction activity (e.g., erosion and sedimentation due to land disturbances, uncontained material and equipment storage areas, improper handling of hazardous materials) and in the long term due to the release of urban pollutants (e.g., landscaping fertilizers, pesticides, and herbicides; leaking oils and grease from vehicles; trash). Water quality impacts associated with the proposed project can come from both stormwater runoff and discrete non-stormwater discharges to receiving waters. Without proper consideration and precautions, and without conducting construction and development activities according to the terms and conditions of applicable permits, such activities can degrade water quality in receiving water bodies, leading to violation of water quality standards and/or Basin Plan objectives.

Early stages of construction would allow for low risks to soil and contamination due to the relatively high permeable area, but as construction advances, more impermeable surfaces would be created, and soil and contaminant mobilization would increase. The addition of impervious surfaces would prevent surface water infiltration into the ground surface and increase the stormwater runoff volume and rate compared to existing conditions.

Project construction would remove approximately 1 acre of existing impervious surfaces on-site, totaling approximately 20,840 cubic yards of concrete and 295 trees. Construction would excavate approximately 9,507 cubic yards of soil and import approximately 9,881 cubic yards of fill to meet a total fill requirement of 19,388 cubic yards.

During construction, particularly during phases that include excavation, grading, and other earthwork, the potential exists for substantial increases in soil erosion and sediment transport in stormwater runoff that have the potential to affect the water quality of receiving waters. Sedimentation can lead to a degradation of water quality because sediment can carry nitrogen, phosphorus, petroleum, and other organic contaminants, pesticides, herbicides, and trace metals. Sediment can also accumulate at the entrance of downstream storm drain system inlets and reduce drainage capacity. In addition to stormwater runoff and potential resulting water quality and sediment impacts, there is the potential for hazardous materials, including petroleum products associated with diesel vehicle and equipment use, and contaminants from paving materials, concrete mixing, pouring and washout, and sanitary facilities, to enter Montara Creek. Following vegetation clearing, tree removal, and grading, excavation would occur for roadbed improvements, and foundations and concrete would be poured. These activities have the potential to

contribute pollutants to Montara Creek (particularly turbidity and high-pH wash water) that could affect water quality and may violate water quality standards if left uncontrolled.

However, prior to the issuance of grading permits or approval of development plans, the project would be required to implement a County-approved ESCP per the San Mateo Countywide Stormwater Pollution Prevention Program.^{235, 236} The ESCP would contain erosion and sediment controls, soil stabilization, dewatering, source controls, and pollution prevention measures to mitigate erosion and sediment impacts during the construction period. The detailed ESCP would include, at a minimum, the following:

1. Provide a proposed schedule of grading activities, monitoring, and infrastructure milestones in chronological format. An anticipated construction schedule and/or construction duration (in weeks or months) shall be provided.
2. Delineate work areas including protecting surface waters, storm drain inlets, sensitive areas, and buffer zones. These areas should be consolidated and located outside steep or sensitive areas.
3. Protect surface water locations. Provide primary control measures (e.g., silt fence along the outer buffer zone of the creek; do-not-disturb riparian areas) and secondary control measures (e.g., fiber rolls) in disturbed areas sloping toward the creek/ocean.
4. Protect storm drain inlets using fiber rolls, permeable rock sacks, or other measures that keep sediment from entering the drain. Show inlet locations and protection measure details on the ESCP Plan. Include in the ESCP Plan that filter fabric or filter baskets shall be installed in the drains and cleaned out after each rain event, or as needed to function properly. Sandbags are prohibited as they tear and can result in sand entering the storm drains.
5. Maximize and protect areas to be undisturbed (including sensitive areas and buffer zones), using a vegetative buffer strip or 6-foot fence/barrier. Show the “limits of work” on the ESCP Plan and barriers along the “limit.” Forbid work, storage, earth moving, vegetation clearing, and other disturbances outside of the “limit.” Hay bales are prohibited as these can easily fall apart.
6. Provide a separate Tree Protection Plan to identify and protect trees and driplines extending over the project site, using fencing placed along drip lines. An arborist report is required for those trees where work will encroach into driplines (for on-site and off-site trees). See the County’s Significant and/or Heritage Tree Ordinances for Tree Protection Plan guidelines.
7. Prevent runoff to off-site areas using perimeter controls (diversion berms, silt fencing, and/or fiber rolls). Silt fencing is preferred, but fiber rolls may work in some instances. Where the site is flat or the slope is gentle, installing these measures on the property line should be adequate. On slopes greater than 3:1, the measures must be installed along contour lines.
8. Indicate the location and method for stabilizing disturbed bare-earth areas. Use seeding and/or mulching and the following, as necessary:
 - a. For slopes less than 3:1, provide silt fencing or fiber rolls along contour lines.
 - b. For slopes greater than 3:1, anchored erosion blankets (rice, straw, or coconut) and fiber rolls or silt fencing at the crest are required. Jute netting is preferred when used with seeding.
9. Use diversion berms to divert water from unstable or denuded areas (e.g., top and base of a disturbed slope, grade breaks where slopes transition to a steeper slope).

²³⁵ County of San Mateo. 2023b. Erosion and Sediment Control Plan Requirements. Available at: <https://www.smcgov.org/planning/erosion-and-sediment-control-plan-requirements>. Accessed May 24, 2023.

²³⁶ C/CAG. 2023. Construction Best Practices. Available at: <https://www.flowstobay.org/preventing-stormwater-pollution/with-new-redevelopment/construction-best-practices/>. Accessed May 24, 2023.

10. Direct water from construction areas to designated temporary filtration/detention areas. Show any
11. temporary detention areas for stormwater and stabilization of those areas.
12. Show areas and proposed protection of temporary stockpiles using anchored-down plastic sheeting in dry weather. The use of plastic sheeting during the wet season, October 1 through April 30, is not allowed unless the stockpile is also protected with fiber rolls containing the base of the stockpile. Alternatively, in wet weather, or for longer storage, use seeding and mulching, soil blankets, or mats.

The applicant shall comply with the NPDES General Construction Activities Stormwater Permit requirements established by the CWA. The applicant can obtain coverage under the General Permit by filing a Notice of Intent with the SWRCB's Division of Water Quality. The filing shall describe erosion control and stormwater treatment measures to be implemented during and following construction and provide a schedule for monitoring performance. These BMPs shall serve to control point and nonpoint source pollutants in stormwater and constitute the project's SWPPP for construction activities. While the SWPPP will include several of the same components of the ESCP, the SWPPP shall also include BMPs for preventing the discharge of other nonpoint source pollutants besides sediment (paint, concrete, etc.) to downstream waters.

The SWPPP must specify the location, type, and maintenance requirements for BMPs necessary to prevent stormwater runoff from carrying construction-related pollutants into nearby receiving waters (in this case, Montara Creek). BMPs must be implemented to address the potential release of fuels, oil, and/or lubricants from construction vehicles and equipment (e.g., drip pans, secondary containment, washing stations); release of sediment from material stockpiles and other construction-related excavations (e.g., sediment barriers, soil binders); and other construction-related activities with the potential to adversely affect water quality. The number, type, location, and maintenance requirements of BMPs to be implemented as part of the SWPPP depend on site-specific risk factors such as soil erosivity factors, construction season/duration, and receiving water sensitivity. The SWPPP will also incorporate the recommendations contained in the Site Management Plan, which outlines measures to minimize dust control, stormwater runoff, and tracking of soil off-site. These recommendations include equipment decontamination and personal protective equipment.

Operation

The project would increase impervious surfaces on-site by approximately 143,254 square feet. Operation of the project would also involve activities that would generate new sources of pollutants on-site, such as pesticides, fertilizers, oils, grease, lubricants, and sediment in urban runoff. New impervious surfaces, including roads and parking lots, collect automobile-derived pollutants such as oils, greases, heavy metals, and rubber. During storm events, these pollutants would be transported into the proposed stormwater management system by surface runoff. An increase in point source and nonpoint source pollution could result from increases in development intensity that may directly impact water quality specific to site drainage patterns. Accordingly, disturbed soils, sedimentation, and contaminants that are mobilized by water flow may ultimately be conveyed northwest toward Carlos Street and 16th Street, ultimately discharging to Montara Creek.

The project would also implement the site-specific recommendations included in the geotechnical investigation²³⁷ and 2015 Site Management Plan, as part of MM-HAZ-1.²³⁸ The project would comply

²³⁷ Rockridge Geotechnical. 2022. Geotechnical Investigation – Cypress Point Family Community, 16th and Carlos Streets, Moss Beach, California.

²³⁸ AEI Consultants, 2016.

with the construction site controls, site design measures, source control regulations, and stormwater treatment measures outlined in the ESCP, SWPPP, MRP, and the recommendations within the geotechnical investigation. With inclusion of the above cited regulatory requirements, implementation of the project would not violate any water quality standards or waste discharge requirements, and impacts would be less than significant.

Impact HYD-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? (Less than Significant)

Construction

Construction of all aspects of the proposed project would require a minimal amount of water for dust control and slurry mixing. Water would be obtained from the Montara Water and Sanitary District (MWSD), which obtains its entire supply from groundwater sources from the San Mateo Coastal Basin aquifers and surface water diverted from Montara Creek.²³⁹ Water for dust control would be transported to the project site by truck. Construction of the project would not substantially decrease groundwater supplies or interfere with groundwater recharge; impacts would be less than significant.

Operation

The project site and the proposed 71 residential units would obtain water from the MWSD, as described in Section 3.11, Utilities and Service Systems. Project operation would result in groundwater use due to the source of MWSD water supplies.

As stated previously, the project would increase impervious surfaces on-site by approximately 143,254 square feet. Impervious surfaces prevent the infiltration of runoff into the underlying soil and can interfere with groundwater recharge. However, as noted in the geotechnical investigation, the project site has low permeability of the near-surface soils; portions of the site are underlain by bedrock and there is no groundwater present in the upper approximately 30 feet of soil.²⁴⁰ Lower Montara Creek is incised to bedrock, thereby limiting aquifer recharge from this reach of the stream.²⁴¹ Therefore, the groundwater recharge on-site is low.

With implementation of the project, an approximately 7-acre portion of the site would remain pervious and continue to serve as groundwater recharge during storm events. The remaining impervious areas would be served by bioretention basins. Stormwater within the basins would be retained, and a major portion of the water would be discharged into a storm drain for eventual discharge to Montara Creek. Some stormwater within the bioretention basins would percolate to groundwater. Local recharge within the Upper Moss Beach groundwater subbasin comes primarily from storm events.

As the project site is not identified as an important area for groundwater recharge, and because some of the runoff from the site would be retained in bioretention ponds that would facilitate recharge, a reduction in the amount of pervious area on-site would not substantially interfere with groundwater recharge. The impact on groundwater recharge would be less than significant.

²³⁹ Montara Water and Sanitary District. 2017. 2017 Water System Master Plan. Prepared by SRT Consultants. Available at: https://mwsd.montara.org/assets/uploads/documents/MWSD_2017%20Master%20Plan%20Update_Rev17_082417_Full.pdf. Accessed May 24, 2023.

²⁴⁰ Rockridge Geotechnical. 2022. Geotechnical Investigation – Cypress Point Family Community, 16th and Carlos Streets, Moss Beach, California.

²⁴¹ Balance Hydrologics, 2010.

Impacts on the hydrologic conditions of groundwater resources and the groundwater level of the Half Moon Bay Terrace Groundwater Basin would be less than significant. Impacts associated with the availability of an adequate groundwater supply are addressed in Section 3.11, Utilities and Service Systems.

Impact HYD-3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

- **result in substantial erosion or siltation on- or off-site;**
- **substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;**
- **create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;**
- **or impede or redirect flood flows? (Less than Significant)**

As required by the MRP and the authority given to the SMCWPPP, projects creating 1 or more acres of impervious area in non-exempt regions of San Mateo County are required to reduce increased runoff associated with the project so that the amount of stormwater runoff off-site does not increase.

As discussed under Impact HYD-1, the project would also be required to implement an ESCP and SWPPP, per the MRP and the San Mateo Countywide Stormwater Pollution Prevention Program.

The project used the Bay Area Hydrology Model to analyze peak flow comparisons for the 2, 5, 10, and 25-year storm events; this model is designed to fully comply with the County requirements.²⁴² In addition to MRP requirements, all projects resulting in an increase in impervious surface must also comply with the County’s Drainage Policy.²⁴³ Compliance includes a written analysis of the delineation of drainage basins, a description of the proposed drainage system, discussion of the rationale used to design the system, discussion of methods and/or calculations, description of how excess drainage would be detained, and a description of how discharge would be controlled.

The project includes a comprehensive stormwater management system with four distinct drainage management areas (DMAs) based on stormwater flow patterns. Stormwater runoff on the project site would be collected by overland flow and directed away from buildings to three stormwater bioretention basins in the western portion of the project site. The required and provided bioretention square footage for each DMA is shown in Table 3.7-1. The bioretention basins would be designed to comply with the project’s dual requirements of stormwater treatment and HM requirements.

Table 3.7-1. Drainage Management Areas

Drainage Management Areas	Total Area (square feet)	Impervious Area (square feet)	Pervious Area (square feet)	Bioretention Area Required (square feet)	Bioretention Area Provided (square feet)
DMA 1	111,973	64,093	45,529	2,150	2,351

²⁴² BKF Engineers, 2018.

²⁴³ County of San Mateo Planning and Building Department. 2023. Surface Water Drainage Review. Available at: <https://www.smcgov.org/planning/surface-water-drainage-review>. Accessed May 24, 2023.

Drainage Management Areas	Total Area (square feet)	Impervious Area (square feet)	Pervious Area (square feet)	Bioretention Area Required (square feet)	Bioretention Area Provided (square feet)
DMA 2	109,233	73,263	33,988	1,950	1,982
DMA 3	8,188	4,902	3,086	161	200
DMA 4	19,652	996	18,656	0	0
Total	249,046	143,254	101,259	4,261	4,533

Per the recommendations of the geotechnical investigation, the bioretention areas would include underdrains and/or drain inlets and no exfiltration into the subgrade soil due to the low permeability of the near-surface soil.²⁴⁴ Drain inlets would also be located at low points throughout the hardscape and landscape areas to collect and convey large storm event overflow runoff. Storm drain lines ranging in diameter from approximately 12 inches to 21 inches would move runoff to two on-site catch basins along the western boundary. The project would install a new connection to the existing storm drain main on Carlos Street, which ultimately outfalls to Montara Creek.

Compliance with the Municipal Regional Stormwater Permit and Planning Department requirements would reduce drainage and stormwater impacts to a less-than-significant level.

Impact HYD-4: Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? (Less than Significant)

Most of the project site is located outside a FEMA flood hazard zone. A small portion of the site along the northern boundary lies within the flood hazard Zone X associated with Montara Creek. However, the water surface elevation in Montara Creek is approximately 100 feet below the portion of the site planned for development.

The project site is not located within a tsunami hazard area (see Figure 3.7-3).²⁴⁵ The project site is located on a bluff at an elevation of between 95 feet amsl and 205 feet amsl. The bluffs and elevation in the project site protect development from damage by tsunamis. There are no large reservoirs in the project vicinity so the project would not be in an area subject to inundation hazards from seiche. The geology of the site is not susceptible to landslides or mudflow. Impacts related to these hazards and the risk of pollutant release due to project inundation would be less than significant.

Impact HYD-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? (Less than Significant)

The proposed project would abide by all requirements of the San Mateo Countywide Water Pollution Prevention Program and the MRP issued by the SFBRWQCB. The project would not conflict with the Water Quality Control Plan for the San Francisco Bay Basin because it would comply with all applicable requirements of the MRP. The project site is not located in a groundwater basin and would not use groundwater; therefore, it would not conflict with or obstruct the implementation of a sustainable groundwater management plan. Impacts would be less than significant.

²⁴⁴ Rockridge Geotechnical, 2022.

²⁴⁵ California Geological Survey. 2021. California Tsunami Hazard Area Maps and Data. Available at: <https://www.conservation.ca.gov/cgs/tsunami/maps>. Accessed March 22, 2023.

Impact HYD-6: Significantly degrade surface or groundwater water quality?

Refer to the analysis under Impacts HYD-1 and HYD-2.

Impact HYD-7: Result in increased impervious surfaces and associated increased runoff?

Refer to the analysis under Impact HYD-3.

3.7.5 Cumulative Impacts

Impact C-HYD-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to hydrology and water quality? (Less than Significant)

Cumulative development would result in a change from undeveloped to urban pollutant discharge to surface water runoff and groundwater percolation. Construction activities could also result in the pollution of natural watercourses or underground aquifers. The types of pollutant discharges that could occur as a result of construction include accidental spillage of fuel and lubricants, discharge of excess concrete, and an increase in sediment runoff. Storm runoff concentrations of oil, grease, heavy metals, and debris increase as the amount of urban development increases in the watershed. However, when properly implemented, water quality requirements of the SFBRWQCB and the County would mitigate any adverse impacts resulting from new development on the project site.

Therefore, the project, in conjunction with pending cumulative development, would not significantly increase the concentration of urban pollutants in surface runoff or groundwater. Polluted runoff that may be generated during construction activities of cumulative development and projects considered in this analysis would be regulated by the SWRCB under General Construction, NPDES permits, and would be minimized using standard construction BMPs. Cumulative impacts would therefore be less than significant for hydrology and water quality. With adherence to these regulatory standards, the cumulative contribution from the project would be less than significant. No mitigation is required.

3.8 LAND USE AND PLANNING

This section describes existing land uses in the project vicinity, identifies regulatory requirements, and assesses potential project-related impacts on land use. The section includes an analysis of the project's compatibility with land use and/or habitat plans.

3.8.1 Existing Conditions

The project site is in the unincorporated community of Moss Beach in coastal San Mateo County. The 11.02-acre project site is one parcel (Assessor's Parcel Number 037-022-070) and contains remnant foundations of former military barracks and a school as well as Monterey pine and Monterey cypress forest, non-native grassland, and shrubs. The project site includes two Montara Water and Sanitary District (MWSD) water tanks and associated facilities which are not part of the proposed project. The project is located east of Highway 1 and the Pacific Ocean, southeast of the Point Montara Lighthouse Hostel, and on the northwest edge of the unincorporated community of Moss Beach. The project site is surrounded to the south and east by single-family residential areas. The Coastside Fire Protection District Station 44 is also located to the south. To the north is Montara Creek with scattered single-family residences north of the creek. To the west is one single-family residence and Highway 1. West of Highway 1 are single-family residences, the MWSD office and treatment facilities, Montara Lighthouse and Hostel, and the Pacific Ocean.

As discussed in Chapter 2, Project Description, the project site has a land use designation of Medium-High Residential under the County of San Mateo (County) General Plan and is zoned Planned Unit Development District (PUD) 140/Coastal Development District under the County Zoning laws. The California Coastal Commission certified the Local Coastal Program (LCP) land use designation amendment from Medium-High Density Residential to Medium Density Residential on March 12, 2021.²⁴⁶

Surrounding General Plan land use designations include Medium Density Residential to the southwest and southeast, and Open Space and Medium Density Residential to the northeast. The Highway 1 corridor to the west is under California Department of Transportation (Caltrans) authority and does not have a General Plan land use designation and the land to the west of Highway 1 is designated Institutional (Figure 3.8-1). The area surrounding the project site is zoned Resource Management to the northeast, and One Family Residential/Residential Density District 17/Design Review District/Coastal Development District on all other adjacent sides. Residential Density District 17 is the Combining District for the coastal Montara–Moss Beach–El Granada (Midcoast) planning area. The land to the west of Highway 1 is zoned One Family Residential, Coastal Management, and Coastside Commercial Recreation (Figure 3.8-2).

²⁴⁶ On April 21, 2021, a lawsuit was filed challenging the Coastal Commission staff report under California Environmental Quality Act (CEQA), the LCP amendment under the Coastal Act, and the hearing process under the Code of Civil Procedure section 1094.5(b). The lawsuit was dismissed entirely on April 21, 2023. Evidence supporting the challenge was not provided, and the court found that commission complied with CEQA and the Coastal Act and did not deprive the petitioner of a fair hearing. (*Superior Court of California, 2023. County of San Francisco. Order Denying Verified Petition for Writ of Mandate Case No. CPF-21-517430. April 21, 2023.*)

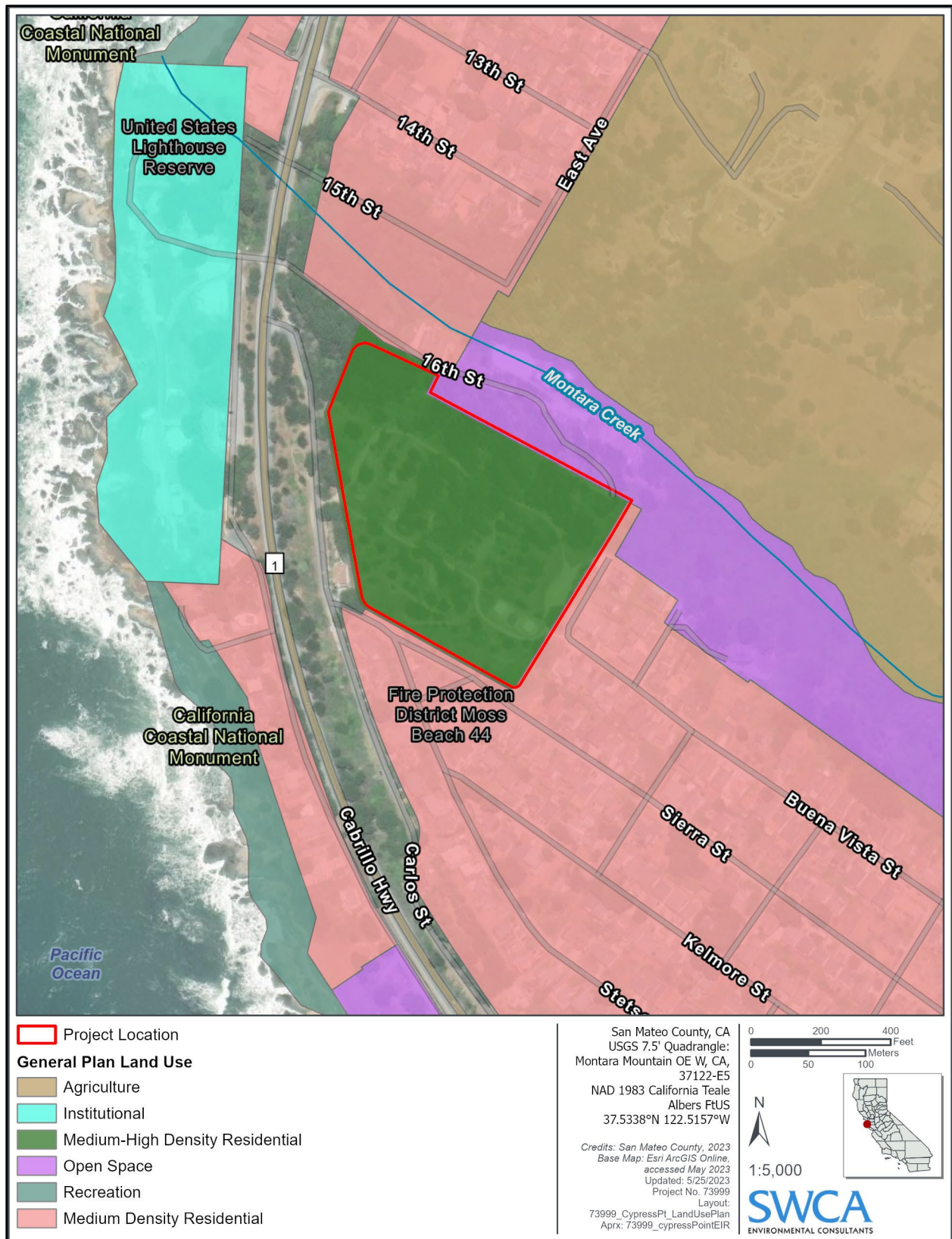


Figure 3.8-1. County of San Mateo General Plan land use map.

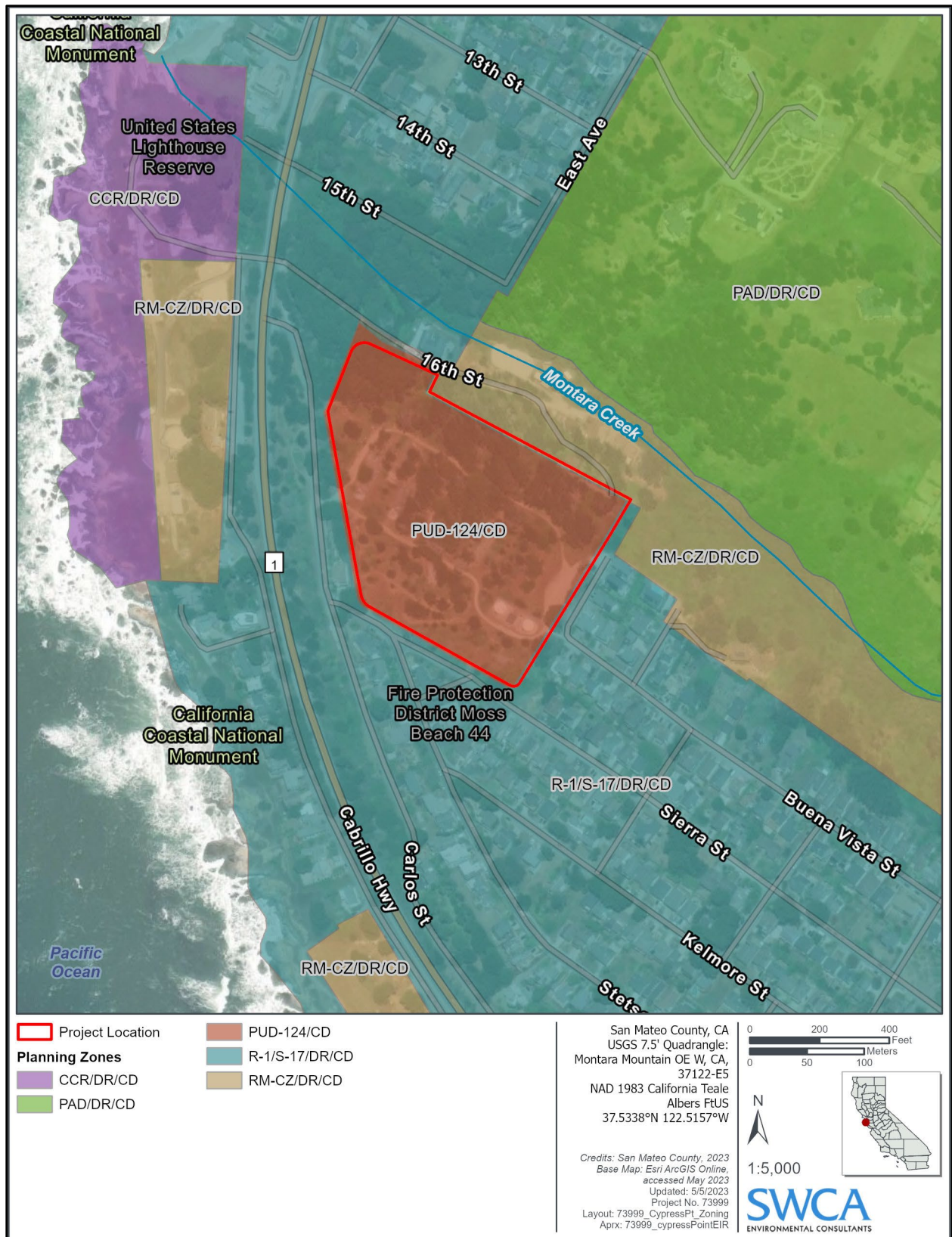


Figure 3.8-2. County of San Mateo zoning map.

3.8.2 Regulatory Setting

3.8.2.1 Federal

There are no applicable federal land use or planning regulations for the proposed project.

3.8.2.2 State

3.8.2.2.1 REGIONAL HOUSING NEEDS ALLOCATION

The California Department of Housing and Community Development is responsible for forecasting and determining housing needs throughout the state on a regular cycle. The Regional Housing Needs Determination and Allocation process occurs every 8 years, and is a process designed to identify the total number of housing units that every local government in the state must plan to accommodate in their next Housing Element cycle. First the state determines how much housing at a variety of affordability levels is needed for each region in the state. The number of housing units are divided into four categories: extremely low/very-low income, low income, moderate income, and above-moderate income. Then regional governments develop a methodology to allocate those housing needs to local governments. The 6th cycle of the Regional Housing Needs Allocation (RHNA) was adopted by the state in 2020 and applies to the planning period 2023 through 2031.²⁴⁷

The Association of Bay Area Governments (ABAG) is the Council of Governments for the nine-county San Francisco Bay Area. ABAG is responsible for allocating the regional share of the RHNA among all cities, towns, and counties in the Bay Area region. During 2019 and 2020, ABAG developed a RHNA methodology with input from a committee of elected officials, city and county staff, and stakeholders (Housing Methodology Committee).²⁴⁸

3.8.2.3 Local

3.8.2.3.1 COUNTY OF SAN MATEO GENERAL PLAN (1986)

The County General Plan designates Montara–Moss Beach–El Granada as an existing Urban Community (Definitions 8.5 and 8.9). Under definition 8.12, it adopts the land use designations and amendments of the County LCP for this community.²⁴⁹

As part of project approvals, a General Plan Amendment from Medium-High Density Residential to Medium Density Residential is currently being processed and would ensure the project is consistent with the LCP zoning and land use designations.

²⁴⁷ California Department of Housing and Community Development. 2023. *Regional Housing Need Allocation (RHNA)*. Available at: <https://www.hcd.ca.gov/planning-and-community-development/regional-housing-needs-allocation>. Accessed May 5, 2023.

²⁴⁸ Association of Bay Area Governments (ABAG). 2021. *Draft Regional Housing Needs Allocation (RHNA) Plan: San Francisco Bay Area, 2023-2031*. Available at: https://abag.ca.gov/sites/default/files/documents/2021-05/ABAG_2023-2031_Draft_RHNA_Plan.pdf. Accessed January 9, 2023.

²⁴⁹ County of San Mateo. 1986. *San Mateo County General Plan Policies*. Available at: <https://www.smcgov.org/planning/general-plan>. Accessed May 5, 2023.

3.8.2.3.2 COUNTY OF SAN MATEO GENERAL PLAN HOUSING ELEMENT (2015)

As part of their General Plan, the County is required to update their Housing Element to incorporate their share of the RHNA. The Housing Element must include an inventory of sufficient sites zoned for each income category of development. The existing 2014–2022 Housing Element (2015) addresses housing needs for the period 2014 through 2022. The County released the Public Review Draft 2023–2031 Housing Element for review in November 2022 that will address housing needs for 2023–2031.²⁵⁰ The Draft Housing Element is based on the 6th cycle RHNA, which applies to the planning period 2023 through 2031. The project site is designated as an affordable housing opportunity site under both the 2014–2022 and the 2023–2031 San Mateo County Housing Elements, and the project would be available to households making up to 80% of the area median income.²⁵¹ This would include households in the Very Low (less than 50% of the median) and Low (50% to 80% of the median) income categories.²⁵²

3.8.2.3.3 COUNTY OF SAN MATEO MIDCOAST LOCAL COASTAL PROGRAM (2013)

In 1980, the County Board of Supervisors and California Coastal Commission approved the LCP for the Midcoast. All development in the Coastal Zone requires either a Coastal Development Permit (CDP) or exemption from CDP requirements. The current edition of the LCP includes amendments through August 8, 2012.²⁵³ In the LCP, the site is designated as infill and as a priority development site for affordable housing.²⁵⁴

The project site is located in the Midcoast LCP Area of San Mateo County and is regulated under the County LCP.²⁵⁵ The LCP is made up of 12 components: Locating and Planning New Development, Public Works, Housing, Energy, Agriculture, Aquaculture, Sensitive Habitats, Visual Resources, Hazards, Shoreline Access, Recreation/Visitor serving Facilities, and Commercial Fishing/Recreational Boating. Policies that are applicable to the proposed project include the following:

Locating and Planning New Development

- **LCP Policy 1.1** requires a CDP for all development in the Coastal Zone, subject to certain exemptions.
- **LCP Policy 1.5(b)** permits in urban areas land uses in the LCP Land Use Plan Map and conditional uses up to the densities specified in Tables 1.2 and 1.3 of the LCP.
- **LCP 1.17** states the intention to conserve, improve, and revitalize existing residential, commercial, and industrial areas.

²⁵⁰ County of San Mateo. 2023. *San Mateo County Housing Element Update 2023-2031*. Available at: <https://www.smcgov.org/planning/san-mateo-county-housing-element-update-2023-2031>. Accessed January 9, 2023.

²⁵¹ County of San Mateo. 2023. *San Mateo County Housing Element Update 2023-2031*. Available at: <https://www.smcgov.org/planning/san-mateo-county-housing-element-update-2023-2031>. Accessed January 9, 2023.

²⁵² Association of Bay Area Governments (ABAG), 2021. *Final Regional Housing Needs Allocation (RHNA) Plan: San Francisco Bay Area, 2023-2031*. Available at: https://abag.ca.gov/sites/default/files/documents/2021-12/Final_RHNA_Allocation_Report_2023-2031-approved_0.pdf. Accessed July 18, 2023.

²⁵³ County of San Mateo. 2013. *Local Coastal Program Policies*. Available at: <https://www.smcgov.org/planning/local-coastal-program#>. Accessed January 4, 2023.

²⁵⁴ San Mateo County. 2013. *Local Coastal Program Policies*. Available at: <https://www.smcgov.org/planning/local-coastal-program>. Accessed March 30, 2023.

²⁵⁵ County of San Mateo, 2013.

- **LCP Policy 1.18** directs new development to existing urban areas in order to maximize efficiencies and discourage urban sprawl and allows for some future growth to develop at relatively high densities for affordable housing.
- **LCP Policy 1.19** states that no permit for development in the urban area shall be approved unless it can be demonstrated that it will be served with adequate water supplies and wastewater treatment facilities. Section (c) specifies that new public water connections in the MSWD water service area will be allowed only if consistent with the MSWD Public Works Plan. Section (h) states that lack of adequate water supplies and wastewater facilities shall be grounds for denial of development applications.
- **LCP Policy 1.23(a)** limits the maximum number of new dwelling units per year to 40 units until:
 - A comprehensive transportation management is incorporated into the LCP
 - Adequate stormwater facilities have been constructed and there is sufficient evidence that the Intertie Pipeline System capacity is adequate to avoid sewage overflows and water quality violations
 - The growth rate is changed by an LCP amendment
- **LCP Policy 1.23(d)** exempts building permits for affordable housing from the 40-unit maximum if 1) the units are affordable as defined by Section 6102.48.6 of the certified zoning regulations and subject to income and cost/rent restrictions for the life of the development; and 2) the growth rate average over a 3-year period, that includes the year the building permit is issued and the following 2 years, does not exceed 40 units/year.
- **LCP Policy 1.25** requires protection of archaeological and paleontological resources, including mitigation plans for resources constructed in sensitive areas.
- **LCP Policy 1.35** requires that all new development and activities protect coastal water quality by:
 - a. Implementing appropriate site design and source control best management practices to prevent soil erosion and pollution runoff
 - d. Using multi-benefit, natural features in stormwater treatment systems, such as landscape-based bioretention areas, where feasible
 - e. Minimizing the introduction of pollutants into coastal waters
 - f. Minimizing the amount of impervious surfaces and maximizing on-site infiltration of runoff
 - j. For projects creating more than 1 acre of impervious surface, implementing hydromodification requirements as further detailed in Appendix 1.A of the LCP
 - k. Implementing the minimum stormwater pollution prevention requirements contained in Appendix 1.A of the LCP
- **LCP Policy 1.36** requires that all new development in the Half Moon Bay Airport Influence Area comply with all Federal Aviation Administration standards and criteria regarding safety, flashing lights, reflective material, land uses that may attract large concentrations of birds, heating, ventilation, and air conditioning (HVAC) exhaust fans, and land uses which may generate electrical or electronic interference with aircraft communications and/or instrumentation.

Public Works

- **LCP Policy 2.8** reserves public works capacity for identified priority land uses as shown on Table 2.7 and Table 2.17 of the LCP.

- **LCP Policy 2.16** reserves sewage treatment capacity identified priority land uses.
- **LCP Policy 2.24a** ensures water supplies are reserved for identified priority land uses.
- **LCP Policy 2.48** requires that roadway improvements be consistent with all applicable policies of the LCP.

Housing

- **LCP Policy 3.1** encourages adequate housing for low- and moderate-income residents and workers.
- **LCP Policy 3.2** strives to ensure decent housing for low- and moderate-income persons regardless of age, sex, race, marital status, or other arbitrary factors.
- **LCP Policy 3.3** strives to provide such housing in balanced residential environments.
- **LCP Policy 3.4** strives to improve the available range of housing choices.
- **LCP Policy 3.12** designates affordable housing sites as priority land uses for which water and sewer capacity will be reserved.
- **LCP Policy 3.13** requires that a new affordable development maintains a sense of community character.
- **LCP Policy 3.14** specifies that affordable housing on the Midcoast be located in the urban boundary.
- **LCP Policy 3.15.a(1)** designates the “11-acre site in North Moss Beach” as a potential affordable housing site and sets criteria for development.
- **LCP Policy 3.15b** designates the project site as Medium High Density to incorporate a density bonus within the land use designation.
- **LCP Policy 3.16a** limits the number of building permits for affordable housing units to 60 during any 12-month period.
- **LCP Policy 3.16b** allows the County Board of Supervisors to increase the number of permits if they find that the phasing “threatens the implementation of affordable housing by prohibiting developers from building when circumstances are uniquely favorable for a limited period of time.”
- **LCP Policy 3.20** provides for Grant Density Bonuses for affordable housing developments that meet specific requirements.
- **LCP Policy 3.21** establishes an inclusionary requirement for affordable housing in all new developments.
- **LCP Policy 8.12a** applies a Design Review Zoning District to urban areas of the Coastal Zone.
- **LCP Policy 8.12b** ensures new developments are located and designed so as not to block ocean views from public viewing points. Development in the Design Review District must be reviewed by the Design Review Committee.
- **LCP Policy 8.13a** includes special design guidelines for Montara–Moss Beach–El Granada–Miramar, which include 1) designing structures to fit the topography of the site, 2) use of natural materials and colors, 3) use of pitched roofs with non-reflective materials, 4) designing structures in scale with surroundings, 5) minimize blocking of views to or along the shoreline.

3.8.2.3.4 COUNTY OF SAN MATEO ZONING REGULATIONS

The County Zoning Regulations includes regulations to regulate growth in San Mateo County.²⁵⁶

Chapter 3. Parking

For apartments, the following number of parking spaces are required:

- 1 space for each studio apartment
- 1.2 spaces for each one-bedroom apartment
- 1.5 parking spaces for each two-bedroom apartment
- 2 spaces for each three- or more-bedroom apartment
- 1 visitor parking space for every 10 units
- 1 bicycle parking space for every 4 units
- 2 dedicated electric vehicle (EV) charging spaces

Affordable housing developments are required to have the same number of parking spaces required for single-family dwellings or apartments.

Under Section 6121, Parking Areas Development and Maintenance, parking areas are required to have the following:

- Parking areas for more than 10 vehicles shall be effectively screened on each side facing residential areas.
- Parking areas for more than 10 vehicles shall be paved with asphalt or Portland cement binder pavement.
- Parking areas shall be installed so cars do not overhang required sidewalks, planters, and landscaped areas.
- Landscaped areas at least 4 feet wide shall be provided adjacent to all street rights-of-way. Live landscaping shall be provided and maintained.

Chapter 9. Planned Unit Development (PUD) Districts

- Chapter 9 describes regulations for enacting a PUD district. Before enacting a PUD district, the Planning Commission must find the precise plan is in harmony with its surroundings; not in conflict with the County Master Plan; is desirable for future growth of the area; will not be detrimental to the character of the area; will not cause undue interference with existing or prospective traffic movements on adjacent highways; will provide adequate light, air, privacy, and convenience of access to the property; and will not be subject to undue risk of fire, inundation, and other dangers.

²⁵⁶ County of San Mateo. 2022. *Zoning Regulations*. Available at: <https://www.smcgov.org/media/101461/download?inline=>. Accessed May 5, 2023.

Chapter 18.6. Airport Overlay (A-O) District

Noise insulation in the A-O district is required to achieve the following: interior community noise equivalent levels (CNEL) with windows closed, attributable to exterior sources, shall not exceed an annual CNEL of 55 A-weighted decibels (dBA).

Chapter 20. Combining Districts

Section 6300.2. Regulations for S-17 Combining District (Midcoast). This sets building and setback requirements for the Midcoast. However, these regulations apply to “any single-family residential district with which the S-17 District is combined.” Therefore, they are not relevant to the project.

Section 6300.2.11. Winter Grading. Development related grading, e.g., site preparation, shall not occur between October 15 and April 15 in any given year unless the applicant demonstrates to the satisfaction of the Community Development Director and Building Official that the development site will be effectively contained to prevent erosion and sedimentation, and that such site containment has been established and is ongoing. Site containment shall include, but not be limited to, covering stored equipment and materials, stabilizing site entrances and exposed slopes, containing or reducing runoff, and protecting drain inlets.

Section 6300.9.11.70. Midcoast Impervious Surface Area. Under this section, the amount of impervious surface area is limited to 10% of the parcel size. Impervious structures include, but are not limited to, non-porous driveways, decks, patios, walkways, and swimming pools. An exception to the limit may be granted by the Community Development Director upon finding that off-site project drainage, i.e., runoff, will not exceed that amount equivalent to 10% (parcel size). The applicant shall submit a professionally prepared site plan showing topography, drainage, and calculations which demonstrates this finding can be made.

Section 6300.9.11.80. Building Height. For parcels east of Highway 1 and greater than 10,000 square feet or larger in size, the maximum building height is 32 feet.

Section 6300.9.11.100. Daylight Plane or Façade Articulation. This section provides details for Daylight Plane or Façade Articulation options for design requirements, which must be approved by the Design Review Committee.

Section 6300.9.11.110. Midcoast Winter Grading. Development-related grading shall not occur between October 15 and April 15, unless the applicant demonstrates to the satisfaction of the Community Development Director and Building Official that the development site will be effectively contained to prevent erosion and sedimentation, and that such site containment has been established and is ongoing.

Chapter 28.1. “DR” Design Review District

Section 6565.20. This section includes Standards for Design for one-family and two-family (duplex) residential development in the Midcoast area. The purpose of the Midcoast design standards is to encourage new single-family homes and additions that have their own individual character, while ensuring that they are complementary with neighboring houses, the neighborhood character of each Midcoast community, and the surrounding natural setting.

3.8.2.3.5 COUNTY OF SAN MATEO DESIGN REVIEW

The Coastsides Design Review Committee is appointed by the County Board of Supervisors to ensure that new development is compatible with the visual character of the San Mateo Coastsides, specifically the

communities of Montara, Moss Beach, El Granada, and Princeton-by-the-Sea.²⁵⁷ Specific standards have been adopted for each community and are used by the committee to review each development project. These policies are contained in the Zoning Regulations, Chapter 28.1.²⁵⁸ The committee bases design review on the guidelines in the Community Design Manual.²⁵⁹

Design review is required for all new projects located in the Design Review Overlay District that require a building permit, or grading or land clearing projects that requires a grading permit. The Design Review Committee holds public hearings to solicit comments and produces written findings of their decisions.²⁶⁰

The Community Design Manual includes guidelines to ensure the project is visually compatible with its environment and surrounding neighborhood. Design guidelines include:

- Minimize grading and vegetation removal
- Control site preparation to reduce erosion soil exposure and impacts on the natural drainage system
- Blend structures with the natural vegetative cover of the site
- Use only native vegetation in landscaping
- Set back development from streams, drainage areas, or bodies of water
- Preserve public views and views from scenic corridors
- Cluster development to preserve open space
- Integrate paved areas into the site and use small separate parking areas
- Use underground utilities where feasible
- Use exterior colors and materials that blend with natural setting and surrounding neighborhood
- Use simple shapes for buildings and roofs to unify building design
- Design structures related in size and scale to the surrounding neighborhood

3.8.2.3.6 RESOLUTION NO. 007603 (JULY 21, 2020)

On July 21, 2020, the County Board of Supervisors adopted a resolution which changed the zoning of the project site from PUD-124/CD to PUD-140/CD.²⁶¹ Under the new zoning designation, the parcel was:

- Changed from Medium High Density to Medium Density,
- Reduced from 148 dwelling units to 71 dwelling units (6.5 dwelling units per acre)

²⁵⁷ County of San Mateo. 2023. Coastsides Design Review Committee Webpage. Available at: <https://www.smcgov.org/planning/coastsides-design-review-committee>. Accessed March 5, 2023.

²⁵⁸ County of San Mateo, 2022.

²⁵⁹ County of San Mateo. 1976. *Community Design Manual*. Available at: <https://www.smcgov.org/planning/coastsides-design-review-committee>. Accessed May 5, 2023.

²⁶⁰ County of San Mateo, 2022.

²⁶¹ County of San Mateo Board of Supervisors. 2020. Ordinance No. 007603. (1) Amending Chapter 2 of Division VI of the County Ordinance Code to revise the zoning maps to change the zoning of the subject parcel to Planned Unit Development No. 140 (PUD-140); (2) Amending Chapter 2 of the division VI of the County Zoning Ordinance Code to revise the zoning maps to add Design Review Overlay to the subject parcel, and (3) Amending Chapter 2 of Division VI of the County Ordinance Code Appendix A, to enact the following planned unit development No. 140 Zoning District Regulations. Available at: <https://sanmateocounty.legistar.com/LegislationDetail.aspx?ID=4596406&GUID=23FD57DC-5964-41E0-BFBA-E29AA5709560&FullText=1>. Accessed January 4, 2023.

- Revised to require that all units (with the exception of the manager’s unit) be affordable, and
- Added Design Review Overlay to the parcel.

3.8.2.3.7 HALF MOON BAY AIRPORT ENVIRONS LAND USE COMPATIBILITY PLAN (2014)

The Airport Land Use Compatibility Plan (ALUCP) for the Half Moon Bay Airport is intended to “protect and promote safety and welfare of residents, business, and airport users near the airport.” It protects the public from airport noise and ensures people are not concentrated in areas susceptible to aircraft accidents.

Under Policy 4.1.8.3 of the ALUCP, the City/County Association of Governments shall encourage local governments to submit development proposals in the Airport Influence Area to the Airport Land Use Commission for review if they include more than 50 dwelling units. Under Table 4B, safety criteria for the Airport Influence Area includes requirements for maintaining 10% open land, airport disclosure notification, and airspace review for objects more than 100 feet tall; and prohibits hazards to flight.²⁶²

3.8.2.3.8 SIGNIFICANT TREE ORDINANCE OF COUNTY OF SAN MATEO (2016) AND REGULATIONS FOR THE PROTECTIONS OF HERITAGE TREES (2016)

These ordinances require submittal of an Existing Tree Plan, including 1) an Arborist’s report of all Significant or Heritage Trees to be removed, and 2) a tree protection plan for all trees to be preserved.^{263, 264} Permits must be acquired for all regulated trees to be removed. In this instance, the proposed tree removal for this project will be considered as part of the Coastal Development Permit application. Significant trees to be removed must be replaced at a one to one ratio, as determined by the Community Development Director.

3.8.3 Thresholds of Significance

The determinations of significance of project impacts are based on applicable policies, regulations, goals, and guidelines defined by CEQA Guidelines Appendix G, as modified by the County. Specifically, the project would be considered to have a significant effect on land use and planning if the effects exceed the significance criteria described below:

1. Physically divide an established community.
2. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.
3. Serve to encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities, or recreation activities).

²⁶² City/County Association of Governments of San Mateo County. 2014. *Final Airport Land Use Compatibility Plan for the Environs of Half Moon Bay Airport*. Available at: <https://ccag.ca.gov/wp-content/uploads/2014/10/HAF-ALUCP-Final.pdf>. Accessed January 12, 2023.

²⁶³ County of San Mateo. 2016. Significant Tree Ordinance of County of San Mateo. Available at: <https://www.smcgov.org/planning/tree-regulations>. Accessed May 5, 2023.

²⁶⁴ County of San Mateo. 2016. Regulation of Removal and Trimming of Heritage Trees on Public and Private Property. Available at: <https://www.smcgov.org/planning/tree-regulations>. Accessed May 5, 2023.

Each of these thresholds is discussed under Section 3.8.5, Impacts and Mitigation Measures, below.

3.8.4 Impact Assessment and Methodology

The County's General Plan, LCP, Zoning Regulations, and Half Moon Bay ALUCP were reviewed for consistency with the proposed project. Geographic information system (GIS) data and a site visit were used to confirm the land uses in the project site. Project effects related to land use and planning were compared against policies and zoning codes for consistency.

3.8.5 Impacts and Mitigation Measures

Impact LUP-1: Would the project physically divide an established community? (No Impact)

The project is located on the northwestern edge of the community of Moss Beach and would add 71 multi-family dwelling units in an area that is adjacent to existing single-family dwellings. It is zoned for 71 units of residential development and is surrounded by similar residential uses on the southeast and southwest in the form of residential development in Moss Beach, and on the north by residential development in Montara. Therefore, it would not physically divide an established community and no impact would occur.

Impact LUP-2: Would the project 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? (Less than Significant)

The project is designed to comply with all land use and zoning plans, policies, and regulations. It would construct an affordable housing project for persons residing or working on the coast, which would meet the intentions of General Plan Housing Element and LCP Policies 2.24, 3.1, 3.2, 3.3, 3.4, 3.13, 3.14, 3.15, 3.21. As part of project approval, a General Plan Amendment to amend the site designation from Medium-High Density Residential, which permits 8.8-17.4 units per acre, to Medium Density Residential which permits 6.1-8.7 units per acre is proposed. The proposed project's 71 units would be consistent with the proposed General Plan amendment to Medium Density Residential. The project would assist the County in meeting its regional fair share of housing allocation for the 6th cycle of the RHNA plan. In particular:

- The project applicant has applied for a Coastal Development Permit which complies with LCP Policy 1.1. The Coastal Commission completed a Policy Consistency Analysis in August 2020.
- The project is located in a designated urban area under the LCP Land Use Map and is located on a site designated for multi-family residential development. It is also on a site designated for affordable housing in both the existing (2015) and draft (2023) County General Plan Housing Elements. Therefore, the project would meet the requirements of LCP Policies 1.5(b), 1.17, and 1.18 and Zoning Code Chapter 9.
- The project meets all requirements of the PUD-140/DR Zoning District. The project includes a total of 71 units and would comply with all requirements of the Coastside Design Review Committee.
- The maximum height of project buildings is 28 feet and the minimum setback from Carlos Street is 20 feet. The project is designed to cluster buildings and provide minimal interference with visual character and a maximum of open space, meeting the requirements of Zoning Code

Sections 6300.9.11.80 and 6300.9.11.100, and LCP Policies 8.12a and 8.13a. The project would be subject to the Design Review Committee requirements in compliance with Zoning Code Chapter 28.1. The project would provide two parking spaces for each unit, would be paved, would be screened from residential areas, and would meet all requirements of Zoning Code Chapter 3.

- The project would be clustered on-site in order to minimize tree removal and allow for open space uses, including trails. Open space areas would be planted with low-water-intensive, and native species appropriate to the soils and climate. Therefore, the project would comply with Community Design Manual guidelines.
- The project would protect coastal water quality and include natural stormwater management and treatment systems, as required by the County's stormwater management guidelines for C.3 regulated projects. The project would also be required to implement a stormwater pollution protection plan during construction. See Section 3.7, Hydrology and Water Quality, for more information. The project is designed to comply with LCP Policy 1.35 and Zoning Codes 6300.2.11, 630.9.11.70, and 6300.9.11.110.²⁶⁵
- The project is located in the Airport Influence Area (Zone 7) for the Half Moon Bay Airport²⁶⁶ and would be reviewed for consistency by the Airport Land Use Commission. The project would not exceed any height requirements for the Airport Influence Area. The project would comply with Chapter 18.6 of the Zoning Code and the Half Moon Bay ALUCP.
- The project site is within the service area of the MWSD. The affordable housing units planned for the project site qualify as a priority use as described in the 2013 County LCP. Therefore, the project complies with LCP Policies 1.19, 2.8, 2.16, 2.24a, and 3.12.
- The project has completed a cultural resources investigation and would not impact archaeological or paleontological resources. Therefore, it would comply with LCP Policy 1.25.
- The applicant has requested that the County concur with their conclusion that the proposed project meets the requirements provided in Policy 1.23, Section (d), and should thus be exempted from the requirements contained in Policy 1.23. The project would provide affordable housing and it is likely that the growth rate over a 3-year period would not exceed 40 units per year. Therefore, the project would comply with LCP Policy 3.16a. In addition, the proposed project includes hydromodification features to ensure that post-project stormwater runoff does not exceed pre-project levels. With the County's approval of the applicant's request, the project would be consistent with these policies.
- The project would provide affordable housing opportunities for low-income persons. It has been designed to provide an overall density similar to the surrounding neighborhood, and much less than allowable under the prior zoning. Although it would be eligible for a density bonus under Policy 3.20, the applicant is not requesting a density bonus in order to design a project that fits with the character of the existing community.
- The project site has scattered Monterey Pine and Monterey Cypress trees, with a forest of these trees along the northern boundary of the project site. The removal of regulated trees has been minimized as much as possible, clustering the proposed development on the site to retain the forested open space on the northern portion of the project site. All existing trees to be retained on the project site would be fenced during construction and provided with temporary irrigation.

²⁶⁵ The project is currently undergoing an analysis for wildfire access and evacuation routes. This section will be updated once that evaluation is complete.

²⁶⁶ City/County Association of Governments of San Mateo County, 2014.

Therefore, the project would comply with the ordinances for protection of Heritage Trees and Significant Trees.

The Coastal Commission completed a Policy Consistency Analysis in August 2020 which is incorporated by reference into this document. The Policy Consistency Analysis concluded that the project is consistent with relevant San Mateo County LCP policies, with two exceptions.

- Policy 1.23 limits the maximum number of new dwelling units to 40 per year. Policy 1.23(d) states building permits for units in excess of 40 may still be issued if the units are affordable and if the growth rate average over a 3-year period will not exceed 40 units per year. MidPen has requested that the County concur with their conclusion that the growth rate average over a 3-year period for the project would not exceed 40 units per year. If the request is approved, the project would be consistent with this measure.
- Policy 3.15(d)(1)(a) states development on the project site must help meet the LCP housing objectives according to the following criteria: 21% of the total units constructed must be reserved for low-income households, and an additional 14% must be reserved for moderate-income households. MidPen has requested that this policy be modified to more closely reflect the objectives of the proposed project. If the policy is modified to reflect the project objectives, the project would be consistent with this measure.²⁶⁷

As discussed above, the project is designed to comply with all land use and zoning plans, policies, and regulations. Impacts related to traffic and emergency access are discussed in Sections 3.10, Transportation, and 3.12, Wildfire. As a result, less than significant impacts to any land use plan, policy, or regulation would occur.

Impact LUP-3: Would the project serve to encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)? (Less than Significant)

The project would include construction of affordable housing on a site identified for affordable housing in the County LCP and General Plan. The project does not include new industry, commercial facilities, or recreation activities. The project is designed to provide housing for people already working on the coast, therefore, it would not encourage off-site development or increase development intensity of already developed areas. Therefore, the project would result in less-than-significant impacts for this topic.

3.8.6 Cumulative Impacts

Impact C-LUP-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to land use and planning? (Less than Significant)

The geographic context for analysis of cumulative impacts related to land use and planning generally includes the San Mateo County coast including the communities of Moss Beach, Montara, El Granada, and Princeton-by-the-Sea.

²⁶⁷ California Coastal Commission. 2021. *Cypress Point Project MidPen Housing. Policy Consistency Analysis*. July 2021. Available at: <https://www.smcgov.org/media/104101/download?inline=>. Accessed July 18, 2023.

There are no applicable General Plan or LCP policies or programs that conflict with the proposed project's creation of affordable housing, either in an individual or a cumulative capacity. In fact, the proposed project implements state, regional, and local goals to increase the supply of affordable housing. The project site is specifically identified for affordable housing in the County's LCP and the PUD-140 zoning district regulations.^{268, 269}

The project would not encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas. The proposed project has a density of 6.5 dwelling units per acre in compliance with the County's LCP Land Use Map. This allowable density was reduced from the original allowable density of 13.6 dwelling units per acre. Therefore, the proposed project density is similar to surrounding neighborhoods. The project is subject to design review guidelines and authority. There are no existing or reasonably foreseeable projects adjacent to the project site that would combine with the proposed project to divide an established community. Therefore, the proposed project's contribution would not be cumulatively considerable. Given this, the proposed project, in conjunction with other planned and approved projects, would result in a less than significant cumulative impact with respect to land use and planning.

²⁶⁸ County of San Mateo Board of Supervisors, 2020.

²⁶⁹ County of San Mateo, 2022.

3.9 NOISE

This section describes the environmental and regulatory setting for noise and vibration. It also describes existing conditions and potential impacts related to noise that would result from the implementation of the proposed project, and mitigation for potentially significant impacts, where feasible. Descriptions and analysis in this section are based on the following noise report:

- Illingworth & Rodkin, Inc. 2018. *Cypress Point Affordable Housing Project Noise and Vibration Assessment*. Completed June 12, 2018.²⁷⁰ (Included as Appendix O)

The noise and vibration assessment was completed in 2018. Considering project updates and changes, an updated 2023 noise memorandum was warranted and analyzed changes to the project that would affect the noise environment, including tree removal activities. Other changes to the project, including modifications to the traffic study, were not considered to be substantial enough to warrant additional analysis.²⁷¹ In 2023, Illingworth & Rodkin completed the following noise assessment memorandum for the proposed tree removal activities:

- Illingworth & Rodkin, Inc. 2023. *Cypress Point Affordable Housing Project Noise Assessment Update of Proposed Tree Removal Activities*. Completed May 19, 2023.²⁷² (Included as Appendix P)

3.9.1 Environmental Setting

3.9.1.1 Noise Fundamentals and Terminology

Noise is commonly defined as sound that is undesirable because it interferes with speech communication and hearing, causes sleep disturbance, or is otherwise annoying. The following acoustical terms are used throughout this analysis:

- Ambient sound level is defined as the composite of noise from all sources near and far (i.e., the normal or existing level of environmental noise at a given location).
- Decibel (dB) is the physical unit commonly used to measure sound levels. Technically, a dB is a unit of measurement that describes the amplitude of sound equal to 20 times the base 10 logarithm of the ratio of the reference pressure to the sound of pressure, which is 20 micropascals (μPa).
- Sound measurement is further refined by using a decibel “A-weighted” sound level (A-weighted decibel [dBA]) scale that more closely measures how a person perceives different frequencies of sound; the A-weighting reflects the sensitivity of the ear to low or moderate sound levels.
- Equivalent noise level (L_{eq}) is the energy average A-weighted noise level during the measurement period.
- The root-mean-squared maximum noise level (L_{max}) characterizes the maximum noise level as defined by the loudest single noise event over the measurement period.

²⁷⁰ Illingworth & Rodkin, Inc. 2018. *Cypress Point Affordable Housing Project Noise and Vibration Assessment*. Completed June 12, 2018.

²⁷¹ Illingworth & Rodkin, Inc. 2023. *Cypress Point Affordable Housing Project Noise Assessment Update of Proposed Tree Removal Activities*. Completed May 19, 2023.

²⁷² Illingworth & Rodkin, Inc., 2023.

- Day-night sound level (L_{dn}) is the A-weighted equivalent sound level for a 24-hour period with an additional 10-dB weighting imposed on the equivalent sound levels occurring during nighttime hours (10:00 p.m.–7:00 a.m.).
- Community noise equivalent level (CNEL) is a measure of the 24-hour average noise level that penalizes noise that occurs during the evening and nighttime hours, when noise is considered more disturbing. To account for this increase in disturbance, 5 dBA is added to the hourly L_{eq} during the evening hours (7:00 p.m.–10:00 p.m.) and 10 dBA is added during the nighttime hours (10:00 p.m.–7:00 a.m.).
- Percentile-exceeded sound level (L_{xx}) describes the sound level exceeded for a given percentage of a specific period. For example, L_{10} is a relatively loud noise exceeded only 10% of the measured time, whereas L_{90} is a relatively quiet sound exceeded 90% of the measured time.
- Noise-sensitive land use is defined as a location most likely to be adversely affected by excessive noise levels, or as a place where quiet is an essential element of their intended purpose.

3.9.1.2 Sound Levels of Representative Sounds and Noises

The U.S. Environmental Protection Agency (EPA) has developed an index to assess noise impacts from a variety of sources. Noise levels in a quiet rural area at night are typically between 32 and 35 dBA. Quiet urban nighttime noise levels range from 40 to 50 dBA. Noise levels during the day in a noisy urban area are frequently as high as 70 to 80 dBA. Noise levels above 110 dBA become intolerable; levels higher than 80 dBA over continuous periods can result in hearing loss. Levels above 70 dBA tend to be associated with task interference. Levels between 50 and 55 dBA are associated with raised voices in a normal conversation.²⁷³ In general, an average person perceives an increase of 3 dBA or less as barely perceptible. An increase of 10 dBA is perceived as a doubling of the sound. Table 3.9-1 provides criteria that have been used to estimate an individual’s perception of increases in sound. Table 3.9-2 presents sound levels for some common noise sources and the human response to those decibel levels.

Table 3.9-1. Average Human Ability to Perceive Changes in Sound Levels

Increase in Sound Level (dBA)	Human Perception of Sound
2–3	Barely perceptible
5	Readily noticeable
10	Doubling of the sound and perceived as twice as loud
20	Dramatic change

Source: Bolt, Beranek and Newman, Inc.²⁷⁴

²⁷³ U.S. Environmental Protection Agency (EPA). 1973. Legal Compilation on Noise, Vol. 1, p. 2-104.

²⁷⁴ Bolt, Beranek and Newman, Inc. 1973. *Fundamentals and Abatement of Highway Traffic Noise*. Report Number PB-222-703. Prepared for U.S. Department of Transportation, Federal Highway Administration. Cambridge, Massachusetts: Bolt, Beranek and Newman, Inc.

Table 3.9-2. Sound Levels of Representative Sounds and Noises

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 miles per hour		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans.²⁷⁵

Attitude surveys are used for measuring the annoyance felt in a community that results from noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that the causes for annoyance include interference with speech, radio, television, house vibrations, and interference with sleep and rest. The CNEL as a measure of noise has been found to provide a valid correlation between noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. When measuring the percentage of the population that is highly annoyed, the threshold for ground vehicle noise is about 50 dBA CNEL. At a CNEL of about 60 dBA, approximately 12% of the population is highly annoyed. When the CNEL increases to 70 dBA, the percentage of the population that is highly annoyed increases to about 25% to 30% of the population. There is, therefore, an increase of about 2% in perceived annoyance for each 1-dBA increase between a CNEL of 60 and 70 dBA. Between a CNEL of 70 and

²⁷⁵ California Department of Transportation (Caltrans). 2013. Technical Noise Supplement (TeNS). Available at: <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf>. Accessed June 2018.

80 dBA, each decibel increase results in an increase of about 3% in the percentage of the population that is highly annoyed.

People appear to respond more adversely to aircraft noise. When the CNEL is 60 dBA, approximately 30% to 35% of the population is believed to be highly annoyed. Each decibel increase to 70 dBA CNEL adds about 3 percentage points to the number of people who are highly annoyed. Above 70 dBA CNEL, each decibel increase results in about a 4% increase in the percentage of the population that is highly annoyed.

3.9.1.3 Fundamentals of Groundborne Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero (i.e., there is no net motion). Several different methods are typically used to quantify vibration amplitude. One method is the peak particle velocity (PPV). The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. In this report, a PPV descriptor with units of millimeters/second or inches/second is used to evaluate construction-generated vibration for building damage and human complaints. Table 3.9-3 displays the reactions of people and the effects on buildings that continuous vibration levels produce.

The annoyance levels shown in Table 3.9-3 should be interpreted with care since vibration may be found to be annoying at much lower levels than those shown, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibrations, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated complaints for vibrations levels where there is very little risk of actual structural damage.

Construction activities can cause vibration that varies in intensity, depending on several factors. The use of pile driving and vibratory compaction equipment typically generates the highest construction-related groundborne vibration levels. Because of the impulsive nature of such activities (i.e., periodic, not continuous), the use of the PPV descriptor has been routinely used to measure and assess groundborne vibration and almost exclusively to assess the potential of vibration to induce structural damage and the degree of annoyance for humans.

The two primary concerns with construction-induced vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Studies have shown that the threshold of perception for average persons is in the range of 0.008 to 0.012 inch/second PPV. Human perception of vibration varies with the individual and is a function of the physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level.

Damage caused by vibration can be classified as cosmetic or structural. Cosmetic damage includes minor cracking of building elements (exterior pavement, room surfaces, etc.). Structural damage involves threats to the integrity of buildings. Damage resulting from construction-related vibration typically results only in cosmetic damage. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher, and there is no consensus as to what amount of vibration may pose a threat for structural damage to the building. Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is in a high state of disrepair and the construction activity occurs immediately adjacent to the structure.

Table 3.9-3. Reaction of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels

Velocity Level PPV (inch/second)	Human Reaction	Effect on Buildings
0.01	Barely perceptible	No effect
0.04	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structure
0.08	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.1	Strongly perceptible	Virtually no risk of damage to normal buildings
0.3	Strongly perceptible to severe	Threshold at which there is a risk of damage to older residential dwellings such as plastered walls or ceilings
0.5	Severe; vibrations considered unpleasant	Threshold at which there is a risk of damage to newer residential structures

Source: Caltrans.²⁷⁶

3.9.1.4 Existing Noise Environment

The project site is located northeast of the Carlos Street and Sierra Street intersection in Moss Beach, California. Figure 3.9-1 shows the project site plan superimposed on an aerial image of the project site vicinity. As shown on Figure 3.9-1, residential land uses (sensitive receptors) bound the project site to the south, east, and north. There are also commercial buildings associated with the Montara Sanitary District to the west opposite California State Highway 1 (Highway 1).

A noise monitoring survey was conducted at the project site between Wednesday, August 30, 2017, and Friday, September 1, 2017. The noise and vibration assessment was completed in 2018.²⁷⁷ The 2023 noise memorandum analyzed changes to the project that would affect the noise environment (such as tree removal). Modifications to the traffic study were not considered to be substantial enough to warrant additional analysis.²⁷⁸ The noise monitoring survey included two long-term noise measurements (LT-1 and LT-2) and three short-term noise measurements (ST-1 through ST-3), as shown in Figure 3.9-1. The long-term measurements were made to quantify the daily trends in noise levels near the westernmost and easternmost site boundaries. The 10-minute short-term measurements were made to quantify specific noise sources affecting the project vicinity and characterize the range of noise levels throughout the project site. The noise environment at the project site and the nearby land uses results primarily from vehicular traffic along Highway 1.

²⁷⁶ Caltrans. 2013. Transportation and Construction Vibration Guidance Manual. Available at: <https://www.contracosta.ca.gov/DocumentCenter/View/34120/Caltrans-2013-construction-vibration-PDF>. Accessed June 2023.

²⁷⁷ Illingworth & Rodkin, Inc., 2018.

²⁷⁸ Illingworth & Rodkin, Inc., 2023.

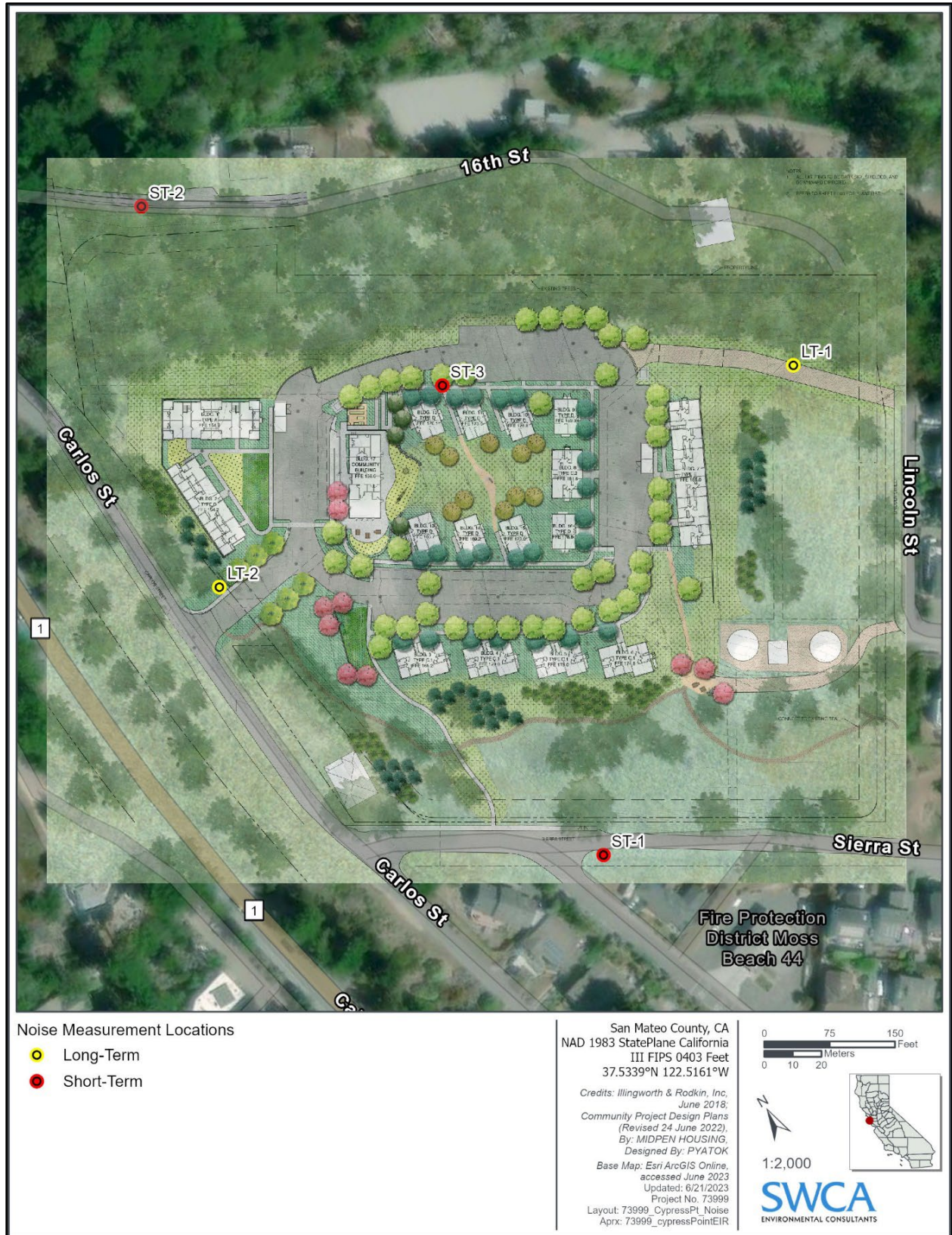


Figure 3.9-1. Noise measurement locations.

Long-term noise measurement LT-1 was made in the northeast corner of the project site, approximately 125 feet west of the Lincoln Street centerline. This noise measurement was made to quantify existing noise levels near the adjacent sensitive receptors. Hourly average noise levels at this location typically ranged from 39 to 55 dBA L_{eq} during the day and from 34 to 47 dBA L_{eq} at night. The average community noise equivalent level on Thursday, August 31, 2017, was 51 dBA CNEL. The daily trend in noise levels at LT-1 is shown in the noise and vibration assessment (see Appendix O).

Long-term noise measurement LT-2 was made along the western boundary of the project site, approximately 60 feet east of the Carlos Street centerline and 200 feet east from the centerline of Highway 1. This noise measurement quantified existing noise levels primarily from vehicular traffic along Highway 1. Hourly average noise levels at this location typically ranged from 48 to 57 dBA L_{eq} during the day and from 41 to 52 dBA L_{eq} at night. The average community noise equivalent level on Thursday, August 31, 2017, was 55 dBA CNEL. The daily trend in noise levels at LT-2 is shown in the noise and vibration assessment (see Appendix O).

Short-term noise measurement ST-1 was made on the southeast corner of the Stetson Street and Sierra Street intersection, approximately 20 feet east of the Stetson Street centerline and approximately 30 feet south of the Sierra Street centerline. The 10-minute average noise level measured at this location between 12:20 p.m. and 12:30 p.m. on Wednesday, August 30, 2017, was 44 dBA L_{eq} . Short-term noise measurement ST-2 was made along 16th Street, approximately 15 feet south of the 16th Street centerline and approximately 260 feet east of the Carlos Street centerline. The 10-minute average noise level measured at this location between 12:40 p.m. and 12:50 p.m. on Wednesday, August 30, 2017, was 53 dBA L_{eq} . Short-term noise measurement ST-3 was made near the center of the project site, approximately 400 feet east of the Carlos Street centerline and approximately 510 feet north of the Sierra Street centerline. The 10-minute average noise level measured at this location between 9:40 a.m. and 9:50 a.m. on Friday, September 1, 2017, was 43 dBA L_{eq} . Table 3.9-4 summarizes the results of the short-term noise measurements.

Table 3.9-4. Summary of Short-Term Noise Measurement Data (dBA)

Noise Measurement Location	L_{max}	L_1	L_{10}	L_{50}	L_{90}	L_{eq}
ST-1: Southeast corner of Stetson Street/Sierra Street intersection. (8/30/2017, 12:20 p.m. to 12:30 p.m.)	51	49	47	43	40	44
ST-2: Along 16 th Street. (8/30/2017, 12:40 p.m. to 12:50 p.m.)	60	58	55	52	47	53
ST-3: Center of project site. (9/1/2017, 9:40 a.m. to 9:50 a.m.)	55	51	46	41	38	43

Source: Noise and Vibration Assessment.²⁷⁹

3.9.2 Regulatory Setting

The State of California and San Mateo County have established regulatory criteria that are applicable to this assessment. The State CEQA Guidelines, Appendix G, are used to assess the potential significance of impacts pursuant to local San Mateo County General Plan policies, Municipal Code standards, or the applicable standards of other agencies. A summary of the applicable regulatory criteria is provided below.

California Environmental Quality Act (CEQA) does not define what noise level increase would be considered substantial. Typically, an increase in the CNEL noise level resulting from the project at noise-

²⁷⁹ Illingworth & Rodkin, Inc., 2018.

sensitive land uses of 3 dBA or greater would be considered a significant impact when projected noise levels would exceed those considered acceptable for the affected land use. An increase of 5 dBA CNEL or greater would be considered a significant impact when projected noise levels would remain within those considered acceptable for the affected land use.

3.9.2.1 2016 California Building Code, Title 24, Part 2

The current version of the California Building Code requires interior noise levels attributable to exterior environmental noise sources be limited to a level not exceeding 45 dBA L_{dn}/CNEL in any habitable room.

3.9.2.2 San Mateo County Mid-Coast Local Coastal Program

The San Mateo County Mid-Coast Local Coastal Program offers qualitative noise goals and objectives, including to: 1) require that engines use muffler systems, 2) minimize noise impacts on surrounding land uses, especially residential, and 3) require that all development minimize the impacts of noise on adjacent properties and the community at large.

3.9.2.3 2014 Final Airport Land Use Compatibility Plan for the Environs of Half Moon Bay Airport

The Half Moon Bay Airport Land Use Compatibility Plan (ALUCP)²⁸⁰ adopted by the San Mateo County Airport Land Use Commission contains standards for projects within the vicinity of Half Moon Bay Airport, which are relevant to this project.

4.2.1.1 Aircraft Noise Contours. Existing (2012) and 20-year future (2032) CNEL aircraft noise exposure contours were prepared for Half Moon Bay Airport and are depicted in Chapter Two of the ALUCP.²⁸¹ The 20-year noise exposure contour is slightly larger due to a projected increase in operations as indicated in the 2013 Airport Layout Plan Narrative Report. Therefore, the 2032 noise exposure contours shall be used for evaluation of airport/land use noise compatibility for the Half Moon Bay Airport.

The 60 dB CNEL noise exposure contour is the threshold for residential noise compatibility for Half Moon Bay Airport.

4.2.1.3 Residential Uses. Residential uses are considered conditionally compatible in areas exposed to noise levels between 60 and 64 dB CNEL only if the proposed use is on a lot of record zoned exclusively for residential use as of the effective date of the ALUCP. In such a case, the detached single-family dwellings must be sound-insulated to achieve an indoor noise level of CNEL 45 dB or less from exterior sources. Residential uses are not considered compatible above 65 CNEL.

3.9.2.4 SAN MATEO COUNTY GENERAL PLAN, CHAPTER 16

San Mateo County offers qualitative noise goals and objectives, including to: 1) strive toward a livable noise environment, 2) reduce noise impacts through noise and land use compatibility and noise mitigation, 3) promote protection of noise-sensitive land uses and noise reduction in quiet areas and noise impact areas, 4) give priority to reducing noise at the source rather than at the receiver, and 5) promote

²⁸⁰ City/County Association of Governments of San Mateo County (C/CAG). 2014. *Final Airport Land Use Compatibility Plan for the Environs of Half Moon Bay Airport*. Available at: <https://ccag.ca.gov/wp-content/uploads/2014/10/HAF-ALUCP-Final.pdf>. Accessed April 20, 2023.

²⁸¹ C/CAG, 2014.

noise reduction through the use of techniques such as site planning, noise barriers, and architectural design and construction.

The San Mateo County Code of Ordinances²⁸² identifies “normal acceptable” exterior noise levels at residential land uses as 60 dB CNEL or less and interior noise levels in residences as 45 dB CNEL or less.

3.9.2.5 San Mateo County Code of Ordinances

4.88.330 – Exterior noise standards.

It is unlawful for any person at any location within the incorporated area of the County to create any noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person which causes the exterior noise level when measured at any single or multiple family residence, school, hospital, church, or public library situated in either the incorporated or unincorporated area to exceed the noise level standards set forth in Table 3.9-5, below.

Table 3.9-5. Receiving Land Use: Single or Multiple Family Residence, School, Hospital, Church, or Public Library Properties

Category	Cumulative Number of Minutes in Any 1-Hour Time Period	Daytime, dBA 7 a.m. to 10 p.m.	Nighttime, dBA 10 p.m. to 7 a.m.
1	30	55	50
2	15	60	55
3	5	65	60
4	1	70	65
5	0	75	70

a) In the event the measured background noise level exceeds the applicable noise level standard in any category above, the applicable standard shall be adjusted in 5 dBA increments to encompass the background noise level.

b) Each of the noise standards specified above shall be reduced by 5 dBA for simple tone noises, consisting primarily of speech or music, or for recurring or intermittent impulsive noises.

c) If the intruding noise source is continuous and cannot reasonably be stopped for a period of time whereby the background noise level can be measured, the noise level measured while the source is in operation shall be compared directly to the noise level standards above.

4.88.340 – Interior noise standards.

No person shall, at any location within the unincorporated area of the County, operate, or cause to be operated within a dwelling unit, any source of sound, or create, or allow the creation of, any noise which causes the noise level when measured inside a receiving dwelling unit with windows in their normal seasonal configuration to exceed the following noise level standards set forth in Table 3.9-6.

Table 3.9-6. Interior Noise Level Standards – Dwelling Unit

Category	Cumulative Number of Minutes in Any 1-Hour Time Period	Daytime, dBA 7 a.m. to 10 p.m.	Nighttime, dBA 10 p.m. to 7 a.m.
1	5	45	40
2	1	50	45
3	0	55	50

²⁸² San Mateo County. 2023. Code of Ordinances Chapter 4.88 Noise Control. Available at: http://smc-ca.elaws.us/code/coor_title4_ch4.88

- a) In the event the measured background noise level exceeds the applicable noise level standard in any category above, the applicable standard shall be adjusted in 5 dBA increments to encompass the background noise level.
- b) Each of the noise standards specified above shall be reduced by 5 dBA for simple tone noises, consisting primarily of speech or music, or for recurring or intermittent impulsive noises.
- c) If the intruding noise source is continuous and cannot reasonably be stopped for a period of time whereby the background noise level can be measured, the noise level measured while the source is in operation shall be compared directly to the noise level standards above.

4.88.360 – Exemptions.

The following activities shall be exempted from the provisions of this chapter:

- a) Any mechanical device, apparatus, or equipment used, related to or connected with emergency machinery, vehicle, or work.
- b) Noise sources associated with demolition, construction, repair, remodeling, or grading of any real property, provided said activities do not take place between the hours of 6:00 p.m. and 7:00 a.m. on weekdays, 5:00 p.m. and 9:00 a.m. on Saturdays, or at any time on Sundays, Thanksgiving, and Christmas.

4.88.380 – Exemption.

Whenever, for the good of the public, a government agency, public utility, or private utility determines a project must be done before 7:00 a.m. or after 6:00 p.m., or on weekends, and so states in its contract, change order(s), or bid documents, said work shall be exempted from this chapter.

3.9.3 Thresholds of Significance

The determinations of significance of project impacts are based on applicable policies, regulations, goals, and guidelines defined by CEQA and the County. Specifically, the project would be considered to have a significant effect on noise if the effects exceed the significance criteria described below:

1. 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.
2. Generation of excessive groundborne vibration or groundborne noise levels.
3. 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 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

Each of these thresholds is discussed under Section 3.9.5, Impacts and Mitigation Measures, below.

3.9.4 Impact Assessment and Methodology

The following impact analysis is based, in part, on the noise and vibration assessment²⁸³ and the noise assessment update of proposed tree removal activities memorandum²⁸⁴ provided as Appendices O and P, respectively. The following analysis evaluates the potential change in the existing noise levels at the project site and surrounding area due to an increase in noise and groundborne vibration during both construction and operation of the project. The evaluation of potential impacts is based on the following General Plan policies.

²⁸³ Illingworth & Rodkin, Inc., 2018.

²⁸⁴ Illingworth & Rodkin, Inc., 2023.

The County of San Mateo's General Plan sets forth noise policies and programs to mitigate potential impacts through both preventative and responsive measures. The applicable General Plan policies were presented in detail in the Regulatory Background section and are summarized below for the proposed project:

- The County's normally acceptable exterior noise level standard is 60 dBA CNEL or less for the proposed residential land use.
- The County's standard for interior noise at the proposed residential land use is 45 dBA CNEL.

While noise level thresholds for temporary construction are not provided in the County's General Plan or Code of Ordinances, there is a threshold of 45 dBA for speech interference indoors. Assuming a 15-dBA exterior-to-interior reduction for standard residential construction, this would correlate to an exterior threshold of 60 dBA L_{eq} at residential land uses. Additionally, temporary construction would likely be considered annoying to surrounding land uses if the ambient noise environment increased by at least 5 dBA L_{eq} over an extended period of time. The temporary construction noise impact would be considered significant if project construction activities exceeded 60 dBA L_{eq} at nearby residences and exceeded the ambient noise environment by 5 dBA L_{eq} or more for a period longer than 1 year.

A significant noise impact would occur if traffic generated by the project would substantially increase noise levels at sensitive receptors in the project vicinity. A substantial increase would occur if: a) the noise level increase with the project is 5 dBA CNEL or greater, where existing noise levels are less than 60 dBA CNEL, or b) the noise level increase with the project is 3 dBA CNEL or greater, where existing noise levels are 60 dBA CNEL or greater. The nearest noise-sensitive receptor is approximately 80 feet to the southeast of the project site, where ambient noise levels are expected to remain below 60 dBA CNEL; therefore, a significant impact would occur if project-generated traffic would permanently increase noise levels by 5 dBA CNEL. For reference, traffic volumes would have to double for noise levels to increase by 3 dBA CNEL.

3.9.5 Impacts and Mitigation Measures

Impact N-1: Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (Less than Significant with Mitigation)

Construction

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time. Project construction is anticipated to occur over an approximate period of 18 months. At the time of the 2018 noise analysis, construction was assumed to last 14 months. It was determined that the ambient noise environment over the longer 18-month construction duration would be unchanged, and new analysis would not be necessary. Results of the Fehr and Peers Transportation Impact Assessment (TIA) Peer Review²⁸⁵ indicate that traffic counts in the project area remain similar to counts measured by Kittelson as part of the Cypress Point TIA.²⁸⁶

²⁸⁵ Fehr and Peers. 2023. *Cypress Point TIA Peer Review*. Included as Appendix R.

²⁸⁶ Kittelson and Associates. 2023. *Cypress Point TIA*. Included as Appendix Q.

Section 4.88.360 of the San Mateo County Code of Ordinances establishes allowable hours of construction between 7:00 a.m. and 6:00 p.m. on weekdays and 9:00 a.m. and 5:00 p.m. on Saturdays. No construction is allowed to occur at any time on Sundays, Thanksgiving, and Christmas. The project proponent will be required to comply with the code limits, and construction activities will only be allowed to occur during allowable hours. Project construction activities would comply with applicable noise standards.

The noise-sensitive receptors to the south of the project site along Carlos Street would have existing daytime ambient noise levels similar to the noise levels recorded at LT-2. Based on these data, the average hourly noise level during daytime construction hours would range from 48 to 57 dBA L_{eq} . The noise-sensitive receptors to the east of the project site would have existing daytime ambient noise levels similar to the noise levels recorded at LT-1. Based on these data, the average hourly noise level during daytime construction hours would range from 39 to 55 dBA L_{eq} .

Construction activities for individual projects are typically carried out in stages. During each stage of construction, there would be a different mix of equipment operating, and noise levels would vary by stage and vary within stages, based on the amount of equipment in operation and the location at which the equipment is operating. Typical construction noise levels at a distance of 50 feet are shown in Tables 3.9-7 and 3.9-8. Table 3.9-7 shows the average noise level ranges, by construction phase, and Table 3.9-8 shows the maximum noise level ranges for different construction equipment. Most demolition and construction noise is within the range of 80 to 90 dBA at a distance of 50 feet from the source.

Construction activities generate considerable amounts of noise, especially during earth-moving activities when heavy equipment is used. The construction of the proposed project would include demolition, site preparation, grading and excavating, paving, and building erection and finishing. The hauling of excavated materials and construction materials would generate truck trips on local roadways as well.

Table 3.9-7. Typical Ranges of Construction Noise Levels (by construction phase) at 50 Feet, L_{eq} (dBA)

	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious, Amusement, Recreation, Store, Service Station		Public Works Roads, Highways, Sewers, Trenches	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

Source: Noise and Vibration Assessment²⁸⁷

I = All pertinent equipment present at site.

II = Minimum required equipment present at site.

All measurements are in dBA.

²⁸⁷ Illingworth & Rodkin, Inc., 2018.

Table 3.9-8. Typical Ranges of Construction Noise Levels (by equipment type) at 50 Feet, L_{max} (dBA)

Equipment Category	L _{max} Level (dBA) ^{†‡}	Impact/Continuous
Arc welder	73	Continuous
Auger drill rig	85	Continuous
Backhoe	80	Continuous
Bar bender	80	Continuous
Boring jack power unit	80	Continuous
Chain saw	85	Continuous
Compressor [‡]	70	Continuous
Compressor (other)	80	Continuous
Concrete mixer	85	Continuous
Concrete pump	82	Continuous
Concrete saw	90	Continuous
Concrete vibrator	80	Continuous
Crane	85	Continuous
Dozer	85	Continuous
Excavator	85	Continuous
Front end loader	80	Continuous
Generator	82	Continuous
Generator (25 kilovolt amperes or less)	70	Continuous
Gradall	85	Continuous
Grader	85	Continuous
Grinder saw	85	Continuous
Horizontal boring hydro jack	80	Continuous
Hydra break ram	90	Impact
Impact pile driver	105	Impact
In situ soil sampling rig	84	Continuous
Jackhammer	85	Impact
Mounted impact hammer (hoe ram)	90	Impact
Paver	85	Continuous
Pneumatic tools	85	Continuous
Pumps	77	Continuous
Rock drill	85	Continuous
Scraper	85	Continuous
Slurry trenching machine	82	Continuous
Soil mix drill rig	80	Continuous
Street sweeper	80	Continuous
Tractor	84	Continuous
Truck (dump, delivery)	84	Continuous
Vacuum excavator truck (vac-truck)	85	Continuous

Equipment Category	L _{max} Level (dBA) [†]	Impact/Continuous
Vibratory compactor	80	Continuous
Vibratory pile driver	95	Continuous
All other equipment with engines larger than 5 horsepower	85	Continuous

Source: National Cooperative Highway Research Program.²⁸⁸

* Measured at 50 feet from the construction equipment, with a “slow” (1 second) time constant.

† Noise limits apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation.

‡ Portable air compressor rated at 75 cubic feet per minute or greater and that operates at greater than 50 pounds per square inch.

Noise-sensitive land uses located near the project site include residences to the south, east, and north. Hourly average noise levels due to construction activities during busy construction periods outdoors would range from about 74 to 88 dBA L_{eq} at a distance of 50 feet. Construction-generated noise levels decrease at a rate of about 6 dBA per doubling of the distance between the source and receptor. The noise-sensitive land uses (residences) are approximately 80 to 270 feet from the project site’s central primary construction area. At these distances, hourly average noise levels during busy construction periods would range from 70 to 84 dBA L_{eq} at the closest residence to the south, from 63 to 77 dBA L_{eq} at the closest residence to the north, and from 59 to 73 dBA L_{eq} at the closest residence to the east. Construction noise levels would be expected to exceed 60 dBA L_{eq} and to exceed the ambient noise environment by at least 5 dBA L_{eq} at noise-sensitive residential uses in the project vicinity for a period exceeding 1 year. Additionally, a noise memorandum analyzed the noise from the proposed tree removal activities. Tree removal activities would last approximately 6 days during the proposed 18-month construction period and would produce noise levels of approximately 84 dBA L_{eq} at 50 feet from the center of the operation, which is within the same range of the anticipated construction noise levels discussed.

To ensure compliance with the noise BMPs, the mitigation measure below would be implemented to reduce construction noise levels emanating from the site, limit construction hours, and minimize disruption and annoyance.

MM-N-1 Implement Construction Noise Best Management Practices

Construction activities shall be conducted in accordance with the provisions of Section 4.88.360 of the San Mateo County Code of Ordinances, which limits construction work to the hours between 7:00 a.m. and 6:00 p.m. on weekdays and 9:00 a.m. and 5:00 p.m. on Saturdays. No construction shall occur at any time on Sundays, Thanksgiving, and Christmas.

The noise impacts of construction equipment may be minimized through modification of the equipment, the placement of equipment on the site, and by imposing constraints on equipment operations. Construction equipment should be well-maintained and used judiciously to be as quiet as possible. The project proponent shall include the following BMPs in all contracts related to project construction activities near sensitive land uses:

- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines should be strictly prohibited.

²⁸⁸ National Cooperative Highway Research Program (NCHRP). 1999. *Mitigation of Nighttime Construction Noise, Vibrations and Other Nuisances*. Available at: https://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_syn_218.pdf. Accessed June 2023.

- Locate stationary noise-generating equipment, such as air compressors or portable power generators, as far as possible from sensitive receptors as feasible. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used to reduce noise levels at the adjacent sensitive receptors. Any enclosure openings or venting shall face away from sensitive receptors.
- Use “quiet” air compressors and other stationary noise sources where technology exists.
- Establish construction staging areas at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.
- Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors.
- Control noise from construction workers’ radios to a point where they are not audible at existing residences bordering the project site.
- Notify all adjacent business, residences, and other noise-sensitive land uses of the construction schedule, in writing, and provide a written schedule of “noisy” construction activities to the adjacent land uses and nearby residences.
- Designate a “disturbance coordinator” who would be responsible for responding to any complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule.

Implementation of **MM-N-1** would reduce construction noise levels from the site, limit construction hours, and minimize disruption and annoyance. With the implementation of these measures and recognizing that noise generated by construction activities would occur over a temporary period, the temporary increase in ambient noise levels would be less than significant.

Operation

Peak-hour traffic volumes along roadways in the project vicinity, as identified in the project’s traffic study, were reviewed to calculate the permanent noise increase attributable to project-generated traffic. As stated in the 2018 Noise Impact Report, a comparison of the volumes expected under the Existing Plus Project scenario and the Existing scenario indicated that the hourly average traffic noise level (L_{eq}) would increase by less than 1 dBA as a result of the project.²⁸⁹ The change in the CNEL would be the same as the change in the peak-hour L_{eq} . The permanent noise level increase due to the project-generated traffic would be less than 1 dBA CNEL at noise-sensitive receptors in the project vicinity. Therefore, the proposed project would not cause a substantial permanent noise level increase at the nearby noise-sensitive receptors. This impact is considered less than significant.

Impact N-2: Would the project generate excessive groundborne vibration or groundborne noise levels? (Less than Significant)

The construction of the project may generate vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams) are used. Construction activities would include demolition, site

²⁸⁹ Illingworth & Rodkin, Inc., 2018.

preparation, grading, excavating, paving, and new building framing and finishing. This analysis assumes the proposed project would not require pile driving, which can cause excessive vibration.

For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 inch/second PPV for buildings structurally sound and designed to modern engineering standards, 0.3 inch/second PPV for buildings that are found to be structurally sound but where structural damage is a major concern, and a conservative limit of 0.08 inch/second PPV for ancient buildings or buildings that are documented to be structurally weakened. Construction activities would have the potential to produce vibration levels of 0.08 inch/second PPV or more at historical structures located within 60 feet of the project site. However, there are no known ancient buildings or buildings that are documented to be structurally weakened within 60 feet of where construction will take place on the project site. Because it is not known if the buildings surrounding the project site are structurally sound and built to modern standards, this analysis conservatively assumes that groundborne vibration levels exceeding 0.3 inch/second PPV would have the potential to result in a significant vibration impact on surrounding residences. For human annoyance, a vibration limit of 0.1 inch/second PPV (see Table 3.9-3), produced by continuous/frequent intermittent sources of construction vibration would be strongly perceptible and would cause human annoyance.

Table 3.9-9 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet. Project construction activities (such as drilling and the use of jackhammers, rock drills, and other high-power or vibratory tools) and rolling stock equipment (tracked vehicles, compactors, etc.) may generate substantial vibration in the immediate vicinity of the activity. At a distance of 25 feet, jackhammers typically generate vibration levels of 0.035 inch/second PPV, and drilling typically generates vibration levels of 0.09 inch/second PPV. Vibration levels would vary depending on soil conditions, construction methods, and equipment used.

The nearest sensitive receptor to the project site is the residence located along Carlos Street approximately 80 feet southeast of the primary construction area at the project site. Construction activities occurring in the outer landscaped areas of the project site would not likely use heavy equipment capable of producing high vibration levels (e.g., vibratory roller). At a distance of 80 feet from the primary construction area, vibration levels attributable to project construction would be up to 0.06 inch/second PPV, which is below the 0.3 inch/second PPV structural threshold and below the 0.1 inch/second PPV human annoyance threshold. Other buildings and sensitive receptors in the project vicinity located further from the project site would also experience construction vibration levels below these thresholds, as vibration attenuates with distance from the source. At these locations, and in other surrounding areas where vibration would not be expected to cause structural damage, vibration levels may still be perceptible.

Table 3.9-9. Summary of Short-Term Noise Measurement Data (dBA)

Equipment		PPV at 25 feet (inch/second)	Approximate L _v at 25 feet (VdB)
Pile driver (impact)	upper range	1.158	112
	typical	0.644	104
Pile driver (sonic)	upper range	0.734	105
	typical	0.170	93
Clam shovel drop		0.202	94
Hydromill (slurry wall)	in soil	0.008	66
	in rock	0.017	75
Vibratory roller		0.210	94

Equipment	PPV at 25 feet (inch/second)	Approximate L _v at 25 feet (VdB)
Hoe ram	0.089	87
Large bulldozer	0.089	87
Caisson drilling	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58

Source: USDOT²⁹⁰

Notes: L_v = Vibration Levels; VdB = vibration decibels

To further reduce the less-than-significant impact, the following **MM-N-2** is recommended.

MM-N-2 Implement Construction Vibration Best Management Practices

Prior to start of ground-disturbing activities, the contractor shall use administrative controls to minimize construction impacts, such as notifying neighbors of scheduled construction activities. During construction activities, the contractor shall schedule construction activities with the highest potential to produce perceptible vibration during the hours with the least potential to affect nearby businesses, so perceptible vibration can be kept to a minimum.

Implementation of **MM-N-2** would further reduce impacts from groundborne vibration or groundborne noise levels. With these mitigation measures and given the intermittent and short duration of the project phases that have the highest potential of producing vibration (use of jackhammers and other high-power tools) these levels of vibration would be considered less than significant. Operationally the project would not generate any groundborne vibration or groundborne noise levels.

Impact N-3: Would the project, if located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? (Less than Significant)

The Initial Study Section 2.9, Hazards and Hazardous Materials provide additional discussion regarding the Half Moon Bay Airport, located approximately 0.9 mile southeast of the project site.²⁹¹ The airport is subject to the ALUCP, as adopted by the City/County Association of Governments (C/CAG) in 2014.²⁹² The ALUCP is designed to encourage compatible land uses in the vicinity surrounding an airport. The project site falls within Zone 7 of the airport influence area, the outermost area indicated in the ALUCP. The aircraft accident risk level in Zone 7 is considered to be low.²⁹³ The project site lies outside the 2032 60 dBA CNEL noise contour. Although noise levels resulting from aircraft would be intermittently audible, they would be less than 60 dBA CNEL at the project site and compatible with the proposed land use. Impacts would be less than significant.

²⁹⁰ United States Department of Transportation (USDOT). 2006. *Transit Noise and Vibration Impact Assessment*. Available at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed June 2023.

²⁹¹ County of San Mateo. 2023. Half Moon Bay Airport. Available at: <https://www.smcgov.org/publicworks/half-moon-bay-airport>. Accessed January 20, 2023.

²⁹² City/County Association of Governments (C/CAG). 2014. *Airport Land Use Compatibility Plan for the Environs of Half Moon Bay Airport*. <https://ccag.ca.gov/wp-content/uploads/2014/10/HAF-ALUCP-Final.pdf>. Accessed January 20, 2023.

²⁹³ C/CAG, 2014.

3.9.6 Cumulative Impacts

Impact C-N-1: *Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to noise? (Less than Significant)*

Cumulative noise or vibration impacts can occur when more than one project is under construction simultaneously or when a project is expected to generate operational noise or vibration at the same time. The potential for cumulative noise impacts to occur is specific to the distance between the related projects and their stationary sources.

Related projects in the vicinity of the proposed project considered in this analysis include construction activities that could occur simultaneously with the construction of the project. Construction-related noise levels from the related projects would be short-term and intermittent. Further, it is assumed that the projects within San Mateo County would be required to comply with the General Plan policies. Noise resulting from cumulative construction activities would be reduced to the extent reasonably and technically feasible through mitigation measures proposed for each project and compliance with locally enforced noise ordinances. Therefore, with the related projects also complying with County requirements regarding construction noise impacts, the proposed project construction-related noise would be less than cumulatively considerable and would be less than significant. Groundborne vibration impacts due to construction activities are generally limited to buildings located close to the construction site. Due to the rapid attenuation of the groundborne vibration and groundborne vibration levels below the 0.3 inch/second PPV structural threshold and below the 0.1 inch/second PPV human annoyance threshold, no cumulative impact concerning groundborne vibration would occur. Cumulative impacts, therefore, would be less than significant and no mitigation is necessary.

3.10 TRANSPORTATION

This section describes the potential transportation-related impacts associated with development of the proposed multi-family residential uses. See Chapter 2, Project Description (including Table 2.5-1, Building Characteristics, and Table 2.5-2, Project Parking), for a detailed description of the proposed project and site plan.

To provide a context for the impact analysis, this section begins with the environmental setting which is a description of the existing physical and operational conditions for the transportation system. Following the setting is the regulatory framework influencing the transportation system and providing the basis for impact significance thresholds used in the impact analysis. This section concludes with the thresholds of significance, impact analysis methodology, findings, and, where applicable, recommended mitigation measures.

The project applicant retained Kittelson & Associates to prepare a Traffic Impact Analysis and Mitigation Plan (TIA) to evaluate potential transportation impacts related to the proposed project and identify mitigation measures. Kittelson & Associates' Cypress Point TIA was drafted in August 2019 in conformance with the requirements of San Mateo County's Local Coastal Program (LCP)²⁹⁴ such as LCP Policy 2.52 and the City/County Association of Governments (C/CAG) Congestion Management Program (CMP)²⁹⁵ and Transportation Demand Management (TDM) Policies.²⁹⁶ Kittelson & Associates' Cypress Point TIA has been subsequently updated as the project evolved through public engagement and County review processes as described below:

- The 2019 Cypress Point TIA was updated on July 2022 as part of the project applicant's coastal development permit (CDP) process under the County's LCP and the County's environmental review process under the California Environmental Quality Act (CEQA) Guidelines. The 2019 Cypress Point TIA was updated to include information on vehicle miles traveled (VMT) addressing Senate Bill (SB) 743 and changes in the CEQA Guidelines to shift from level of service (LOS) to VMT to determine transportation impacts.
- In December 2022, San Mateo County retained Fehr & Peers to independently review Kittelson & Associates' 2022 Cypress Point TIA and to prepare a VMT Analysis. Fehr & Peers completed the TIA Peer Review and VMT Analysis in May 2023. The peer review effort resulted in an update to the 2022 Cypress Point TIA. The 2022 Cypress Point TIA was updated in May 2023 with completion of the peer review process (2023 Cypress Point TIA) and can be found in Appendix Q of this EIR. The Fehr & Peers' 2023 TIA Peer Review and VMT Analysis can be found in Appendix R of this EIR.

Kittelson & Associates' 2023 Cypress Point TIA conforms to the requirements and standards set forth in the County's LCP and the State CEQA Guidelines and includes detailed information on both CEQA (plan/program policy consistency, safety, emergency access, and mitigation) and non-CEQA (level of service) topics. It incorporates information developed through the peer review process and references Fehr & Peers' 2023 TIA Peer Review and VMT Analysis on topics such as traffic count updates, trip generation, and VMT. The Fehr & Peers' 2023 TIA Peer Review and VMT Analysis includes a summary of the peer review process and the quantitative VMT analysis requested by the County.

²⁹⁴ County of San Mateo Planning and Building Department. 2023a. Local Coastal Program. Available at: Local Coastal Program | County of San Mateo, CA (smcgov.org). Accessed May 15, 2023.

²⁹⁵ C/CAG. 2021a. Congestion Management Program Index. Available at: <https://ccag.ca.gov/programs/transportation-programs/congestion-management/>. Accessed May 24, 2023.

²⁹⁶ C/CAG. 2023a. TDM Program. Available at: <https://ccagtdm.org/about/>. Accessed May 23, 2023.

The transportation analysis and mitigation measure recommendations in Kittelson & Associates' 2023 Cypress Point TIA and Fehr & Peers' 2023 TIA Peer Review and VMT Analysis guide the CEQA analysis as well as the County's final determination of transportation-related conditions of approval that would be required to support conformance with policies outside of the CEQA. This section is largely based on the information found in these background reports (see EIR Appendices Q and R).

3.10.1 Environmental Setting

This section describes the immediate project setting with a focus on the existing transportation system and operating conditions in the study area. Figure 3.10-1 illustrates the existing regional and local roadway system, the public transit network and stops, the bicycle and recreational trail networks, and nearby land uses. It also shows the transportation study area and study intersections.

The approximately 11-acre project site is located in Moss Beach within the Midcoast area of unincorporated San Mateo County. The vacant site is located within the coastal zone on the inland (or east) side of Highway 1 (State Route [SR]-1) adjacent to an existing residential area of Moss Beach on the urban side of the urban rural boundary established by the LCP.²⁹⁷ The site is bounded by vacant land and residences along 16th Street to the north; residences to the east along Lincoln and Buena Vista streets; residences to the south along Sierra, Stetson, and Carlos streets; vacant land along Carlos Street to the west (toward SR-1); and an adjacent residence at the northeast corner of Carlos and Sierra streets. The project site is north of Moss Beach's commercial area along the east side of SR-1 near California Avenue (e.g., Coastside Market grocery store).

The project site is within the Cabrillo Unified School District service area. The closest public elementary schools are Farallone View, El Granada, and Hatch in Montara, El Granada, and Half Moon Bay, respectively. The closest private elementary schools are the Upgrade Children's Center, the Wilkinson School, and the Sea Crest School in Princeton, El Granada, and Half Moon Bay, respectively. The closest intermediate and high schools are in Half Moon Bay -- Manuel F. Cunha Intermediate School and Half Moon Bay High School. The project site is within 1.4 miles of Farallone View Elementary School, 0.5 mile of Moss Beach Park, and 0.8 mile of the Seton Coastside Medical Center.

²⁹⁷ County of San Mateo Planning and Building Department. 2023a. Local Coastal Program, Map 1.4 - Midcoast Land Use Plan, pg. 1.34. Available at: [download \(smcgov.org\)](https://www.smcgov.org). Accessed June 2023.



Figure 3.10-1. Regional and local transportation network.

3.10.1.1 Existing Circulation System

3.10.1.1.1 EXISTING ROADWAY NETWORK

The primary mode of travel on the San Mateo County coast is the private vehicle with regional access provided from SR-1 and State Route 92 (SR-92). SR-92 is a major east-west state highway that serves regional traffic between SR-1, U.S. Interstate-280, and the San Mateo Bridge. SR-1 and SR-92 are the only roads that provide connections to other parts of the County. Most of the coastal communities connect to SR-1 but do not connect with each other.

Descriptions of each roadway facility are presented below.

- **SR-1** is a major north-south state highway that facilitates regional travel along California's Pacific coastline and provides the only access to Moss Beach. It connects Moss Beach to destinations in the north, such as San Francisco, and to the south, such as Half Moon Bay. This portion of SR-1 is also known as the Cabrillo Highway. SR-1, from the San Francisco County Line to the Santa Cruz County Line, is part of the County's Congestion Management Plan roadway network. In the vicinity of the project site, SR-1 is a two-lane highway with one lane each for both the northbound and southbound directions with left-turn lanes at the intersections of 16th, Carlos, and Etheldore/Vallemar streets, and California Avenue/Wienke Way. SR-1 has a posted speed limit of 45 miles per hour (mph) in Moss Beach.
- **Carlos Street** is an approximately 20- to 28-foot-wide, two-lane, two-way local street with no center striping that runs north-south through Moss Beach parallel to SR-1. Primary access to the project site is provided via a proposed driveway off Carlos Street north of Sierra Street. North of the project site, Carlos Street can be directly accessed from SR-1. From the south, access to Carlos Street is from SR-1 via Etheldore Street or California Avenue. Near the project site, Carlos Street has no pavement markings or on-street parking. Further south in Moss Beach's commercial area near California Avenue, Carlos Street includes on-street parking on its east side. The posted speed limit is 25 mph.
- **Sierra Street** is a two-lane, two-way local street that extends east from Carlos Street to Vermont Street and provides residential access across Moss Beach. The posted speed limit is 15 mph.
- **Stetson Street** is a two-lane, two-way local street that extends south from Sierra Street near the project site to Sunshine Valley Road and provides access across Moss Beach. The posted speed limit is 15 mph.
- **Etheldore Street** is a two-lane, two-way local street that connects Moss Beach to SR-1. It extends in a southeasterly direction from the intersection with SR-1 through Moss Beach and intersects with SR-1 further south. The posted speed limit is 15 mph. Vallemar Street is on the west side of SR-1 and is a continuation of Etheldore Street.
- **California Avenue** is an east-west, two-lane, two-way local street that crosses SR-1 south of the project site, providing SR-1 access to much of the residential area of Moss Beach. The posted speed limit is 15 mph. Wienke Way spurs off California Avenue on the west side of SR-1.

3.10.1.1.2 EXISTING PEDESTRIAN AND BICYCLE NETWORK

A comprehensive network of pedestrian facilities and bikeways that are safe, convenient, and accessible for both commuter and recreational travel is an essential part of the County's transportation infrastructure. The existing pedestrian and bicycle network conditions are as follows:

- SR-1 in Moss Beach has 8-foot-wide shoulders for bicyclists, but there are no defined walkways on either side of the roadway and just one marked crosswalk of SR-1 at Virginia Avenue.

- Carlos Street between SR-1 and Etheldore Street has no sidewalks or bicycle infrastructure (e.g., shared roadway bicycle pavement markings). Further south in Moss Beach’s commercial area near California Avenue, Carlos Street includes a sidewalk on the east side and shared roadway bicycle pavement markings.
- Sierra Street features a sidewalk on its north side between Carlos and Stetson streets but not on its south side or on any other roadway segments. Sierra Street has no bicycle infrastructure.
- Stetson Street between Sierra Street and California Avenue includes a sidewalk on its north side and no sidewalk on its south side. Stetson Street has no bicycle infrastructure.
- Etheldore Street east of SR-1 between Carlos Street and California Avenue includes an intermittent sidewalk on its south side and no sidewalks on its north side. Etheldore Street has no sidewalks or bicycle infrastructure beyond California Avenue.
- California Avenue east of SR-1 between Carlos and Buena Vista streets includes a paved sidewalk on its north side and no sidewalks on its south side. California Avenue has no bicycle infrastructure.

In summary the existing pedestrian network in the vicinity of the project site is discontinuous. In some locations, intermittent sidewalks require maintenance, while in other locations sidewalks are absent altogether. Where sidewalks are absent, pedestrians walk along paved or unpaved shoulders or in the roadway (e.g., Carlos Street). Additionally, there are no marked crosswalks at any of the study intersections on the local roadway network or on SR-1 where it intersects with Carlos Street, Etheldore Street, and California Avenue. Crossing distances at SR-1 for pedestrians and cyclists vary from about 60 feet between intersections to about 80 feet at these intersections. Further, the existing bicycle network does not include any Class I (Bike Paths) or Class II (Bike Lanes) facilities on adjacent roadways outside of the shared roadway markings noting the Class III (Bike Routes) bicycle facility on Carlos Street (see Sections 3.10.2.2.2, State, and 3.10.2.4.1, San Mateo County General Plan, for state and county bicycle facility definitions).

3.10.1.1.3 EXISTING PUBLIC TRANSIT NETWORK

The San Mateo County Transit District is the administrative body for most public transit and transportation programs in San Mateo County, including SamTrans bus service which provides fixed route bus service throughout San Mateo County, including the Midcoast area. The project site is served by SamTrans Routes 117 and 18. Both routes have stops in Moss Beach primarily along SR-1 but also along Etheldore Street. Descriptions of the routes and schedules with the closest stops to the project site are provided below. Service detail²⁹⁸ All routes and stops are shown on Figure 3.10-1, above.

SamTrans Route 117

Route 117 operates daily between Linda Mar Park & Ride in Pacifica and Miramontes Point Road/Moonridge Apartment along SR-1 south of Half Moon Bay, with limited service to the town of Pescadero. Service is provided from 4:57 a.m. to 9:32 p.m. on weekdays and 5:05 a.m. to 9:34 p.m. on weekends with 60-minute headways on weekdays and weekends. The closest northbound bus stops are located at the southeast corner of SR-1/14th Street (0.23 mile north of the project site in the Montara), at the southeast corner of California Avenue/Etheldore Street (0.47 mile south of the project site in Moss Beach), and at southeast corner of Etheldore Street/Sunshine Valley Road (0.62 mile south of the project site within Moss Beach). The closest southbound bus stops are located at SR-1/16th Street (0.11 mile

²⁹⁸ San Mateo County Transit District. 2023a. SamTrans Schedules and Maps. Available at: <https://www.samtrans.com/schedulesmaps>. Accessed May 23, 2023.

from the project site), California Avenue/Etheldore Street (0.47 mile from the project site), and at Etheldore Street/Sunshine Valley Road (0.62 mile south of the project site).

SamTrans Route 18

Route 18 is a school-oriented route that serves Half Moon Bay High School and Cunha Intermediate School. It operates on weekdays only along Sunshine Valley Road and SR-1 between Miramontes Point Road and Moonridge Apartments along SR-1 south of Half Moon Bay and SR-92 to Main Street/7th Street in Montara. It also provides school day service between Cunha Intermediate School and Main Street/7th Street in the mornings and afternoons. In the Moss Beach area, the route travels primarily along Sunshine Valley Road with bus stops provided (in both the northbound and southbound direction) at Etheldore Street/Sunshine Valley Road (0.62 mile south of the project site).

SamTrans Bus Stop Conditions

The northbound bus stop located at SR-1/14th Street on the east side of SR-1 (0.23 mile north of project site) is a signed pole with a widened concrete shoulder and an adjacent paved sidewalk. It is not served by a sidewalk, crossing, or any infrastructure to provide walking access to and from the project site to the bus stop, i.e., along the east side of Carlos Street and the east side of SR-1.

The southbound bus stop located at SR-1/16th Street on the west side of SR-1 (0.11 mile west of project site) is a signed pole at the foot of a steep slope with a few feet of shoulder. It is not served by a sidewalk, crossing, or any infrastructure to provide walking access to and from the project site to the bus stop. Site constraints such as topography limit the scope of potential bus stop improvements.

The northbound and southbound bus stops located at the southeast and northwest corners of California Avenue/Etheldore Street are signed poles (0.47 mile south of project site) and are not connected to a sidewalk. The northbound bus stop is located at the foot of a slope with a few feet of graveled shoulder. The southbound bus stop is located on a flat graveled shoulder. The most direct walking paths between the project site and these stops are along Carlos Street and Etheldore Street to California Avenue and along Sierra Street, Stetson Street, and California Avenue to Etheldore Street. However, there is no walking path of travel with continuous sidewalks, crossings, or other supporting infrastructure. The walking path of travel with the most complete sidewalk infrastructure is along Sierra Street, Stetson Street, Kelmore Street, and California Avenue to Etheldore Street.

3.10.2 Regulatory Setting

A variety of federal, state, regional, and local plans, legislation, and policy directives provide guidelines for the safe operation of streets and transportation facilities in the unincorporated community of Moss Beach. While the County has primary responsibility for the maintenance and operation of local transportation facilities within its jurisdiction, including in Moss Beach, County staff work on a continual basis with responsible federal, state, and regional agencies, such as the California Department of Transportation (Caltrans), as well as others, to maintain, improve, and balance the competing transportation needs of the community and the region.

3.10.2.1 Federal

There are no federal regulations related to transportation that are applicable to the proposed project.

3.10.2.2 State

3.10.2.2.1 CALIFORNIA SENATE BILL 743

In 2013 Senate Bill (SB) 743 was signed into law with the intent to “more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions” and required the Office of Planning and Research (OPR) to identify new metrics for identifying and mitigating transportation impacts within the CEQA. As a result, in December 2018, the California Natural Resources Agency certified and adopted updates to the State CEQA Guidelines. The revisions included new requirements related to the implementation of SB 743 and identified vehicle miles traveled (VMT) per capita, VMT per employee, and net VMT as new metrics for transportation analysis under CEQA (as detailed in Section 15064.3[b]). Beginning July 1, 2020, the newly adopted VMT criteria for determining significance of transportation impacts were implemented statewide.

SB 743 modifications, which are now in effect, change the focus of transportation impact analysis in CEQA from measuring impacts to drivers, to measuring the impact of driving. The change replaces level of service (LOS) with VMT and provides a review of land use and transportation projects that would help reduce future VMT growth. In September 2020, the County drafted Interim Change to Vehicle Miles Traveled as Metric to Determine Transportation Impacts under CEQA Analysis; these have yet to be approved (see Section 3.10.3.2.2, Methodology).

3.10.2.2.2 CALIFORNIA DEPARTMENT OF TRANSPORTATION

Caltrans manages the operation of state highways, including SR-1, which passes through Moss Beach and from which the project site is visible and can be accessed via the Carlos Street, Etheldore Street, and California Avenue intersections. Caltrans maintains annual traffic data on state highways and interchanges within San Mateo County. Caltrans no longer uses LOS (consistent with SB 743) and now relies on VMT and safety to evaluate transportation impacts. Caltrans published the Vehicle Miles Traveled-Focused Transportation Impact Study Guide (Caltrans TIS Guide) in May 2020, which replaced the prior guide reliant on LOS. The Caltrans TIS Guide notes that lead agencies have the discretion to choose VMT thresholds and methods, and generally conforms to OPR guidance.²⁹⁹

Caltrans also issued Traffic Safety Bulletin 20-02-R1 in December 2020 providing guidance for intergovernmental review for potential safety impacts of land use projects and plans affecting the State Highway System (SHS). The bulletin describes the procedure for Caltrans staff to review potential safety impacts and develop mitigation measures as appropriate. Additionally, “Complete Streets” is a Caltrans policy directive intended to provide safe mobility for all users, including bicyclists and pedestrians, and is a consideration during Caltrans’ interdepartmental review of projects that could affect the SHS. According to Director’s Policy 37, signed on December 7, 2021, it is Caltrans’ organizational priority to encourage and maximize walking, bicycling, transit, and passenger rail as a strategy to not only meet state climate, health, equity, and environmental goals but also to foster socially and economically vibrant, thriving, and resilient communities.³⁰⁰

The Caltrans Highway Design Manual provides the design information and procedural steps necessary to develop and evaluate engineering plans among other potential roadway design interventions or

²⁹⁹ Caltrans. 2020. Vehicle Miles Traveled-Focused Transportation Impact Study Guide. Available at: <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-05-20-approved-vmt-focused-tisg-a11y.pdf>. Accessed May 23, 2023.

³⁰⁰ Caltrans. 2021. Director’s Policy 37 – Complete Streets. Available at: <https://dot.ca.gov/-/media/dot-media/programs/sustainability/documents/dp-37-complete-streets-a11y.pdf>. Accessed May 23, 2023.

improvements associated with traffic congestion and the provision of safe mobility for pedestrians and bicyclists. The Caltrans Highway Design Manual classifies bikeways into four categories:³⁰¹

- **Class I Bikeway (Bike Path):** a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bikeway (Bike Lane):** a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bikeway (Bike Route):** signage only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Class IV Bikeway (Separated Bikeway):** also known as a cycle track, a Class IV Bikeway is for the exclusive use of bicycles and includes a physical separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

The proposed project would add traffic to SR-1 at Carlos Street, which is a location with a known line-of-sight safety traffic safety concern. As a result, potential mitigation measures may include changes in the Caltrans right-of-way. Therefore, the Caltrans Highway Design Manual and Complete Streets policy are considered in the analysis of the proposed project.

3.10.2.3 Regional

3.10.2.3.1 PLAN BAY AREA: STRATEGY FOR A SUSTAINABLE REGION

The Metropolitan Transportation Commission (MTC), the San Francisco Bay Area's regional transportation planning agency, adopted Plan Bay Area 2050 in October 2021, which identifies how the Bay Area will meet its GHG emission reduction targets.³⁰² Plan Bay Area is also considered the Association of Bay Area Governments (ABAG)/MTC Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). In accordance with SB 743, Plan Bay Area included elements designed to encourage the type of land use development to meet three primary objectives. First, roadway LOS could not be considered an environmental impact under the CEQA. Second, it introduced changes to VMT per capita as a determinant of environmental impact. Third, the use of VMT as an environmental impact in CEQA is considered a mechanism for achieving state and regional greenhouse gas (GHG) emission reduction goals.

3.10.2.4 County

3.10.2.4.1 SAN MATEO COUNTY GENERAL PLAN

The San Mateo County General Plan (County General Plan) was adopted in 1986 and serves as a guide for both land development and conservation within the unincorporated areas of the county.³⁰³ Policies

³⁰¹ Caltrans. 2022. Highway Design Manual, 7th Edition. Chapter 60. Available at: <https://dot.ca.gov/programs/design/manual-highway-design-manual-hdm>. Accessed May 23, 2023.

³⁰² Association of Bay Area Governments/MTC. 2021. Plan Bay Area 2050. Available at https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf. Accessed May 23, 2023.

³⁰³ County of San Mateo. 1986. General Plan. Available at: <https://www.smegov.org/planning/general-plan>. Accessed May 15, 2023.

within the County General Plan relevant to transportation and circulation and applicable to the proposed project include, but are not limited to, the following:

- **Urban Road Improvements** (*County General Plan, Chapter 12, Item 12.16*): In urban areas, where improvements are needed due to safety concerns or congestion, support the construction of interchange and intersection improvements, additional traffic lanes, turning lanes, redesign of parking, channelization, traffic control signals, or other improvements.
- **Financing Local Road Improvements** (*County General Plan, Chapter 12, Item 12.20*): Utilize all available techniques for funding local road improvements in unincorporated areas, including assessment districts, developer contributions, and County road funds. Ensure road improvements are consistent with adopted land use plans and area plans.
- **Local Circulation Policies** (*County General Plan, Chapter 12, Item 12.21*): In unincorporated communities, plan for providing:
 - Maximum freedom of movement and adequate access to various land uses;
 - Improved streets, sidewalks, and bikeways in developed areas;
 - Minimal through traffic in residential areas;
 - Routes for truck traffic which avoid residential areas and are structurally designed to accommodate trucks;
 - Access for emergency vehicles; and
 - Bicycle and pedestrian travel.
- **Local Road Standards** (*County General Plan, Chapter 12, Item 12.31*): Allow for modification of road standards for sub-areas of the County, which respond to local needs and conditions as identified in area plans.
- **Pedestrian Paths** (*County General Plan, Chapter 12, Item 12.48*): Encourage the provision of safe and adequate pedestrian paths in new development connecting to activity centers, schools, transit stops, and shopping centers.

The County General Plan encourages the use of walking, bicycling, and use of transit through its Transportation Policies and, more specifically, its Complete Streets goals and objectives.³⁰⁴ The goal of the Complete Streets program is to:

“Create and maintain Complete Streets that serve all categories of transportation users and goods, providing safe, efficient, comfortable, and convenient travel along all streets through an integrated, balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the General Plan.” (*County General Plan, Chapter 12, Item 12.7*)

Among the goals and objectives of the Complete Streets program applicable to the proposed project is the guidance to “incorporate Complete Streets infrastructure into existing streets to improve the safety and convenience of users, accommodate all transportation users, and increase connectivity across jurisdictional boundaries and for existing and anticipated areas of development” (*County General Plan, Chapter 12, Item 12.31*).

³⁰⁴ County of San Mateo, 1986.

The County's pedestrian and bicycle network is defined by the following functional classes of pedestrian and bicycle facilities consistent with the 2021 C/CAG San Mateo County Comprehensive Bicycle and Pedestrian Plan and the Unincorporated San Mateo County Active Transportation Plan (*County General Plan, Chapter 12, Item 12.60*):

- **Pedestrian Path:** A path that is physically separated by distance or barrier from a roadway. Pedestrian paths are different than sidewalks and are typically constructed in conjunction with Class I Bicycle Paths.
- **Sidewalk:** A pedestrian-dedicated paved walkway located adjacent to roadways.
- **Class I – Bicycle Path:** Class I facilities are multi-use facilities that provide a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II – Bicycle Lane:** Class II facilities provide a striped and signed lane for one-way bicycle travel within the paved area of a roadway. The minimum width for bike lanes ranges between 4 and 6 feet depending on the edge of roadway conditions (curbs) and speed. Bike lanes are demarcated by a 6-inch white stripe, signage, and pavement legends and depending on right-of-way width include a buffer zone between the bike lane and adjacent travel lane.
- **Class III – Bicycle Route:** Class III facilities provide signs for shared use with motor vehicles within the same travel lane on a street or highway. Bike routes may be enhanced with warning or guide signs and shared lane marking pavement stencils. While Class III routes do not provide a measure of separation from traffic, they have an important function in providing continuity to the bikeway network. Depending on location (e.g., on streets in residential neighborhoods), Class III routes are also identified as bicycle boulevards which prioritize bicycle through-travel, while calming motor vehicle traffic and maintaining relatively low motor vehicle volumes. Treatments vary depending on context, but often include elements of traffic calming, including traffic diverters, speed attenuators such as speed humps or chicanes, pavement markings, and signs.
- **Class IV – Cycle Track or Separated Bikeway:** Class IV facilities provide a right-of-way designated exclusively for bicycle travel adjacent to a roadway that is protected from vehicular traffic. Types of separation include, but are not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

3.10.2.4.2 CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY, COUNTYWIDE TRANSPORTATION PLAN

The City/County Association of Governments of San Mateo County (C/CAG) is a Joint Powers Authority whose membership includes the County of San Mateo and 20 cities. In 2017, the C/CAG Board of Directors adopted the San Mateo Countywide Transportation Plan 2040 (2017 CTP)³⁰⁵ to provide San Mateo County with a long-range, comprehensive transportation plan for identifying and resolving transportation issues. The 2017 CTP was also adopted by all of the cities within the County, SamTrans, and the San Mateo County Transportation Authority (SMCTA).

The 2017 CTP is a planning document that envisions, directs, and prioritizes the transportation needs of San Mateo County by analyzing various transportation-related elements, such as roadways, transit services, land use, transportation systems management, and pricing. Transportation planning objectives and policies include integration of transportation and land use plans for sustainable commuting with surrounding counties in the Bay Area. Specific goals of the 2017 CTP pertaining to the proposed project

³⁰⁵ C/CAG. 2017. San Mateo Countywide Transportation Plan 2040. Available at: <https://ccag.ca.gov/programs/countywide-transportation-plan/>. Accessed May 24, 2023.

include integrating transportation and land use plans and decisions in support of a more livable and sustainable San Mateo County and enhancing safety and efficiency on the countywide roadway network to foster comfortable, convenient, and multimodal mobility.

3.10.2.4.3 CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY, CONGESTION MANAGEMENT PROGRAM

Per the requirements of Propositions 111 and 108, every urban county within California designates a Congestion Management Agency (CMA) to prepare and implement a Congestion Management Program (CMP) that includes all jurisdictions within the urban county. The CMA is also responsible for updating the CMP at least every two years. C/CAG is designated as the CMA for San Mateo County and works on multiple issues that affect quality of life in general. Passage of Assembly Bill 2419 allowed existing CMAs to opt to discontinue activities; however, C/CAG voted to continue to participate in and adopt a CMP. The first CMP for the County was adopted by C/CAG in 1991. It has continued to be updated and amended on a biennial basis.³⁰⁶

The purpose of the CMP is to identify strategies to respond to future transportation needs, develop procedures to alleviate and control congestion, and promote countywide solutions. C/CAG has developed LOS standards for 53 roadway segments (along State Routes [SR-] 1, 35, 82, 84, 92, 109, and 114; U.S. Highway 101; Interstates [I-] 280 and 380; and along major roadways on Geneva Avenue, Mission Street, and Bayshore Boulevard) and 16 intersections (mostly along SR-82/El Camino Real and SR-84) throughout the County.

The CMP is required to be consistent with the Metropolitan Transportation Commission (MTC) planning process that includes regional goals, policies, and projects for the Regional Transportation Improvement Program (RTIP). The 2021 CMP Update established a new “Companion Monitoring Network” consisting of 10 roadway segments and 17 intersections not in the CMP where C/CAG desired to see additional congestion monitoring. The San Mateo CMP roadway system is consistent with Plan Bay Area 2050 (i.e., the RTP/SCS) adopted in October 2021.³⁰⁷

In 2000, C/CAG adopted a policy that provided guidelines for analyzing the impacts of land use decisions made by local jurisdictions. The C/CAG Land Use Impact Analysis Program Policy, also known as the Transportation Demand Management (TDM) Policy, is implemented during the environmental review process and, as of January 1, 2022, applies to developments that generate 100 average daily trips.^{308, 309} Previously, the threshold for local jurisdictions to notify C/CAG of new development projects was 100 net peak hour trips, or those proposed as part of a General Plan Amendment. The policy requires that proposed projects develop a TDM plan that includes strategies that have the capacity to reduce the demand for single-occupancy vehicle trips; thus, the guidelines also provide a menu of TDM measures and corresponding trip reduction credits. For small residential projects (less than 500 average daily trips), such as the proposed project, the target trip reduction percentage is 25%. The County implements the C/CAG TDM Policy as part of the development review and permitting process, including for County projects in the Coastal Zone. The C/CAG TDM Policy does not preclude local jurisdictions from applying their established traffic impact analysis regulations or ordinances during the course of local development review nor does it preclude local jurisdictions from applying lawfully required analysis required by CEQA.

³⁰⁶ C/CAG, 2021a.

³⁰⁷ ABAG/MTC, 2021.

³⁰⁸ C/CAG, 2023a.

³⁰⁹ C/CAG, 2021a. Congestion Management Program Appendices. Available at: https://ccag.ca.gov/wp-content/uploads/2022/03/CMP-Appendix-2021_Final.pdf. Accessed May 23, 2023.

3.10.2.4.4 SAN MATEO COUNTY TRANSPORTATION AUTHORITY SHORT-RANGE HIGHWAY PLAN: 2021–2030

The SMCTA Short-Range Highway Plan (SRHP)³¹⁰ establishes a strategy for directing Measure A and Measure W sales tax revenues toward street and highway improvements in San Mateo County aimed at reducing commute corridor congestion; enhancing bicycle, pedestrian and public transit modes of travel; enhancing safety; meeting local mobility needs; and making regional connections including regional transit connection. The SMCTA updates the SRHP on a 10-year cycle, with the last version prepared for the 2011 through 2020 time period. The 2021 update to the SRHP includes a policy framework for making investment decisions. The SRHP incorporates the Measure A goals along with the new Measure W core principles and is the policy foundation for making street and highway program investment decisions. The purpose of the SRHP is to identify and program funds for projects that will remove bottlenecks along the most congested commute corridors and that will improve supplemental roadway projects throughout the County. The SRHP uses the adopted Strategic Plan 2020-2024 evaluation criteria, which was used to score projects during the 2021 Highway Program Call for Projects. To be eligible to compete in the Highway Program Call for Projects, a project must be included in the Countywide Improvement Plan. The SRHP also allows the SMCTA to sponsor projects of countywide significance. Measure W funds are currently programmed to initiate the planning phase for recommended improvements along SR-1, i.e., Moss Beach State Route 1 Congestion and Safety Improvements Project (Section 3.10.2.5.1, Local Coastal Program).^{311, 312}

3.10.2.4.5 REIMAGINE SAMTRANS

In February 2022, SamTrans completed Reimagine SamTrans³¹³—a comprehensive, multi-phase systemwide operational analysis and redesign of the SamTrans bus system initiated in June 2019. The SamTrans Board adopted the new SamTrans network on March 3, 2022, with implementation beginning in August 2022. The goals of the project were to prioritize equity through prioritization of buses to high-need communities from underused and duplicate routes, to improve efficiency by creating faster, reliable service through more direct and consolidated routes, and to expand connections by providing expanded all-day service, and more service to transit hubs and job centers. Changes to existing bus service were laid out in a series of actions as follows:

- Improving frequency
- Offering services later and on weekends
- Modifying routes by providing more direct routes and reducing duplication of service
- Improving access with new routes and connections
- Providing a new on-demand service
- Discontinuing service on select routes

Changes relevant to the proposed project include increased service frequency on Route 117 (from service every 60 minutes on weekdays and every 120 minutes on weekends to service every 60 minutes, 7 days a

³¹⁰ San Mateo County Transportation Authority. 2021. Short-Range Highway Plan: 2021-2030. Available at: <https://www.smcta.com/media/3716/download?inline>. Accessed May 23, 2023.

³¹¹ County of San Mateo Planning and Building Department. 2023c. Moss Beach State Route 1 Congestion and Safety Improvements Project. Available at: <https://www.smcgov.org/planning/moss-beach-sr-1>. Accessed May 23, 2023.

³¹² San Mateo County Transit District. 2023b. Transportation Authority Board of Directors Meeting Agenda Item #11(b), December 2, 2021. Available at: <https://www.smcta.com/media/20082/download>. Accessed May 23, 2023.

³¹³ San Mateo County Transit District. 2022. Reimagine SamTrans - Final Report. Available at: <https://www.samtrans.com/about-samtrans/reimagine-samtrans>. Accessed May 23, 2023.

week) and Route 18 (from service every 45 minutes during morning peak hours and every 60 minutes during afternoon peak hours to service every 30 minutes during morning and afternoon peak hours). In addition, Route 117 revisions would include the removal of low ridership segments off SR-1, e.g., to Sunshine Valley Road (in the project site vicinity), 6th Street, Canada Cove, and Pescadero.

Additionally, on-demand service (SamTrans Ride Plus) has been introduced in the Half Moon Bay Area in a zone serving El Granada and Half Moon Bay from Miramontes Point Road on the south, Capistrano Road on the north, and the Pacific Ocean to the west.³¹⁴ The zone extends inland to cover development on the east side of SR-1 and operates from 8:00 a.m. to 5:00 p.m., 7 days a week. The goal is to better connect people to grocery stores, community services, and Route 294 with service to other parts of the county in a rural area of San Mateo County with limited road access that has historically been hard to serve with regularly scheduled bus service.

3.10.2.4.6 SAMTRANS BUS STOP IMPROVEMENT PLAN

SamTrans is in the beginning stages of the development of the SamTrans Bus Stop Improvement Plan.³¹⁵ The Bus Stop Improvement Plan includes an evaluation of the existing conditions at the more than 1,800 bus stops throughout the SamTrans service district. SamTrans staff are currently engaged in a data collection effort and public and stakeholder engagement process to inform their efforts to improve the accessibility and comfort of their bus stops.

3.10.2.4.7 CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY, SAN MATEO COUNTY COMPREHENSIVE BICYCLE AND PEDESTRIAN PLAN

The San Mateo County Comprehensive Bicycle and Pedestrian Plan (CBPP)³¹⁶ was adopted by the C/CAG on June 10, 2021. The 2021 CBPP update builds off the 2011 CBPP and 2000 San Mateo County Comprehensive Bicycle Route Plan. The 2021 CBPP is intended to coordinate and guide the provision of all bicycle- and pedestrian-related plans, programs, and projects within the county. The C/CAG, in partnership with the SMCTA and in coordination with the County and the 20 cities within the county, has developed the CBPP to identify bike routes of countywide significance, to serve as a guide to the incorporated cities regarding bikeway policies and design standards, and to identify focused areas for pedestrian improvements and related design guidance. The CBPP also provides guidance on countywide priorities for future funding. As a Countywide Bicycle and Pedestrian Plan, it focuses on providing bikeway connections between the incorporated cities, adjacent counties, and major regional destinations within the County. The CBPP includes the following planned Class I, Class II, and Class III bikeways in the vicinity of the project site:³¹⁷

- Class I Multi-Use Path (the Parallel Trail) along SR-1 and near Carlos Street between 11th Street in Montara and Miramontes Point Road south of Half Moon Bay
- Class II Bicycle Boulevard along Carlos Street between Vermont Street and SR-1

³¹⁴ San Mateo County Transit District. 2023c. SamTrans Public Transit On-Demand Index. Available at: <https://www.samtrans.com/microtransit-samtrans-ride-plus>. Accessed August 2023.

³¹⁵ San Mateo County Transit District. 2023d. SamTrans – Bus Stop Improvement Plan. Available at: <https://www.samtrans.com/Projects/bus-stop-improvement-plan>. Accessed May 23, 2023.

³¹⁶ C/CAG. 2021b. San Mateo County Comprehensive Bicycle and Pedestrian Plan 2021. Available at: <https://ccag.ca.gov/programs/transportation-programs/active-transportation/>. Accessed May 23, 2023.

³¹⁷ C/CAG. 2023. C/CAG Countywide Bicycle and Pedestrian Plan Interactive Map. Available at: [C/CAG Interactive Bicycle and Pedestrian Plan Map](https://ccag.ca.gov/programs/transportation-programs/active-transportation/)<https://ccag.ca.gov/programs/transportation-programs/active-transportation/>. Accessed May 23, 2023.

- Class II Bicycle Lane along SR-1 between 1st Street in Montara and Mirada Road in El Granada, which is the primary bike route extending from the north end of the Midcoast area south through Half Moon Bay.

Additionally, the San Mateo County Safe Routes to School is administered by C/CAG and the San Mateo County Office of Education. This program intends to increase the number of students able to walk and bike to school. Funds are available to school districts for education, enforcement and promotion/encouragement activities; evaluation and project coordination; and for small capital projects.

3.10.2.4.8 UNINCORPORATED SAN MATEO COUNTY ACTIVE TRANSPORTATION PLAN

On February 9, 2021, the San Mateo County Board of Supervisors approved the first Active Transportation Plan for unincorporated San Mateo County: the Unincorporated San Mateo County Active Transportation Plan (SMC ATP).³¹⁸ The SMC ATP is a comprehensive framework to guide the development of active transportation projects and programs for walking, bicycling and other forms of human-powered movement for people of all ages and abilities throughout unincorporated County communities.

The purpose of the SMC ATP is to build on the potential for walking and bicycling by defining a community-driven vision for the future of active transportation in unincorporated San Mateo County and developing a framework for the of implementation of projects, programs, and policies to turn the vision into a reality. It identifies a vision of a connected multimodal network for bicyclists and pedestrians, with improved safety and complete streets; all oriented around the following five goals that promote access, safety, equity, mode share, and flexibility.

- Goal 1: Comprehensive Countywide System of Facilities for Bicyclists and Pedestrians
- Goal 2: More People Riding and Walking for Transportation and Recreation
- Goal 3: Improved Safety for Bicyclists and Pedestrians
- Goal 4: Complete Streets and Routine Accommodation of Bicyclists and Pedestrians
- Goal 5: Strong Local Support for Non-Motorized Transportation

The SMC ATP presents a backbone network of bicycle facilities to connect the region, including a bicycle and pedestrian trail that would be developed on the east side of SR-1, i.e., the SR-1 Multimodal Parallel Trail. The SR-1 Multimodal Parallel Trail is a planned Class I Bicycle and Pedestrian Path on the east side of SR-1 between Montara to Half Moon Bay that currently consists of Class I and Class II bikeways. In the project vicinity the SR-1 Multimodal Parallel Trail would be located between SR-1 and Carlos Street. Additionally, the California Coastal Trail, which is planned to be located adjacent to the Pacific Coast, is part of a larger statewide effort to provide a network of public trails along the entire California coastline. The California Coastal Trail consists of Class I, Class II, and Class III bikeways, and unpaved gravel trails. Recommendations in Connect the Coastside: The San Mateo County Midcoast Comprehensive Transportation Management Plan and the SMC ATP seek to create a robust network of Coastside bicycle facilities. The following projects are recommended in Moss Beach:

- Class III Bikeway on California Ave from Tierra Alta Street to North Lake Street
- Class III Bikeway on full length of Etheldore Street

³¹⁸ County of San Mateo Office of Sustainability. 2021. Unincorporated San Mateo County Active Transportation Plan. Available at: <https://www.smcsustainability.org/livable-communities/active-transportation/unincorporated-smc-active-transportation-plan>. Accessed May 23, 2023.

- Class III Bikeway on Vallemar Street, Juliana Avenue and Wienke Way
- Class III Bikeway on Carlos Street between 16th Street and Vermont Avenue
- Class I Bikeway on SR-1 between 16th and Etheldore streets

3.10.2.5 Local

3.10.2.5.1 LOCAL COASTAL PROGRAM

The California Coastal Commission (CCC) implements the California Coastal Act and oversees development within the Coastal Zone in partnership with local governments. The County's Local Coastal Program (LCP) was approved by the County and certified by the CCC in late 1980. In order to certify the LCP, the CCC must determine that the land use plan conforms with the requirements of Chapter 3 of the Coastal Act, and that the zoning and implementation provisions are consistent with, and adequate to carry out, the land use plan policies. After LCP approval/certification in late 1980, the CCC's permitting authority over most new development was transferred to the County, granting the County the authority to issue coastal development permits for development that is found to be consistent with the LCP. Additionally, the CCC reviews and approves amendments to previously certified LCPs. The County's LCP was last updated on August 8, 2012, and is a subset of the County General Plan; the two documents are internally consistent.^{319, 320} Among the policies of the LCP applicable to the proposed project are:

- **LCP Policy 2.42 (Roadway Capacity Limits)** limits the expansion of roadways (i.e., additional lanes) to a capacity which does not exceed that needed to accommodate commuter peak period traffic when buildout of the Land Use Plan occurs, and which does not exceed existing and probable future capacity of water and sewage treatment and transmission capacity or otherwise conflict with other policies of the LCP.
- **LCP Policy 2.43 (Desired Level of Service)** states that "in assessing the need for road expansion, consider Service Level D acceptable during commuter peak periods and Service Level E acceptable during recreation peak periods."
- **LCP Policy 2.44 (Route 1 and Route 92 Phase I Capacity Limits)** states under subsection (b) that improvements to SR-1 are to be limited to the following:
 - slow vehicle lanes on uphill grades
 - the following operational and safety improvements within the existing alignment or lands immediately adjacent:
 - elimination of sharp curves
 - lane widening
 - lane reconfiguration
 - acceleration/deceleration lanes
 - wider shoulders to allow passage for bicycles, emergency vehicles
 - signals at major intersections
 - additional traffic lanes in the Midcoast area as depicted on Map 1.3, provided the additional lanes comply with all other applicable policies of the LCP, including, but not limited to, sensitive habitat and wetland protection policies
 - construction of a tunnel for motorized vehicles only behind Devil's Slide through San Pedro Mountain.

³¹⁹ County of San Mateo, 2013.

³²⁰ County of San Mateo, 1986.

- **LCP Policy 2.50 (Improvements for Bicycle and Pedestrian Trails)** requires that Caltrans protect and make available right-of-way to allow for bicycle and pedestrian trail development, commensurate with the C/CAG Bicycle and Pedestrian Plan and California Coastal Trail Plan; promote development of the Multimodal Parallel Trail; and promote safe pedestrian crossings of SR-1.
- **LCP Policy 2.52 (Traffic Mitigation for all Development in the Urban Midcoast)** requires applicants for new development that generates any net increase in vehicle trips on SR-1 and/or SR-92 to develop and implement a traffic impact analysis and mitigation plan and to submit the traffic impact analysis and mitigation plan and associated analyses and implementation measures prior to the approval of any Coastal Development Permit application that triggers this requirement. Furthermore, it includes subsection (a) which suggests TDM measures set forth by C/CAG to offset new traffic generated by a project to the extent feasible. The 2023 Cypress Point TIA and the C/CAG TDM Checklist for a Residential (Multi-Family) Land Use: Small Project meet this requirement (see EIR Appendix Q [2023 Cypress Point TIA] and Appendix 9 of the 2023 TIA [C/CAG TDM Checklist]).
- **LCP Policy 2.53 (Transportation Management Plan)** required the County to develop a comprehensive transportation management plan to address the cumulative traffic impacts of residential development, including single-family, two-family, multi-family, and second dwelling units, on roads and highways in the entire Midcoast, including the City of Half Moon Bay. Plan elements include a cumulative traffic analysis based on LCP buildout and an evaluation of the feasibility of developing an in-lieu fee traffic mitigation program and the expansion of public transit, including buses and shuttles. See below for a discussion of the Connect the Coastside: The San Mateo County Midcoast Comprehensive Transportation Management Plan (Connect the Coastside).³²¹
- **LCP Policy 2.56 (Increased Service for Coastside Residents)** encourages continued County coordination with SamTrans to expand service. See Section 3.10.2.4.6 for a discussion of ReImagine SamTrans and recently implemented improvements along the coastside.

LCP Policy 2.52 complements C/CAG's TDM Policy (see Section 3.10.2.4.3) and LCP Policy 2.53 requiring development of a transportation management plan (Connect the Coastside). As noted, the County's LCP requires that developments in the coastal zone evaluate impacts to LOS for coastal access and emergency vehicles and develop a traffic impact analysis and mitigation plan. The LCP generally states that prior to approval of a CDP the traffic impact analysis and mitigation plan must include: 1) traffic mitigation measures (to the extent feasible), 2) enough information for the County to assess if the proposed mitigation measures offset new vehicle trips generated by the project to the extent feasible, and 3) the project's cumulative impacts combined with other reasonably foreseeable future projects. Traffic mitigation measures (LCP Policy 2.52a) could include shuttle services for employees of the development, subsidizing transit, providing bicycle storage, and others. C/CAG coordinates countywide congestion management and recommends TDM measures, and the potential number of trips offset as part of its biannual Congestion Management Program.³²²

In addition to roadway-related LCP policies, the County's LCP identifies the California Coastal Trail, a continuous interconnected public trail system along the coastline, as a means of encouraging active transportation. The California Coastal Trail is anticipated to cross SR-1 at 16th Street, and further plans are identified in Connect the Coastside for creating safer and more continuous walking and bicycling facilities.

³²¹ County of San Mateo Planning and Building Department. 2022. Connect the Coastside Final Plan. Available at: <https://www.smcgov.org/planning/connect-coastside>. Accessed May 23, 2023.

³²² C/CAG, 2023b. TDM Measures. Available at: <https://ccagtdm.org/measures/>. Accessed May 23, 2023.

Highway 1 Safety and Mobility Study (Phases 1 and 2)

In coordination with Caltrans, the Local Government Commission, and other San Mateo County departments, the San Mateo County Planning and Building Department led a community-based planning study focused on short and long-term transportation improvements along the Midcoast portion of SR-1. The plan includes a series of transportation improvements along the SR-1 corridor including pedestrian crossings, raised medians, and left-turn lanes to improve vehicular, pedestrian and bicycle mobility. Phase 1 of the study, which focuses on Miramar, El Granada and Princeton, was adopted by the San Mateo County Board of Supervisors in 2009. Phase 2, which focuses on Moss Beach and Montara, was adopted by the San Mateo County Board of Supervisors in 2012.³²³

Connect the Coastside: The San Mateo County Midcoast Comprehensive Transportation Management Plan

The County's LCP includes a policy requiring preparation of a Transportation Management Plan for the entire Midcoast that addresses the transportation impacts of future development (LCP Policy 2.53). Connect the Coastside: The San Mateo County Midcoast Comprehensive Transportation Management Plan (Connect the Coastside) meets the requirements of LCP Policy 2.53 and was adopted by the San Mateo County Board of Supervisors on July 26, 2022. Connect the Coastside represents the culmination of a planning process initiated in 2014.³²⁴ It is a community-based transportation plan prepared to address the mobility needs of Midcoast residents and visitors, to protect coastal resources and public access, and improve the livability for Midcoast residents. Connect the Coastside identifies programs and improvements for the SR-1 and SR-92 corridors to improve mobility and accommodate the Midcoast's future transportation needs. Future implementation of Connect the Coastside may lead to amendments to various County regulations, including proposed amendments to the County's LCP. The community input and technical data gathered in the Highway 1 Safety and Mobility Study (Phases 1 and 2), among other planning processes, informed the development of Connect the Coastside.³²⁵

Connect the Coastside's study area includes land area south of the Tom Lantos Tunnels (Devil's Slide) to the southern terminus of Half Moon Bay, including areas west and east of SR-1 (to Interstate 280), as well as land areas proximate to SR-92, from SR-1 to I-280 and involved the 1) assessment of existing development and transportation conditions in the study area; 2) projections for cumulative development and associated transportation system impacts; 3) identification of potential infrastructure, policies, programs, and plans to mitigate impacts based on the analysis and building upon previous planning efforts, like the Highway 1 Safety and Mobility Study (Phases 1 and 2), the Highway 1 Congestion and Safety Improvement Project, the Coastside Access Study, and SamTrans Coastside Transit Study; and 4) development and refinement of recommendations through extensive and iterative public engagement.

A key purpose of Connect the Coastside is to define priority projects that will then be eligible to apply for funding. It identifies a diverse range of road, highway and trail improvements within the following categories:

- Bicycle and walking trails
- Roadways and intersections

³²³ County of San Mateo Planning and Building Department. 2023b. Transportation Plans. Available at: <https://www.smcgov.org/planning/transportation-plans>. Accessed May 23, 2023.

³²⁴ County of San Mateo Planning and Building Department. 2022. Connect the Coastside Final Plan, pp. 33-34. Available at: <https://www.smcgov.org/planning/connect-coastside>. Accessed May 23, 2023.

³²⁵ County of San Mateo Planning and Building Department. 2022. Connect the Coastside Final Plan, Chapter 3 (Planning Context), pp. 27-37, and Appendix C-Planning and Policy Context. Available at: <https://www.smcgov.org/planning/connect-coastside>. Accessed July 2023.

- Pedestrian routes
- Transit facilities and services
- Parking

See Table 3.10-1 for a list of recommended projects relevant to the proposed project including those at 16th, Carlos Street, and California Avenue and along SR-1 that will be more fully developed as part of the Moss Beach State Route 1 Congestion and Safety Improvements Project (see below). Connect the Coastside also recommends projects, e.g., the Multimodal Parallel Trail, which would improve the multimodal circulation system in the vicinity of the project site and within Moss Beach and along the Midcoast. Recommended projects will need to be incorporated into local, regional, and state transportation plans such as the San Mateo County Transportation Authority Strategic Plan, the San Mateo County Congestion Management Plan, the County of San Mateo’s Five-Year Capital Improvement Plan (CIP), Plan Bay Area 2050, and the State Transportation Improvement Program to secure funding.

Table 3.10-1. Connect the Coastside Project Recommendations

Project Name	Project No.	Description
SR-1 Side Street Stop Signs	R2	Install stop signs and pavement markings at all side streets of SR-1 where missing.
16th Street/SR-1 Intersection Control	R5	Intersection control, with preliminary recommendation of single-lane roundabout.
California Avenue/SR-1 Intersection Control	R6	Intersection control, with preliminary recommendation of single-lane roundabout.
Carlos Street Realignment to 16th Street	R9	Realign north terminus of Carlos Street at SR-1 to connect to 16th Street.
Carlos Street Traffic Calming	R10	Striping, signage, and completion of missing sidewalk, with conversion to one-way southbound with parking reoriented facing south on Carlos Street to accommodate the Parallel Trail and calm traffic in central Moss Beach.
New and Improved Crossings of SR-1 and SR-92	Pe1	Improve existing and add new pedestrian crossings on SR-1 and SR-92 including marked crossings with flashing beacons, overcrossing of SR-1/south of Carlos Street, and improve SR-1/Coronado.
SR-1 Multimodal Parallel Trail	Pe2	Connected walking and bicycling facilities along the east side of SR-1 through connected Class I Path, sidewalks, and Class III Bike Route, with marked crossings of intersecting streets with the path.
SR-1 Sidewalks in Moss Beach and Montara	Pe4	Add sidewalks in central Montara and Moss Beach in front of businesses located on SR-1 and marked crossings of side-street intersections with SR-1.
Central Moss Beach Bicycle and Pedestrian Improvements	Pe5	Add sidewalk on west/north sides on Etheldore Street (north of California Avenue) where missing and on California Avenue (south of Etheldore Street) to connect to existing sidewalks. Add Class III Bike Route on California Avenue from Etheldore Street to SR-1.
Montara Safe Routes to School	Pe6	Various improvements to make it easier to walk and bike to Farallone View Elementary School, including sidewalks, Class III Bike Routes, improved crossings, and stop signs.
SR-1 Bikeway	B1	Bikeway designation on SR-1 of Class II Bike Lanes.
Transit Stop Improvements	T1	Ensure all bus stops have an ADA accessible pad, with additional amenities at higher use stations including benches, shelters, and lighting.
Increased Midcoast Bus Service	T3	Work with the SamTrans, Commute.org, and other partners to provide additional bus service on existing lines serving the Midcoast, new commute express service between Half Moon Bay and the Colma BART station, and to align transit schedules to support student travel needs.

Source: Connect the Coastside 2022, Table 29 and p. 107; Fehr & Peers 2023 (see EIR Appendix R).

Moss Beach State Route 1 Congestion and Safety Improvements Project

The County and the SMCTA, in cooperation with Caltrans, initiated the Moss Beach State Route 1 Congestion and Safety Improvements Project (Moss Beach/SR-1 Project) in 2022.³²⁶ The Project Initiation phase for the Moss Beach/SR-1 Project began in September 2022 and is funded by Measure W funds from the SMCTA and San Mateo County matching funds.³²⁷ Per Caltrans, the appropriate project initiation document to be prepared is a Project Study Report-Project Development Support (PSR-PDS). The PSR-PDS is expected to be complete in November 2023. Assuming additional funding is secured, the Caltrans standard timeline for project buildout (project initiation, preliminary engineering, environmental review/project approval, final design, and construction) shows that the Moss Beach/SR-1 Project could be operational in 2030.

The Moss Beach/SR-1 Project is an outgrowth of the land use and transportation planning processes in the Midcoast area that resulted in the vision and multimodal transportation framework of Connect the Coastside. The project's purpose is to encourage residents and visitors to walk, bike, and use transit within Moss Beach and along the Midcoast. It is important to note that there is only one marked crossing of SR-1 in a 6-mile stretch of the unincorporated Midcoast area including Moss Beach and the intersections closest to the project site.

The Moss Beach/SR-1 Project recommendations for improvements on SR-1 in unincorporated Moss Beach from 16th Street to Cypress Avenue and surrounding area will be focused on improving traffic flow, intersection safety, and vehicular operations along and across SR-1, and increasing SR-1 crossing opportunities for pedestrians and cyclists as part of a series of multimodal improvements on, or parallel to, SR-1. Because the Moss Beach/SR-1 Project would be informed by previous planning and transportation studies, including Connect the Coastside and the SMCTA's August 2015 Preliminary Planning Study for Highway 1 Congestion and Safety Improvement Project, it is expected that roundabouts and traffic signals with pedestrian crossings and other associated infrastructure at the SR-1 intersections with 16th Street and Carlos Street would be evaluated as project alternatives, along with a potential consolidation of the 16th Street and Carlos Street intersection. Thus, potential improvements may include new controlled intersections (either single-/multi-lane roundabouts or traffic signals) at 16th Street, California Avenue, and Cypress Avenue; intersection consolidation (e.g., 16th Street and Carlos Street); dedicated turn lanes; high-visibility crosswalks; a new sidewalk on the west side of SR-1 from California Avenue to Cypress Avenue; bus stop improvements for SamTrans Route 117; Class 2 bike lanes; and a Class 1 multi-use path on the east side of SR-1 (along SR-1 and Carlos Street).

3.10.3 Impacts Analysis and Mitigation Measures

3.10.3.1 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, as adapted by the County for the San Mateo County Initial Study Environmental Evaluation Checklist, a project would be considered to have a significant effect on transportation if the effects exceed the significance criteria described below.

1. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities, and parking.

³²⁶ County of San Mateo Planning and Building Department. 2023c. Moss Beach State Route 1 Congestion and Safety Improvements Project. Available at: <https://www.smcgov.org/planning/moss-beach-sr-1>. Accessed May 23, 2023.

³²⁷ San Mateo County Transit District. 2023b. Transportation Authority Board of Directors Meeting Agenda Item #11(b), December 2, 2021. Available at: <https://www.smcta.com/meetings/2021/12/ta-board-directors>. Accessed May 23, 2023.

2. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), Criteria for Analyzing Transportation Impacts.
3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
4. Result in inadequate emergency access.

Each of these thresholds is discussed under Section 3.10.3.3, below. Significance criteria 1 is related to potential conflicts or inconsistencies with applicable programs, plans, ordinances, or policies identified by the County as addressing the circulation system, i.e., limit coastal access by impeding the buildout of the local sidewalk, bicycle, and recreational trail networks or other improvements described in Connect the Coastside, the County's LCP, or the Moss Beach/SR-1 Project. Significance criteria 2 is related to the implementation of VMT as the primary performance metric for determining transportation impacts under the CEQA. Significance criteria 3 is related to the potential for new and/or exacerbated hazard conditions for people walking, driving, bicycling, or taking transit based on land use trip generation characteristics (i.e., vehicle type) and changes to roadway network (e.g., new or modified segments and/or intersections). Significance criteria 4 is related to site design and provision of adequate site access and paths of travel for emergency service providers, e.g., fire (see **Section 3.12, Wildfire** for a discussion of evacuation routes). In addition, an analysis of construction and a parking assessment are provided for informational purposes.

3.10.3.2 Impact Assessment and Methodology

3.10.3.2.1 PROPOSED DEVELOPMENT CHARACTERISTICS

As discussed in EIR **Chapter 2, Project Description**, the project site is located in the coastal zone on the urban side of the urban rural boundary established by the County's LCP³²⁸ and is defined as an infill site per the County's LCP Policies document,³²⁹ zoned for Medium Density Residential (a downzone completed through the 2022 LCP Amendment and upheld on appeal), and designated as a priority development site for affordable housing in the County's LCP and the County's current Housing Element³³⁰ (and the public review draft for the 2023–2031 cycle).³³¹ The project sponsor proposes the development of 71 residential units, an associated 3,460-square-foot community building, a 142-space parking lot with driveway access from Carlos Street (including six accessible spaces and 57 electric vehicle charging infrastructure-ready spaces), an interconnected system of paths and outdoor open spaces/recreation areas, an improved sidewalk on Sierra Street, and eight short-term and 36 long-term (i.e., indoor and secure) bicycle parking spaces. The residential development would include a mix of one-, two-, and three-bedroom units. All, except the building manager's unit, would be affordable to households earning less than 80% of the Area Median Income. The project sponsor has also committed to an agreement with the County Department of Housing to set aside 52 of the 70 proposed units as Local Preference Units (about 74% of the units), where eligible households are those that include at least one member who lives or works in the City of Pacifica, the City of Half Moon Bay, and/or the unincorporated County region between the City of Pacifica and the City of Half Moon Bay (Greater Moss Beach Region). In addition, the project sponsor has committed to the implementation of the following required and

³²⁸ County of San Mateo Planning and Building Department. 2023. Local Coastal Program, Map 1.4 - Midcoast Land Use Plan. Available at: [download \(smcgov.org\)](https://www.smcgov.org). Accessed June 2023.

³²⁹ County of San Mateo County Planning and Building Department, 2013. Local Coastal Program Policies. June 18. Available at: [County of San Mateo | Local Coastal Program Policies 2013](https://www.smcgov.org). Accessed June 2023.

³³⁰ County of San Mateo County Planning and Building Department, 2015. Housing Element, 2014-2022, December 29. Available at: [San Mateo County Housing Element \(smcgov.org\)](https://www.smcgov.org). Accessed July 2023.

³³¹ County of San Mateo County Planning and Building Department, 2022. San Mateo County Housing Element Update 2023-2031 Index. Available at: [San Mateo County Housing Element Update 2023-2031 | County of San Mateo, CA \(smcgov.org\)](https://www.smcgov.org). Accessed July 2023.

additional TDM measures identified in the C/CAG TDM Checklist for a Residential (Multi-Family) Land Use: Small Project (see Appendix 9 [C/CAG TDM Checklist] in EIR Appendix Q [2023 Cypress Point TIA]):

- M2 – Orientation, Education, Promotional Programs and/or Materials (*Required*)
- M3 – TDM Coordinator/Contact Person (*Required*)
- M6 – Transit or Ridesharing Passes/Subsidies (*Required*)
- M8 – Secure Bicycle Storage (*Required*)
- M9 – Design Streets to Encourage Bike/Ped Access (*Required*)
- M11 – Family-Supportive Amenities (*Additional*)
- M22 – Active Transportation Subsidies (*Additional*)
- M23 – Gap Closure (*Additional*)
- M24 – Bike Repair Station (*Additional*)

In addition, the project sponsor has committed to promote walking and bicycling with better connections to the local pedestrian and bicycle network via sidewalk improvements/new construction on the rights-of-way (north side of Sierra Street and east side of Carlos Street) adjacent to the project site. Further improvements that the project sponsor has committed to implementing are site design improvements that would enhance driver, pedestrian, and bicyclist safety through provision of signage and more visible pavement markings and street crossings at the new project driveway at Carlos Street and on-site loop road/parking area and wider on-site paths to promote separation from on-site vehicle circulation/parking (see EIR **Chapter 2, Project Description**).

3.10.3.2.2 METHODOLOGY

The C/CAG’s 2021 CMP³³² requires local jurisdictions to notify C/CAG at the beginning of the CEQA process of all development applications or land use policy changes that are expected to generate a net 100 average daily trips on the CMP roadway network. Preparation of a traffic impact analysis for land use projects that generate more than 500 trips per day or 100 peak hour trips at an intersection is required by the County.³³³

Vehicle Miles Traveled (VMT)

According to CEQA Guidelines Section 15064.3(a), “VMT is generally the most appropriate measure of transportation impacts.” It defines VMT as “the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b) (2), below (regarding roadway capacity), a project’s effect on automobile delay shall not constitute a significant environmental impact.”

CEQA Guidelines Section 15064.3(b) lists the following criteria for analyzing transportation impacts:

1. Land Use Projects. VMT exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within 0.5 mile of either an existing major transit stop or a

³³² C/CAG. 2021a. Congestion Management Program Appendices. Available at: https://ccag.ca.gov/wp-content/uploads/2022/03/CMP-Appendix-2021_Final.pdf. Accessed May 23, 2023.

³³³ County of San Mateo Department of Public Works. 2013. Traffic Impact Study Requirements prepared by County of San Mateo Department of Public Works, Roadway Services, September 1. Available at: <https://www.smcgov.org/media/46076/download?inline=>. Accessed August 2023.

stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease VMT in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

2. **Transportation Projects.** Transportation projects that reduce, or have no impact on, VMT should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.
3. **Qualitative Analysis.** If existing models or methods are not available to estimate the VMT for the particular project being considered, a lead agency may analyze the project qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.
4. **Methodology.** A lead agency has discretion to choose the most appropriate methodology to evaluate a project's VMT, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's VMT and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate VMT and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

As explained on the County of San Mateo Public Works website:³³⁴

Effective July 1, 2020, the County of San Mateo has transitioned to using Vehicle Miles Traveled (VMT) instead of Level of Service (LOS) as the metric for determining transportation-related impacts under CEQA.

The County is in the process of developing new thresholds of significance to identify transportation-related impacts under the CEQA as required by SB 743 for the unincorporated areas within the county. In September 2020, County staff submitted interim VMT analysis criteria to the County Board of Supervisors.³³⁵ The interim VMT analysis criteria are based on County modifications to OPR's SB 743 recommendations. The County's interim changes from LOS to VMT also include a list of project types that are exempt from detailed quantitative VMT analysis if County screening criteria are met. One such screening criterion is for projects that provide 100% affordable housing. Per the County's interim guidance, 100% affordable housing projects typically generate lower VMT than market-rate housing if on an infill site in an urban/suburban area of the county. The proposed project is a 100% affordable housing project that qualifies as an urban infill site under the LCP and would therefore be exempt under the County's interim VMT Guidance. However, the project sponsor requested that a quantitative VMT analysis be conducted to be conservative and estimate the effectiveness of project characteristics such as the Local Preference Agreement, the C/CAG TDM Checklist measures, and other potential TDM measures because of the limited public transit options along the Midcoast and known safety hazards for drivers, pedestrians, and bicyclists traveling along and across SR-1 in the Moss Beach area.

³³⁴ County of San Mateo Department of Public Works. 2020. San Mateo County Traffic Impact Analysis Requirements. Available at: <https://www.smcgov.org/publicworks/traffic-impact-analysis-requirements>. Accessed May 23, 2023.

³³⁵ County of San Mateo Department of Public Works. 2020. Interdepartmental Memo, Change to Vehicle Miles Traveled as Metric to Determine Transportation Impacts under CEQA Analysis. Available at: <https://www.smcgov.org/media/46081/download?inline=>. Accessed May 23, 2023.

The County has discretion to set its significance threshold based on the baseline VMT or a reduction of the baseline VMT. For residential projects, OPR recommends using significance thresholds that compare a project's home-based trip VMT per resident to the baseline home-based trip VMT per resident. For office projects, OPR recommends using significance thresholds that compare a project's home-based VMT per worker to the home-based baseline VMT per worker. Baseline VMT by resident and worker are generated using the C/CAG VMT Estimation Tool which uses data from the C/CAG-VTA San Mateo County Travel Demand Model and existing travel patterns. The County's VMT significance thresholds are as follows:

- Residential – 15% below the baseline VMT (countywide average for baseline year 2015) for home-based VMT per resident
- Office – 15% below the baseline VMT (countywide average for baseline year 2015) for home-based work VMT per worker
- Transportation projects must have a net increase of 0 total VMT

Level of Service

Revisions to CEQA transportation analysis requirements do not preclude the application of local general plan policies, municipal and zoning codes, conditions of approval, or any other planning requirements through a typical planning approval process. These requirements aim to ensure adequate operation of the transportation system in terms of transportation congestion measures related to vehicular delay and roadway capacity. Furthermore, SB 743 does not preclude local agencies from using LOS to determine local impacts. Accordingly, the County continues to require evaluation of LOS to guide local circulation system planning and site access management and inform recommended conditions of approval for development projects.

The County's Department of Public Works typically requires analysis of the traffic and circulation impacts of proposed residential and non-residential developments that would add more than 500 daily trips or 100 peak hour trips. If a project would add more than 500 daily trips or 100 peak hour trips, the County defines a minimum acceptable design intersection level of service as LOS C, with no individual movement operating at less than LOS D. The requirements state that on occasion, LOS D may be allowed for peak periods.³³⁶ If a project would add fewer than 500 daily trips or 100 peak hour trips, an analysis is generally not required. Because the proposed project would generate fewer than 500 daily trips and fewer than 100 peak hour trips, it is not subject to the County's Transportation Impact Study (TIS) requirements (County TIS).³³⁷

The project site is located within the coastal zone and is subject to the transportation policies identified in the County's LCP (see Section 3.10.2.5.1, Local Coastal Program) including LCP Policy 2.52, which requires the preparation of a traffic impact analysis and mitigation plan. In assessing the need for roadway expansion the LCP indicates a desired LOS D standard for streets and intersections within the LCP area during commuter peak periods (weekday a.m. and p.m.) and a LOS E standard during recreation peak periods (Saturday midday) (LCP Policy 2.43). The potential impacts of the proposed project are being evaluated in accordance with the standards set forth by San Mateo County through its LCP and C/CAG's Land Use (TDM) Policy which require approval of the required C/CAG TDM Checklist for a Residential (Multi-Family) Land Use: Small Project with required and additional TDM measures and a required trip reduction goal of 25% (see Section 3.10.3.2.1, above).

³³⁶ County of San Mateo Department of Public Works, 2013.

³³⁷ County of San Mateo Department of Public Works, 2013.. Accessed May 24, 2023.

The intersection LOS analysis is considered outside of the CEQA process and is not used as a metric to determine the significance of a transportation impact under the CEQA. See the 2023 Cypress Point TIA in EIR Appendix Q for the detailed intersection LOS analysis for existing, existing plus project, cumulative, and cumulative plus project weekday a.m. and p.m. peak hour intersection operations and Saturday midday intersection operations. Any non-CEQA impacts or considerations resulting from the intersection LOS analysis would inform the entitlements review process and the conditions imposed on the project.

3.10.3.3 Impacts and Mitigation Measures

Impact TR-1: Implementation of the proposed project could conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. (Less than Significant)

See Section 3.10.2.5.1, Local Coastal Program, for a description of applicable transportation-related LCP policies referenced below in the assessment of the consistency of the project's development characteristics and mitigation measures with the County's LCP (see discussions above under Section 3.10.3.2.1 and below under Impact TR-3 and Impact TR-4).

Local Coastal Program

The proposed project does not include incompatible land uses that would interfere or conflict with an existing program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, or pedestrian systems or facilities. As discussed in **EIR Chapter 2, Project Description and Section 3.8, Land Use and Planning**, the project site is designated an affordable housing opportunity site in the County's LCP. As further noted, the approximately 11-acre project site is listed in the current 2014-2022 Housing Element and the public review draft of the Housing Element for the 2023–2031 cycle) as a housing opportunity site. In response to the land use and transportation constraints for new development within the coastal zone as it relates to demand on public infrastructure networks, i.e., transportation, water, and sewer, LCP amendments were adopted by the Board of Supervisors and the California Coastal Commission and codified in the Zoning Ordinance in 2022. The amendments changed the zoning to limit the allowed intensity of residential development permitted on the site (from 148 units to 71 units). Thus, the proposed project characteristics, i.e., residential uses, are consistent with the LCP as amended, and with the projected level of growth and development identified in Connect the Coastside.

As discussed in Section 3.10.3.3, under Impact TR-3 and Impact TR-4, the site plan shows adequate site access and on-site circulation and has been reviewed by both the County Department of Public Works and the Coastside Fire District. These agencies have concluded that the proposed driveway(s) and on-site loop road comply with their respective policies and requirements. Additionally, the project sponsor would improve the on-site pedestrian pathway connecting to the existing sidewalk on Sierra Street, improve the north sidewalk along Sierra Street, and construct a new sidewalk on east side of Carlos Street south from the proposed driveway entrance from Carlos Street to the Sierra Street/Carlos Street intersection; all of which would be implemented as part of the proposed project (see **Chapter 2, Project Description**). The proposed project would also provide adequate vehicle and bicycle parking spaces that meet the parking requirements specified by the County. Furthermore, the project sponsor would implement transportation demand management measures in the C/CAG TDM Checklist for a Residential (Multi-Family) Land Use: Small Project (see Appendix 9 in EIR Appendix Q) that are consistent with the County's LCP and Connect the Coastside as well as additional transportation demand management measures as mitigation measures to address project-related impacts (see Mitigation Measure (MM)-TR-2, MM-TR-4b, and MM-TR-4c).

The development of the proposed project at a density of approximately 6.4 residential units per acre would not conflict with transportation-related policies or regulations in the County's LCP, Connect the

Coastside, or C/CAG's 2021 TDM Policy. Pursuant to LCP Policy 2.52 a traffic impact analysis and mitigation plan was prepared to evaluate local circulation and safety issues and to develop mitigation measures to address impacts.

Traffic Operations

As discussed in Section 3.10.3.2, Impact Assessment and Methodology, the CEQA Guidelines provide that a project's effect on automobile delay shall not constitute a significant environmental effect. Revisions to CEQA transportation analysis requirements however do not preclude the application of local general plan policies, municipal and zoning codes, conditions of approval, or any other planning requirements through a lead agency's planning approval process. These requirements aim to ensure adequate operation of the transportation system in terms of transportation congestion measures related to vehicular delay and roadway capacity. Therefore, an analysis is provided to assess the effect of the proposed project on traffic operations for informational purposes and to evaluate its consistency with the County's LCP and relevant policies.

As discussed below, based on the trip generation and trip distribution information, project-related vehicle trips added to the local circulation system would incrementally increase traffic on the circulation system including SR-1 (both northbound and southbound). The results of the intersection LOS analysis show that the added project trips would degrade the LOS at the study intersections (all unsignalized) in the vicinity of the project site identified by the County for the traffic operations analysis under the County's LCP (see Figure 3.10-1):

1. State Route 1 and 14th Street
2. State Route 1 and 16th Street
3. State Route 1 and Carlos Street
4. Carlos Street and Sierra Street
5. Sierra Street and Stetson Street
6. State Route 1 and Etheldore Street/Vallemar Street
7. State Route 1 and California Avenue/Wienke Way
8. Carlos Street and California Avenue
9. California Avenue and Etheldore Street
10. California Avenue and Stetson Street

As shown below, the project-related traffic contributions at the study intersections are anticipated to result in less than desirable LOS at the SR-1 intersections such as Carlos Street, Etheldore Street, and California Avenue, i.e., vehicle delay and queuing on the stop-controlled approaches as drivers attempt to access SR-1 from the local streets. Safety-related hazards associated with project-related vehicle additions to the circulation system, and the exposure of pedestrian or bicyclists to roadway-related hazards are discussed under Impact TR-4.

Existing Traffic Conditions

The 2023 Cypress Point TIA (see EIR Appendix Q) evaluated traffic conditions at the study intersections using intersection LOS in order to determine if project-related traffic contributions would result in the need for roadway improvements/expansions pursuant to LCP Policy 2.43. LOS is a qualitative description of traffic flow based on such factors as speed, travel time, delay, and freedom to maneuver. Six levels are

defined, from LOS A, with the best operating conditions (i.e., free-flow conditions with little or no delay), to LOS F, with the worst operating conditions (i.e., jammed conditions with excessive delays).

Table 3.10-2 presents the results of the intersection LOS analysis under existing conditions without the proposed project. LOS at the unsignalized intersections were based on the 2010 Highway Capacity Manual (HCM) methodology using Synchro software. For stop-controlled intersections, LOS depends on the average delay experienced by vehicles on the stop-controlled approaches. Thus, for two-way stop-controlled intersections, operations are defined by the average control delay experienced by vehicles entering the intersection from the stop-controlled approaches on minor streets or from left-turn approaches on major streets, in this case, from intersecting side streets on to SR-1. In general, the traffic volumes along SR-1 (which are currently uncontrolled) govern traffic operations, i.e., more traffic along the major street of SR-1 makes finding a gap to enter the highway more difficult for drivers on a side street with stop control. Therefore, drivers attempting to access SR-1 from intersecting side streets with SR-1 such as Carlos Street, Etheldore Street, and California Avenue experience delays.

The intersection LOS evaluations under existing conditions are based on peak-hour turning-movement counts collected for the weekday a.m. (7:00 to 9:00), weekday p.m. (4:00 to 6:00), and Saturday midday (11:00 a.m. to 1:00 p.m.) peak periods. The intersection counts were collected on Thursday, April 20, 2017, and Saturday April 22, 2017 and include motor vehicles, bicycles, and pedestrians.³³⁸ Because the project site is located within the coastal zone and subject to the County's LCP and its land use and transportation policies, e.g., Policy 2.43-Desired LOS (discussed in Section 3.10.2.5, Local), the following LOS thresholds are used to assess the need for roadway expansions or improvements:

- LOS D overall and for critical movements during weekday peak hours
- LOS E overall and for critical movements during weekend peak hours

As noted below, under existing or cumulative conditions without the proposed project, certain intersections already operate below the desired LOS; thus, the magnitude of project-related contributions at such locations is provided as additional delay in seconds at the critical movements which in this instance are the approaches to SR-1 from the intersecting stop-controlled side streets.

LCP Policy 2.43 states that these thresholds (desired LOS) should be considered when assessing the need for road expansion as a result of conditions below the desired LOS. Further, within the existing alignment or lands immediately adjacent, LCP Policy 2.44 allows for limited roadway improvements including those developed through Connect the Coastside to address operational and safety concerns, e.g., the Moss Beach/SR-1 Project which includes intersection operation and crossing improvements at SR-1/16th Street, SR-1/Carlos Street, and SR-1/California Avenue with safe accommodations for pedestrian and bicycle travel along and across SR-1.

³³⁸ For traffic volumes along SR-1, Kittelson checked historical traffic counts to see if an upward adjustment would appropriately represent peak summer conditions. The available data showed the average two-way annual daily traffic volume on SR-1 in the project vicinity to be 16,500 vehicles per day and the peak month daily vehicle volume to be 17,600 vehicles per day. Kittelson used the ratio between the two (1.07) to inflate the observed April 2017 volumes. All analysis traffic volumes for through movements along SR-1 were increased by 7%. Appendix 2 of the 2023 TIA shows the correspondence with Caltrans on the appropriateness of this method. See EIR Appendix Q.

Table 3.10-2. Intersection Level of Service – Existing Conditions without Project

No.	Location	Control	Existing Weekday a.m.		Existing Weekday p.m.		Existing Saturday Midday	
			Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
1	State Route 1 and 14th Street	TWSC	24.4	C	32.6	D	38.1	E
2	State Route 1 and 16th Street	TWSC	31.0	D	37.6	E	38.4	E
3	State Route 1 and Carlos Street	TWSC	13.8	B	13.3	B	14.8	B
4	Carlos Street and Sierra Street	TWSC	8.4	A	8.7	A	8.6	A
5	Stetson Street and Sierra Street	TWSC	8.6	A	9.0	A	8.7	A
6	State Route 1 and Etheldore Street / Vallemar Street	TWSC	22.3	C	37.0	E	31.0	D
7	State Route 1 and California Avenue / Wienke Way	TWSC	43.5	E	78.2	F	87.1	F
8	Carlos Street and California Avenue	TWSC	9.8	A	9.4	A	9.9	A
9	Etheldore Street and California Avenue	TWSC	9.5	A	9.7	A	9.7	A
10	Stetson Street and California Avenue	AWSC	7.2	A	7.3	A	7.2	A

Source: Highway Capacity Manual 2010; Kittelson & Associates 2023 (see EIR Appendix Q).

Notes: (s) = seconds, AWSC: All-Way Stop Control, TWSC: Two-Way Stop Control. LOS and delay reported for TWSC intersections is for the worst approach or movement. Bold lettering indicates an intersection that does not meet the LCP's desired LOS (LOS D overall and for critical movements during weekday peak hours, LOS E overall and for critical movements during weekend peak hours).

Under existing conditions, the intersection LOS analysis shows the following:

- **SR-1 and 16th Street intersection (No. 2)** traffic operations are below the desired LOS D for the weekday p.m. peak hour at LOS E.
- **SR-1 and Etheldore Street/Vallemar Street intersection (No. 6)** traffic operations are below the desired LOS D for the weekday p.m. peak hour at LOS E.
- **SR-1 and California Avenue/Wienke Way intersection (No. 7)** traffic operations are below the desired LOS D for the weekday a.m. and p.m. peak hour at LOS E and LOS F, respectively. Traffic operations are also below the desired LOS E for the Saturday midday peak hour at LOS F.

Table 3.10-3 presents the results of the intersection LOS analysis under cumulative conditions without the proposed project. Cumulative conditions are based on information derived from the C/CAG-VTA San Mateo County Travel Demand Model including funded and approved transportation projects as well as past, present, and reasonably foreseeable development projects with active planning applications within the incorporated and unincorporated portions of the County along the Midcoast and in nearby communities, such as Montara and City of Half Moon Bay.

Table 3.10-3. Intersection Level of Service – Cumulative Conditions (2040) without Project

No.	Location	Control	Cumulative Weekday a.m.		Cumulative Weekday p.m.		Cumulative Saturday Midday	
			Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
1	State Route 1 and 14th Street	TWSC	58.2	F	>80	F	59.8	F
2	State Route 1 and 16th Street	TWSC	74.7	F	>80	F	59.7	F
3	State Route 1 and Carlos Street	TWSC	16.2	C	18.8	C	19.5	C

No.	Location	Control	Cumulative Weekday a.m.		Cumulative Weekday p.m.		Cumulative Saturday Midday	
			Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
4	Carlos Street and Sierra Street	TWSC	8.5	A	8.8	A	8.6	A
5	Stetson Street and Sierra Street	TWSC	8.7	A	9.1	A	8.8	A
6	State Route 1 and Etheldore Street / Vallemar Street	TWSC	52.3	F	>80	F	34.1	D
7	State Route 1 and California Avenue / Wienke Way	TWSC	>80	F	>80	F	>80	F
8	Carlos Street and California Avenue	TWSC	10.0	B	9.7	A	10.2	B
9	Etheldore Street and California Avenue	TWSC	9.7	A	9.9	A	10.0	B
10	Stetson Street and California Avenue	AWSC	7.3	A	7.4	A	7.2	A

Source: Highway Capacity Manual 2010; Kittelson & Associates 2023 (see EIR Appendix Q).

Notes: (s) = seconds, AWSC: All-Way Stop Control, TWSC: Two-Way Stop Control. LOS and delay reported for TWSC intersections is for the worst approach or movement. **Bold lettering** indicates an intersection that does not meet the LCP's desired LOS (LOS D overall and for critical movements during weekday peak hours, LOS E overall and for critical movements during weekend peak hours).

Under cumulative conditions, the intersection LOS analysis shows the following:

- **SR-1 and 14th Street intersection (No. 1)** traffic operations are projected to be below the desired LOS D for the weekday a.m. and p.m. peak hour at LOS F. Traffic operations would also be below the desired LOS E for the Saturday midday peak hour at LOS F.
- **SR-1 and 16th Street intersection (No. 2)** traffic operations are projected to be below the desired LOS D for the weekday a.m. and p.m. peak hour at LOS F. Traffic operations would also be below the desired LOS E for the Saturday midday peak hour at LOS F.
- **SR-1 and Etheldore Street/Vallemar Street intersection (No. 6)** traffic operations are projected to be below the desired LOS D for the weekday a.m. and p.m. peak hour at LOS F.
- **SR-1 and California Avenue/Wienke Way intersection (No. 7)** traffic operations are projected to be below the desired LOS D for the weekday a.m. and p.m. peak hour at LOS F. Traffic operations would be below the desired LOS E for the Saturday midday peak hour at LOS F.

Trip Generation

The estimation of daily and peak-hour vehicle trips generated by the proposed project is based on information compiled in the 9th Edition of the Institute of Transportation Engineers (ITE) *Trip Generation* manual.³³⁹ Table 3.10-4 presents the proposed project trip generation estimates. As shown, the proposed project is estimated to generate 473 daily trips, 37 weekday a.m. peak hour trips, 45 weekday p.m. peak hour trips, and 37 weekend Saturday midday peak hour trips.

³³⁹ ITE. 2012. *Trip Generation: an ITE informational report*, 9th ed. Institute of Transportation Engineers, Washington, D.C.

Table 3.10-4. Project Trip Generation

Land Use	Size	Daily Trips	Weekday a.m. Peak Hour			Weekday p.m. Peak Hour			Saturday Midday Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
Apartment*	71 units	473	37	8	29	45	29	16	37	19	18

Source: ITE 2012; Kittelson & Associates 2023 (see EIR Appendix Q).

* ITE Code 220 used for trip generation. The ITE Trip Generation manual lists an average rate of 6.65 weekday trips per dwelling unit for land use ITE 220 (Apartment), 6.59 for ITE 221 (low-rise apartment), 4.20 for ITE 222 (High-Rise Apartment), and no reported daily rate for ITE 223 (Mid-Rise Apartment).

Trip Distribution and Assignment

The trip distribution pattern for the proposed project was estimated based on existing travel patterns and travel volume data on the surrounding roadway system, from knowledge of local travel times, and the locations of complementary land uses. The project trips were assigned to the roadway network based on the directions of approach and departure, the roadway network connections, and the location of the project driveway. The recorded north/south distribution of traffic along SR-1 was used to inform the direction that project traffic would be going to or coming from in order to access the project site. Access to SR-1 from the project site was assumed to be via Carlos Street and SR-1 intersections at Carlos Street (north of the site) and Etheldore Street or California Avenue (south of the project site).

Intersection Levels of Service and Traffic Operations

Tables 3.10-5 and 3.10-6 present traffic operations data for existing and cumulative conditions with the proposed project. With the addition of project-related vehicle trips to the local circulation system, the following study intersections under existing plus project conditions and cumulative plus project conditions may fail to operate at the LCP’s current desired LOS, and thereby give rise to the need for the County to assess potential roadway expansions/improvements:

Existing Plus Proposed Project Conditions

- **State Route 1 and California Avenue/Wienke Way (No. 7):** As shown in Table 3.10-2, this intersection already operates below the desired LOS under Existing Conditions in the weekday a.m. (LOS E), weekday p.m. (LOS F), and Saturday midday (LOS F) peak hours. As shown in Table 3.10-5, under Existing plus Project Conditions, this intersection is projected to continue to operate below the desired LOS in the weekday a.m., weekday p.m., and Saturday midday peak hours. In the weekday p.m. and Saturday midday peak hours, the addition of approximately 22 project-related weekday p.m. peak hour vehicle trips and approximately 18 project-related Saturday midday peak hour vehicle trips is projected to add about 5.9 and 5.2 seconds of average delay, respectively, for the critical movement, i.e., the side-street, stop-controlled movement to access SR-1, and contribute to its operation below the desired LOS.

Table 3.10-5. Intersection Level of Service – Existing Plus Project Conditions

No.	Location	Control	Weekday a.m.		Weekday p.m.		Saturday Midday	
			Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
1	State Route 1 and 14th Street	TWSC	25.1	D	33.7	D	39.4	E
2	State Route 1 and 16th Street	TWSC	31.7	D	39.1	E	39.3	E
3	State Route 1 and Carlos Street	TWSC	19.9	C	27.5	D	32.0	D

No.	Location	Control	Weekday a.m.		Weekday p.m.		Saturday Midday	
			Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
4	Carlos Street and Sierra Street	TWSC	8.4	A	8.7	A	8.6	A
5	Stetson Street and Sierra Street	TWSC	8.6	A	9.0	A	8.7	A
6	State Route 1 and Etheldore Street / Vallemar Street	TWSC	22.7	C	38.2	E	31.7	D
7	State Route 1 and California Avenue / Wienke Way	TWSC	45.6	E	84.1	F	92.3	F
8	Carlos Street and California Avenue	TWSC	9.8	A	9.4	A	9.9	A
9	Etheldore Street and California Avenue	TWSC	9.5	A	9.7	A	9.7	A
10	Stetson Street and California Avenue	AWSC	7.2	A	7.3	A	7.2	A

Source: Highway Capacity Manual 2010; Kittelson & Associates 2023 (EIR Appendix Q).

Notes: (s) = seconds, AWSC: All-Way Stop Control, TWSC: Two-Way Stop Control. LOS and delay reported for TWSC intersections is for the worst approach or movement. **Bold lettering** indicates an intersection that does not meet the LCP's desired LOS (LOS D overall and for critical movements during weekday peak hours, LOS E overall and for critical movements during weekend peak hours). **Gray highlighted cells** indicate locations where the addition of project trips would either degrade operations to below the desired LOS or add time to the average delay to the critical movement at a location already operating below the desired LOS.

Cumulative Plus Proposed Project Conditions

- State Route 1 and 16th Street (No. 2):** As shown in Table 3.10-3, this intersection is already projected to operate below the desired LOS under Cumulative Conditions in the weekday a.m. (LOS F), weekday p.m. (LOS F), and Saturday midday (LOS F) peak hours. As shown in Table 3.10-6, under Cumulative plus Project Conditions this intersection is projected to continue to operate below the desired LOS in the weekday a.m., weekday p.m., and Saturday midday peak hours. In the weekday p.m. hour, the addition of approximately 23 project-related vehicle trips is projected to add between 5.1 and 8.9 seconds of average delay for the critical movements, i.e., the stop-controlled westbound and eastbound side-street movements to access SR-1 from 16th Street and contribute to its operation below the desired LOS.
- State Route 1 and Carlos Street (No. 3):** As shown in Table 3.10-3, this intersection is projected to operate within the desired LOS under Cumulative Conditions in the weekday a.m. (LOS C), weekday p.m. (LOS C), and Saturday midday (LOS C) peak hours. As shown in Table 3.10-6, under Cumulative plus Project Conditions this intersection is projected to operate below the desired LOS in the weekday a.m. (LOS E) and weekday p.m. peak hours (LOS F). In the weekday a.m. and p.m. peak hours, the addition of approximately 37 project-related weekday a.m. peak hour vehicle trips and approximately 45 project-related weekday p.m. peak hour vehicle trips is projected to add delays (from approximately 20.5 seconds to 45.5 seconds, respectively) for the critical movement, i.e., the side-street, stop-controlled movements to access SR-1 from Carlos Street, and cause it to operate below the desired LOS.
- State Route 1 and Etheldore Street/Vallemar Street (No. 6):** As shown in Table 3.10-3, this intersection is already projected to operate below the desired LOS under Cumulative Conditions in the weekday a.m. (LOS F) and weekday p.m. (LOS F) peak hours and operates within the desired LOS in the Saturday midday (LOS D) peak hour. As shown in Table 3.10-6, under Cumulative plus Project Conditions this intersection is projected to continue to operate below the desired LOS in the weekday a.m. and weekday p.m. peak hours and would operate within the desired LOS during the Saturday midday peak hour. In the weekday p.m. peak hour, the addition of approximately 22 project-related vehicle trips is projected to add approximately 5.7 seconds of average delay for the critical movement, i.e., the side-street, stop-controlled movement to access SR-1, and contribute to its operation below the desired LOS.

- State Route 1 and California Avenue/Wienke Way (No. 7):** As shown in Table 3.10-3, this intersection is already projected to operate below the desired LOS under Cumulative Conditions in the weekday a.m. (LOS E), weekday p.m. (LOS F), and Saturday midday peak hours (LOS F). As shown in Table 3.10-6, under Cumulative plus Project Conditions this intersection is projected to continue to operate below the desired LOS in the weekday a.m., weekday p.m., and Saturday midday peak hours. In the weekday a.m., weekday p.m., and Saturday midday peak hours, the addition of approximately 18 project-related weekday a.m. peak hour vehicle trips, approximately 22 project-related weekday p.m. peak hour vehicle trips, and approximately 18 project-related Saturday midday peak hour vehicle trips is projected to add up to between 4.7 and 57.5 seconds of average delay for the critical movement, i.e., the side-street, stop-controlled movement to access SR-1, and contribute to its operation below the desired LOS.

Table 3.10-6. Intersection Level of Service – Cumulative Plus Project Conditions

No.	Location	Control	Cumulative Weekday a.m.		Cumulative Weekday p.m.		Cumulative Saturday Midday	
			Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
1	State Route 1 and 14th Street	TWSC	60.6	F	92.5	F	60.6	F
2	State Route 1 and 16th Street	TWSC	77.5	F	114.2	F	61.4	F
3	State Route 1 and Carlos Street	TWSC	36.7	E	64.2	F	49.1	E
4	Carlos Street and Sierra Street	TWSC	8.5	A	8.8	A	8.6	A
5	Stetson Street and Sierra Street	TWSC	8.7	A	9.1	A	8.8	A
6	State Route 1 and Etheldore Street / Vallemar Street	TWSC	>80	F	112.0	F	35.1	E
7	State Route 1 and California Avenue / Wienke Way	TWSC	>80	F	>80	F	>80	F
8	Carlos Street and California Avenue	TWSC	10.0	B	9.7	A	10.2	B
9	Etheldore Street and California Avenue	TWSC	9.7	A	9.9	A	10.0	B
10	Stetson Street and California Avenue	AWSC	7.3	A	7.4	A	7.2	A

Source: Highway Capacity Manual 2010; Kittelson & Associates 2023 (see EIR Appendix Q).

Notes: (s) = seconds, AWSC: All-Way Stop Control, TWSC: Two-Way Stop Control. LOS and delay reported for TWSC intersections is for the worst approach or movement. **Bold lettering** indicates an intersection that does not meet the LCP's desired LOS (LOS D overall and for critical movements during weekday peak hours, LOS E overall and for critical movements during weekend peak hours). **Gray highlighted cells** indicate locations where the addition of project trips would either degrade operations to below the desired LOS or add time to the average delay to the critical movement at a location already operating below the desired LOS.

As noted, the project site is located within the coastal zone and subject to the County's LCP. Accordingly, the desired LOS cited in LCP Policy 2.43, i.e., LOS D overall and for critical movements during weekday peak hours and LOS E overall and for critical movements during weekend peak hours, were used to identify potential impacts that trigger the need for the County to assess potential roadway improvements. Based on the above, project-related traffic contributions are projected to result in the need to assess roadway modifications that could improve operations at the following intersections under existing and cumulative plus project conditions:

- SR-1 and 16th Street (No. 2)
- SR-1 and Carlos Street (No. 3)
- SR-1 and Etheldore Street/Vallemar Street (No. 6)
- SR-1 and California Avenue/Wienke Way (No. 7)

Effect of Project-Specific Mitigation Measures

Implementation of MM-TR-3 (Temporary Closure of Carlos Street at State Route-1) is projected to redistribute traffic from the SR-1/Carlos Street intersection to the SR-1/Etheldore Street and SR-1/California Avenue intersections. The redistribution of project-related traffic could result in additional delays for drivers attempting to access SR-1 from these side streets, or secondary effects, at these intersections where the critical movement delay fell below the desired LOS threshold under Existing plus Project conditions (weekday p.m. peak hour) and Cumulative plus Project conditions (Saturday midday peak hour). With regard to the SR-1/Etheldore Street Intersection as shown in Table 3.10-2, under Existing Conditions, this intersection currently operates within the desired LOS in the weekday a.m. (LOS C) and Saturday midday (LOS D) peak hours and operates below the desired LOS in the weekday p.m. (LOS E) peak hour. Under Existing plus Project conditions with redistributed traffic, this intersection is projected to operate below the desired LOS in the weekday p.m. peak hour (LOS E) similar to the proposed project without redistributed traffic. However, with redistributed traffic, in the weekday p.m. peak hour, the redistributed project-related vehicle trips could add additional time to the average delay for the critical movement and contribute to traffic operations below the desired LOS. As shown in Table 3.10-3, under Cumulative Conditions this intersection is projected to operate below the desired LOS during weekday a.m. (LOS F) and p.m. (LOS F) peak hours and is projected to operate with an acceptable LOS standard in the Saturday midday (LOS D) peak hour. Under Cumulative plus Project Conditions with redistributed traffic, intersection operations are projected to degrade in the Saturday midday peak hour and operate below the desired LOS at LOS F, unlike the proposed project without redistributed traffic which is not projected to cause this intersection to operate below the desired LOS under Cumulative plus Project Conditions. In the Saturday midday peak hour, the addition of project-related vehicle trips is projected to add delays for the critical movement, i.e., the side-street, stop-controlled movement to access SR-1 from Etheldore Street, and result in operations below the desired LOS.

As discussed below, the C/CAG TDM Checklist measures included with the proposed project (see Appendix 9 in EIR Appendix Q) and implementation of MM-TR-2 (Implement C/CAG TDM Checklist Measure M4) under Impact TR-2 (VMT), and MM-TR-4b (Augment C/CAG TDM Checklist Measure M3) and MM-TR-4c (Additional Transportation Demand Management Measures) under Impact TR-4 (Hazards) would be expected to reduce project trips to the extent feasible. The C/CAG TDM Checklist measures and additional mitigation would reduce the vehicle trip generation and reduce the effect to the extent feasible; however, the level of vehicle trip generation reduction cannot be measured. Thus, implementation of MM-TR-4c would be expected to reduce project-related vehicle trips to the extent feasible but is not expected to offset all project-related vehicle additions at the SR-1 intersections with 16th, Carlos, and Etheldore streets and California Avenue. As such, the less than desired LOS at these intersections may remain.

Conclusions

In summary, the changes in the desired LOS identified in LCP Policy 2.43 resulting from implementation of the proposed project are not significant impacts under CEQA. The C/CAG TDM Checklist measures that would be implemented as part of the proposed project and the mitigation measures identified for the proposed project's CEQA-related impacts on VMT and as a result of exposure of future residents to roadway-related hazards, e.g., additional TDM measures, would shift a share of future residents from driving to alternative modes or reduce the demand for travel, thus addressing, in part and to the extent feasible, the incremental increase in project-related trips to the roadway network and the resultant travel delays for driver's attempting to access SR-1 from side-stop controlled intersection such as 16th Street, Carlos Street, Etheldore Street, and California Avenue. Implementation of the required C/CAG TDM Checklist Measures and the project-specific mitigation measures would be consistent with LCP Policy 2.50 (Improvements for Bicycle and Pedestrian Trails) and LCP Policy 2.56 (Increased Service for

Coastside Residents) because these measures would support County efforts to shift single-occupancy vehicle trips to other travel modes such as public transit and promote active transportation choices. Furthermore, the Moss Beach/SR-1 Project (Section 3.10.2.5.1, Local Coastal Program) would address the desired LOS at the SR-1 intersections with 16th and Carlos Streets and California Avenue/Wienke Way through an evaluation and refinement of the various alternatives that have been promulgated through the Connect the Coastside process, e.g., traffic signalization and single-/multi-lane roundabouts, to address the known safety and congestion concerns along this segment of SR-1. As discussed under Impact TR-3 and in Section 3.10.2.5.1, Local Coastal Program, the temporary closure of Carlos Street at SR-1 (MM-TR-3) would be an interim measure that would be removed when the SR-1 roadway and intersection improvements under the Moss Beach/SR-1 Project are approved and ultimately constructed. However, implementation of the Moss Beach/SR-1 Project and the intersection improvements that would successfully address these congestion and safety concerns are under the jurisdiction of Caltrans. Thus, implementation authority does not rest exclusively with the County and the funding and timing cannot be guaranteed. As further noted under Impact TR-3, the County can establish conditions of approval which would require the project sponsor to contribute funds proportional to the project's impact to offset the costs of implementing improvements at affected locations with traffic impacts. The Kittelson TIA (see EIR Appendix Q) prepared in conformance with LCP Policy 2.52 identified mitigation measures to address project effects to the extent feasible; all such measures as described below under Impact TR-2, TR-3 and TR-4 would be consistent with the County's LCP transportation-related policies.

In addition, and for informational purposes only, as discussed in Section 3.10.3.2.2, State, the County TIS provides LOS thresholds that differ from those in LCP Policy 2.43. The County TIS considers the minimum acceptable LOS to be LOS C overall, with, "no individual movement operating at less than 'D'," though it notes that "On occasion, level of service 'D' may be allowed for peak periods in dense urban conditions per County's discretion."^{340, 341} Although the County indicated that the LCP's desired LOS thresholds are the appropriate and applicable standards for determining the need for roadway improvements/expansion; for purposes of comparison, the findings from application of the stricter threshold are provided as follows:

- Existing plus Project conditions: no change in results
- Cumulative plus Project conditions: two additional effects identified – SR-1 and Carlos Street (No. 3) and SR-1/Etheldore Street/Vallemar Street (No. 6) in Saturday midday peak hour conditions

These secondary effects at SR-1/Etheldore Street and its operation within the desired LOS would benefit from the same set of TDM measures as the other identified intersections with degraded LOS, i.e., vehicle trips replaced by other modes.

Transportation Plans

Connect the Coastside

Connect the Coastside includes a suite of project recommendations to address current and future transportation needs such as hazardous roadway conditions, roadway congestion, and pedestrian/bicycle safety concerns throughout the Midcoast, including along SR-1 and at the SR-1/16th Street, SR-1/Carlos Street, and SR-1/California Avenue intersections. Coordination between Caltrans, the County, and other local stakeholders such as SamTrans, will continue in order to complete the improvements recommended in Connect the Coastside. Among the priority projects identified in Connect the Coastside is the Moss

³⁴⁰ County of San Mateo Department of Public Works, 2013.

³⁴¹ County of San Mateo Department of Public Works, 2020.

Beach/SR-1 Project.³⁴² The County initiated this effort in 2022 and is committed to improving the intersections and pedestrian crossings on SR-1 in Moss Beach at the SR-1/16th Street, SR-1/Carlos Street, and SR-1/California Avenue intersections. The County will continue to coordinate with Caltrans and other local stakeholders on the desired improvements. The selected form of intersection controls and the timing of their installation, when determined through the Moss Beach/SR-1 Project, would constitute improvements consistent with the LCP Policy 2.42 because it would not propose or necessitate the expansion of roadways. The alternatives to be evaluated and refined through the Moss Beach/SR-1 Project would be consistent with Connect the Coastside and inform the project-specific mitigation measures discussed under Impact TR-3 and Impact TR-4. The proposed project is not anticipated to conflict with any existing or planned active transportation facilities or recommended improvements identified in Connect the Coastside and the resultant Moss Beach/SR-1 Project.

Other Transportation Plans

The proposed project would not conflict with the County's Complete Streets policies, the C/CAG 2021 TDM Policy, nor other traffic-related policies or regulations. The County's LCP and the General Plan's local circulation policy allows for improved streets, sidewalks, and bikeways in developed areas in unincorporated communities. The traffic generated by future residents would increase vehicles on Carlos Street and project-related traffic contributions to the SR-1/Carlos Street intersection, located approximately 500 feet north of the project site driveway off Carlos Street, would exacerbate an already existing hazardous intersection in terms of safety for vehicles, pedestrians, and bicyclists (see Section 3.10.3.3, under Impact TR-4). As discussed under Impact TR-4, the proposed project would not change roadway geometries in the immediate project vicinity that would prevent the development of the proposed bicycle facilities or safe bike travel. In addition, implementation of the bicycle network components of MM-TR-4c, i.e., sharrow pavement markings on Sierra Street, Carlos Street and California Avenue, would be consistent with the recommended pedestrian and bicycle network improvements in Moss Beach identified in the 2021 CBPP and the SMC ATP, e.g., the Multimodal Parallel Trail between SR-1 and Carlos Street. Therefore, the proposed project would not conflict with existing or proposed bicycle facilities identified in the SMC ATP and/or CBPP or inhibit bicycle access along Carlos and Sierra streets.

The project site is served by two SamTrans bus routes (Route 117 and Route 18) which primarily travel along SR-1 (see Figure 3.10-1). The closest northbound Route 117 bus stop is located north of the project site on the east side of SR-1 at SR-1/14th Street (0.23 mile from the project site). The closest southbound Route 117 bus stop is located west of the project site across Carlos Street on the west side of SR-1 and south of 16th Street (0.11 mile from the project site). Other bus stops that serve both Route 117 and Route 18 are located to the south at Etheldore Street/California Avenue (0.62 mile from the project site) and Etheldore Street/Sunshine Valley Road (0.62 mile from the project site). Since the majority of SR-1 traffic movements experience little or no delay, project-related traffic contributions to SR-1 are not anticipated to decrease the performance of public transit. With regard to the improving existing bus stops that serve Route 117, the County and project sponsor are working with SamTrans to evaluate, and, if feasible, pursue improvements to the existing bus stops at Etheldore and California Avenue (see MM-TR-4c). The existing bus stop closest to the project site on west side of SR-1 south of 16th Street across from Carlos Street for southbound SamTrans Route 117 bus stop would not be improved due to space and access constraints.

Additionally, the proposed project would include transportation demand management features with the potential to reduce vehicle trips by up to 26% (see Appendix 9 in EIR Appendix Q). Thus, project features would have the potential to limit project-related operational deficiencies introduced at the

³⁴² County of San Mateo Planning and Building Department, 2023c.

SR-1/Carlos Street intersection and SR-1/California Avenue intersections under existing conditions plus the proposed project and cumulative conditions plus proposed project. The proposed project would therefore be consistent with the County's LCP, as amended; the Housing Element, and the Shared Vision 2025 goal of promoting affordable, livable communities for all County residents.

Furthermore, project-specific mitigation measures (discussed below) would be consistent with the Moss Beach/SR-1 Project (discussed below) and the potential intersection modifications at SR-1/Carlos Street and SR-1/California Avenue/Wienke Way under evaluation, i.e., traffic signalization or roundabouts.

Conclusion

The proposed project would not conflict with or result in an adverse effect on the circulation system, including transit, roadway, bicycle and pedestrian facilities, and parking. The proposed project, as designed, and the identified mitigation measures are consistent with County's LCP policies, Connect the Coastside, and the resultant Moss Beach/SR-1 Project as well as applicable policies such as Complete Streets and the C/CAG 2021 TDM Policy to the extent feasible. The project-specific mitigation measures identified to address the CEQA-related impacts (MM-TR-2, MM-TR-3, MM-TR-4b, and MM-TR-4c, below) would also address, in part and to the extent feasible, the less than desirable LOS at the following intersections under existing plus project and cumulative plus project conditions:

- SR-1 and 16th Street (No. 2)
- SR-1 and Carlos Street (No. 3)
- SR-1 and Etheldore Street/Vallemar Street (No. 6)
- SR-1 and California Avenue/Wienke Way (No. 7)

Therefore, the proposed project would be consistent with existing programs, plans, ordinances, or policies addressing the circulation system, and the impact would be less than significant.

TR-1 Mitigation Measure Recommendation

None.

Impact TR-2: The proposed project would exceed the County VMT thresholds and therefore would not be consistent with State CEQA Guidelines Section 15064.3(b). (Significant and Unavoidable with Mitigation)

As noted in Section 3.10.3.2.2, Methodology, the proposed project is a 100% affordable housing project and qualifies as an urban infill site under the County's LCP. The project would therefore be eligible for project screening (e.g., presumed to have a less than significant impact) based on the County's Interim VMT guidance. However, the project sponsor requested that a quantitative VMT analysis be conducted to be conservative and estimate the effectiveness of project characteristics such as the Local Preference Agreement, the C/CAG TDM Checklist measures, and other potential TDM measures because of the limited public transit options along the Midcoast and known safety hazards for drivers, pedestrians, and bicyclists traveling along and across SR-1 in the Moss Beach area. The quantitative analysis below follows the methodology described above under Section 3.10.3.2.2.

If a residential project is not determined exempt through the screening process identified in the County's Interim VMT guidance document, the County requires residential projects to quantitatively assess VMT impacts using a threshold of significance of 15% below the countywide average baseline VMT home-based trip VMT per resident (13.60 listed in County Interim VMT guidance document). Therefore, under a quantitative scenario, the proposed project would have a significant impact if it would result in more

than 11.56 daily home-based VMT per capita by resident. The Bay Area daily average for home-based VMT per resident was 14.6; thus, 15% below the Bay Area's baseline VMT of 14.6 home-based trip VMT per resident would set the threshold at 12.41. Additionally, the C/CAG VMT Estimation Tool was used to aggregate coastal Transportation Analysis Zones (TAZ) that cover the Midcoast from south of Devil's Slide through the City of Half Moon Bay, including the project site, and develop a Coastal TAZ daily average for home-based VMT per resident. Based on the C/CAG VMT Estimation Tool, the Coastal TAZ baseline VMT for the subregional geography, i.e., the urban Coastal TAZs along SR-1 between Devil's Slide and the City of Half Moon Bay along SR-1 excluding TAZs north of Devil's Slide in the City of Pacifica and TAZs east of the project site in rural areas of the county, is 23.8 daily home-based trip VMT per resident; thus, 15% below the Coastal TAZ baseline VMT of 23.8 home-based VMT per resident would set the threshold at 20.7.³⁴³ (Figure 3.10-2).

The C/CAG VMT Estimation Tool estimates a baseline residential VMT of 23.6 daily home-based trip VMT per resident for the TAZ in which the project site is located which is below the Coastal TAZ baseline VMT of 23.8 (see Figure 3.10-2). The proposed project would add 71 new residential units including a building manager unit to an area of the County where VMT per resident (23.6) exceeds the Bay Area, County, and Coastal TAZ daily averages for home-based VMT per resident (14.6, 13.6, and 19.0, respectively). Based on existing travel patterns and the jobs-housing balance, new residents at the project site would be expected to generate VMT at a similar rate which would exceed the County's significance threshold of 11.56 daily home-based VMT per capita by resident, which is 15% below the daily County average VMT. It would also exceed the thresholds of 12.41 daily home-based VMT per capita by resident and 16.15 daily home-based VMT per capita by resident, which are 15% below the daily regional and Coastal TAZ VMT, respectively.

³⁴³ C/CAG, SB 734 – LOS to VMT, San Mateo Countywide VMT Estimation Tool. Available e at: <https://ccag.ca.gov/sb-743-los-to-vmt/>. Accessed June 14, 2023.

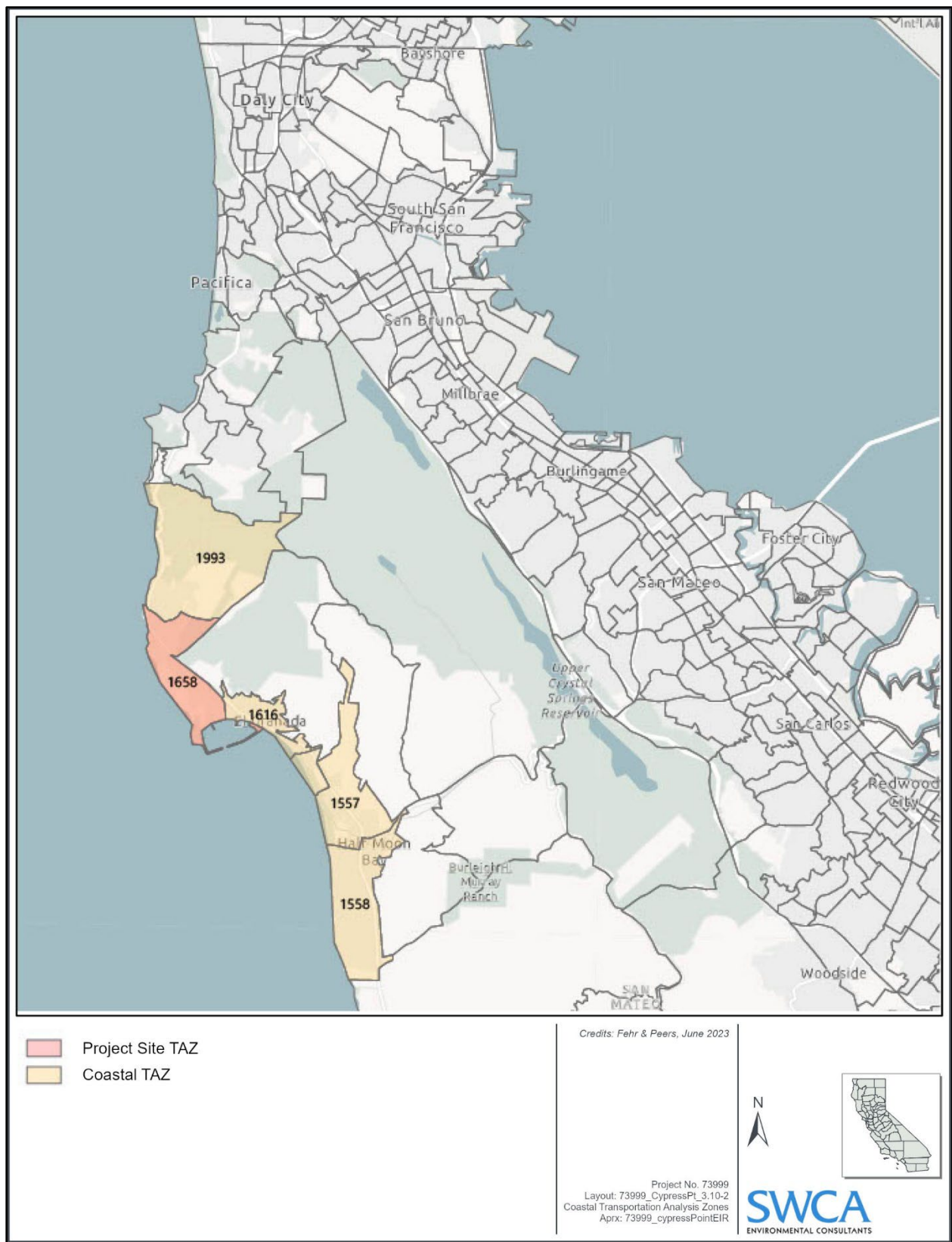


Figure 3.10-2. Coastal Transportation Analysis Zones.

As noted in Section 3.10.3.2.1, Proposed Development Characteristics, the project sponsor would implement TDM measures to provide options to future residents to allow use of non-auto modes; strategies to encourage carpooling, biking, walking, and transit use; and site design features to promote shifts from automobiles to transit and non-auto modes such as walking and bicycling. The TDM program includes measures that are related to non-drive alone mode education, transit or ridesharing subsidies, bicycle amenities, and infrastructure improvements to support active transportation. The proposed TDMs would achieve a total trip reduction of 26% and would meet C/CAG requirements to include measures that achieve a minimum trip reduction target of 25% based on project type, size, and location. Furthermore, the project sponsor has committed to set aside 52 of the 70 affordable housing units as Local Preference Units where eligible households are those that include at least one member who lives or works in the City of Pacifica, the City of Half Moon Bay, and/or the unincorporated County region between the City of Pacifica and the City of Half Moon Bay (Greater Moss Beach Region). See **Chapter 2, Project Description**, for a discussion of the “Local Preference Agreement” and the affordability by income breakdown. The Local Preference Agreement may result in shorter commute trips per resident, and thus reduce VMT.

A quantitative VMT analysis was conducted to be conservative and to determine if the affordable housing characteristics of the proposed project, the Local Preference Agreement, and the various TDM measures would reduce VMT to a less-than-significant level. The VMT analysis was informed by the most recent version of the CAPCOA Handbook.³⁴⁴ The Caltrans TDM+ Tool was used to estimate potential VMT reductions for the TDM measures.³⁴⁵ As shown in Table 3.10-7, 100% affordable housing may have a 28.6% reduction in VMT compared with market-rate housing.³⁴⁶

Table 3.10-7. Range of Potential VMT Reductions

Measure	VMT Reduction		
	Subsector	Change in VMT	Description
Scale: Project/Site ^{NOTE A}			
Affordable and Below Market Rate Housing	Land Use	-28.6%	All units are affordable except the building manager unit. The maximum percent reduction is applied.
Increased Density	Land Use	N.A.	At 6.4 units per acre the proposed project is less dense than the average U.S. residential density. LCP Amendment approved for the proposed project reduced the development intensity. No reduction is applied.
Transit Subsidy or Discounted Transit Program	Trip Reduction Programs	-0.73%	C/CAG TDM Checklist M6 – Transit or Ridesharing Passes/Subsidies, offers tenants passes or subsidies for monthly public transit or ridesharing costs incurred, equivalent to 30% of value or \$50, whichever is lower. The current monthly cost for a SamTrans Express Pass is \$130. ^{NOTE B} The project sponsor will comply with this required TDM Measure.

³⁴⁴ California Air Pollution Control Officers Association. 2021. Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, pp. 80–83. Available at https://www.caleemod.com/handbook/full_handbook.html. Accessed May 23, 2023.

³⁴⁵ Caltrans, SB 743 Implementation Resources. Available at: <https://dot.ca.gov/programs/sustainability/sb-743/sb743-resources>. Accessed June 14, 2023. TDM+ is a quick response, excel-based tool developed by Fehr & Peers to assist in calculating VMT reductions from the strategies presented in the 2021 CAPCOA Report Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity. Its interface is designed to allow the user to update the inputs for each measure based on the specific attributes of a project or plan, as well as to pre-populate certain default values based on the project location. This version of TDM+ is currently in beta-testing.

³⁴⁶ California Air Pollution Control Officers Association, 2021.

Measure	VMT Reduction		
	Subsector	Change in VMT	Description
End-of-Trip Bicycle Facilities	Trip Reduction Programs	-0.55%	The C/CAG TDM Checklist includes M8 – Secure Bicycle Storage. The project sponsor will comply with CalGREEN minimum bicycle parking requirements.
Scale: Plan/Community ^{NOTE A}			
Gap Closure and Sidewalk Improvements ^{NOTE C}	Neighborhood Design	-2.73%	The TDM Checklist includes M23 – Gap Closure. As part of this measure, the project sponsor will add sidewalks and high-visibility crosswalks as part of MM-TR-4c for Impact TR-4. Using an approximately 1,000-foot radius of the project site as a study area, the existing sidewalk length is about 0.1 mile and with the TDM Checklist and mitigation measure the sidewalk length will be about 0.2 mile.
Non-CAPCOA Measures			
Local Preference Units	N/A	-(0 to 10.6)%	If 100% of residents in the local preference units live on the coast, apply a 0% reduction. If 100% of residents in the local preference units work on the coast, apply a 10.6% reduction.
Total Reduction		29.5% to 37.0% <small>NOTES D and E</small>	

Source: Fehr & Peers, TIA Peer Review and VMT Analysis, 2023 (see EIR Appendix R).

Note: N/A = Not Applicable

^{NOTE A} The CAPCOA Handbook recommends that GHG reductions of transportation measures from different scales of application should not be combined. For this reason, the reduction in VMT is calculated for the Project/Site scale that includes a higher share of VMT reductions compared to the Plan/Community scale.

^{NOTE B} Fare information available at <https://www.samtrans.com/fares/fare-types>.

^{NOTE C} The Gap Closure and Sidewalk Improvements measure is expected to reduce the community's VMT. Although these improvements would likely reduce project-level VMT, when calculating project-level VMT reductions, the CAPCOA Handbook does not recommend applying Plan/Community benefits with Project/Site benefits as these benefits are at two different scales. See MM-TR-4b (Hazards), below.

^{NOTE D} Total VMT reduction is calculated using this equation: $Reduction = 1 - [(1 - A) * (1 - B) * (1 - C)]$ where A, B, and C represent the percent reduction in VMT for a specific TDM Measure. The Project results in a VMT reduction of 29.5%.

^{NOTE E} The CAPCOA Handbook does not identify "Local Preference Units" as a quantified measure. If it were, it would be expected to be at the Project/Site scale and within the Land Use subsector. Applying this measure with a maximum reduction of 10.6% would result in a VMT reduction of 37.0%.

As shown in Table 3.10-7, VMT reductions would range between 29.5% and 37.0% based on the applicability of the Local Preference Agreement (range of reductions as noted in table above). Since the Local Preference Agreement allows for people who already live or work in the designated area, the potential VMT reduction could be 0% if everyone who moves to this project site already lives and works in the designated area, and thus commute distances would not change since people would still be commuting the same distances. If everyone who moves to the project site also works locally and previously lived outside of the designated area, then the maximum potential VMT reduction of 10.6% would apply. A mix of people who live or work in the designated area would fall in between the range of potential VMT reductions. This range of estimated VMT reductions would lessen the proposed project's daily home-based VMT per capita by resident of 23.6 to between 14.87 and 16.64, which is not below the VMT threshold for the Bay Area regional average (12.41) or the County average (11.56). However, at the subregional level focused on the urban Coastal TAZs between Devil's Slide and the City of Half Moon Bay, the proposed project with the VMT reductions shown in Table 3.10-7 would not exceed the Coastal TAZ baseline VMT with a 15% reduction (20.7).

Since the proposed project would have a significant VMT-related impact based on exceedance of the VMT threshold for the County average (11.56), mitigation is needed to reduce to a less-than-significant level.

TR-2 Mitigation Measure Recommendation

In addition to the proposed project characteristics (i.e., affordable housing and Local Preference agreement; C/CAG TDM measures incorporated as part of the project) and the additional pedestrian and bicycle network and transit stop improvements identified under MM-TR-4c), the project sponsor may consider implementing C/CAG TDM Checklist Measure M4 for participation in Commute.org or Transportation Management Association Equivalent.³⁴⁷ Currently, three Peninsula Traffic Congestion Relief Alliance (Commute.org) shuttles provide weekday service through San Mateo County. Although no shuttles operate service near the project site, Connect the Coastside encourages the development of innovative transit service solutions to better service the Midcoast residents, workers, and visitors. To support bicycle commuting as an option Commute.org has a Bicycle to Work Rewards Program that rewards San Mateo County residents, workers, and students up to \$100 for logging bicycle commutes that begin or end in the County. Additionally, commuters who live and work in San Mateo County are eligible for the Guaranteed Ride Home program, in which Commute.org will cover the cost of a ride home, up to \$60 per trip with a maximum of four trips per calendar year, in case of illness or bicycle theft/breakage.

MM-TR-2 Implement C/CAG TDM Checklist Measure M4

The project sponsor shall incorporate C/CAG TDM Checklist Measure M4- Actively Participate in Commute.org or TMA Equivalent: Certified participation in Commute.org/or TMA from the “Additional Recommended” list in the “Residential (Multi-Family) Land Use: Small Project” checklist. Consistent with C/CAG TDM Checklist Measure M3, the project sponsor shall ensure there is designated staff to communicate the availability of these resources and rewards to residents to encourage bicycling for commuting purposes and promote participation in Commute.org or Transportation Management Association Equivalent. C/CAG TDM Checklist Measure M4 shall be implemented as part of the new tenant move in procedures consistent with required C/CAG TDM Checklist Measure M2, and on a monthly basis with rent payment notice. In addition, to ensure that any changes to transportation benefits are communicated to tenants in a timely manner, the project sponsor (or designated TDM coordinator through Commute.org) shall use a private tenant noticing system or equivalent as needed.

Although implementation of MM-TR-2 would potentially reduce VMT, any changes are likely marginal and are unlikely to result in the additional VMT reductions needed to be at 15% below the County Average (11.56). Thus, given the location of the project site, the limited high-quality mass transit service in the study area, and the efficacy of both MM-TR4C and the required and additional C/CAG TDM Checklist measures included as part of the proposed project, there are no other feasible mitigation measures to reduce the project VMT from 23.6 to 11.56 (a 51% reduction). Therefore, the proposed project’s VMT impact would remain significant and unavoidable with mitigation.

Impact TR-3: Project-related traffic contributions to vehicle movements at the Carlos Street and SR-1 intersection would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). (Less Than Significant with Mitigation)

The conceptual site plan was reviewed to assess potential hazards due to project design or operations and incompatible land uses. For purposes of this hazards analysis, the design or operational features considered are site access, on-site circulation, and the proposed project’s traffic contributions to

³⁴⁷ C/CAG, 2023b.

dangerous intersections, i.e., those with restricted sight distances for existing operating speeds per the Caltrans Highway Design Manual.

The site plan shows adequate access from Carlos Street and adequate on-site circulation for the proposed residential development. The project entrance would be a new 28-foot-wide, two-lane driveway aligned with Carlos Street to provide a clear line of sight for vehicles approaching from both directions on Carlos Street. The proposed roadways within the project site (the project driveway off Carlos Street, the 25-foot-wide loop road, and the 20-foot-wide graveled road off Lincoln Street) are not part of a normal public route, and would only be used by visitors, building management staff, parcel delivery employees, and County staff for emergency response access and for maintenance access to the water tanks (Montara Sanitary and Water) on the east side of the project site. The proposed driveway off Carlos Street would not create line-of-sight or other design-related vehicular hazards such as sharp curves; therefore, on-site operational issues and operational issues on adjacent local roads (Carlos and Sierra streets) are not expected to occur as a result of the proposed project. Although Carlos Street does not have sharp roadway curves or street parking that would limit or obstruct the vision of exiting drivers from the project driveway off Carlos Street, the adjacent property to south between proposed driveway and the northeast corner of the intersection of Sierra and Carlos Streets includes an existing boundary wall and mature trees (if retained) that have the potential to restrict exiting drivers from seeing vehicles approaching from the left (south) along Carlos Street. As a result, it appears that drivers would need to move closer to the intersection to see oncoming vehicles. Although traffic volumes on Carlos Street do not suggest that this is a hazard, to optimize sight distance and thereby ensure that exiting drivers can see other vehicles traveling on Carlos Street, the project sponsor has committed to the addition of pavement markings and signage to alert drivers on Carlos Street of the intersection and this will be incorporated in an updated site plan for the project's entitlement review process (see EIR **Chapter 2, Project Description**).

In addition to site access and on-site circulation, the proposed project's traffic contributions to intersections along SR-1 were evaluated. Each of the intersections along SR-1 were first evaluated to determine if any of these have restricted sight distances that do not meet the Caltrans Highway Design Manual standards. Based on that evaluation, the intersection of SR-1 and Carlos Street, which would be the primary project site access point off SR-1, was found to provide 305 feet of sight distance to the south, which is 246 feet less than what is required for an intersection with a 50-mph facility such as SR-1, per Table 405.1A in the Caltrans Highway Design Manual.³⁴⁸ The inadequate corner sight distance at the SR-1/Carlos Street intersection makes it difficult for motorists on Carlos Street exiting onto SR-1 to see vehicles on SR-1 and judge adequate gap acceptance for safe entry onto SR-1. The steep topography and existing vegetation also make it difficult for motorists on SR-1 to see vehicles on Carlos Street attempting to exit onto SR-1. Additionally, a two-way left-turn lane is present along SR-1 between Carlos and 16th streets. Considering the need for deceleration before making a left turn from SR-1 to either Carlos Street or 16th Street, motorists making northbound left turns to 16th Street (to access the Montara Water and Sanitary District facilities and the Point Montara Lighthouse and hostel) and those making southbound left turns to Carlos Street represent overlapping and conflicting uses of the lane.

Because the SR-1/Carlos Street intersection is the closest point of access for project-related traffic to and from SR-1, the addition of southbound left-turning project traffic from SR-1 to Carlos Street would further contribute to potential conflicts between the two movements since both movements share a very short left-turn lane. The addition of project-related traffic to the westbound approach, which has inadequate corner sight distance, would also further contribute to potential conflicts at the SR-1/Carlos Street intersection. This would represent a significant impact and mitigation measures are recommended.

³⁴⁸ Caltrans, 2022.

TR-3 Mitigation Measure Recommendations

Because a relatively high number of rear-end collisions have occurred near the 16th Street intersection with SR-1 with collisions likely caused by roadway design and speeding, the County, as part of the Moss Beach/SR-1 Project (a Connect the Coastside priority project), initiated the first step in the Caltrans process for roadway improvements that would address the known traffic safety and congestion concerns at this location (see Section 3.10.2.5, Local). As a result, the proposed mitigation measures anticipate those actions as well as future County actions associated with Connect the Coastside and highlighted in its adopting resolution by the County Board of Supervisors.

MM-TR-3: Temporary Carlos Street Closure at State Route-1

In order to reduce the project-related traffic contributions to an existing traffic safety hazard at State Route-1 and Carlos Street, the project sponsor, in coordination with the County Department of Public Works and the Coastside Fire Protection District, will close the northern 500 feet of Carlos Street between State Route-1 and the proposed Carlos Street driveway to all vehicular traffic except emergency vehicles until the Moss Beach/SR-1 Project is constructed and in operation (expected 2030).

The closure shall be implemented with the placement of infrastructure such as knock-over bollards at the north end of Carlos Street and at its intersection with the proposed driveway (i.e., at each end of the 500-foot-long road segment) along with pavement markings and sign poles indicating “Emergency Vehicle Access Only”. At the Carlos Street driveway, the closure will be noticed with the placement of a sign pole and pavement markings at the Carlos Street driveway exit indicating “Left-Turn Only”. All road closure infrastructure at the Carlos Street/SR-1 intersection and Carlos Street and proposed project driveway will be temporary and will require a Caltrans encroachment permit and County approval to ensure that emergency vehicle access will not be inhibited.

Furthermore, all temporary improvements shall be consistent with the Moss Beach/SR-1 Project. Implementation authority for the Moss Beach/SR-1 Project rests jointly with the County and Caltrans; therefore, the recommended closure is a temporary solution until the County implements the Moss Beach/SR-1 Project. Ultimate improvements are expected to be consistent with Caltrans Highway Design Manual standards and provide adequate sight distance.

Implementation MM-TR-3 would address the existing traffic hazard for drivers accessing SR-1 from Carlos Street and for drivers exiting SR-1 to Carlos Street by restricting use of the north segment of Carlos Street by existing and project-related traffic. The existing and project-related traffic would be directed south on Carlos Street or Sierra and Stetson streets to access SR-1 at either Etheldore Street or California Avenue which are not identified as intersections with existing line-of-sight or traffic safety concerns. Implementation of MM-TR-3 would redistribute traffic to Etheldore Street or California Avenue and affect intersection operating conditions at SR-1 (see discussion under Impact TR-1).

Although implementation of MM-TR-3 would temporarily eliminate the need for addressing the existing traffic safety hazard at the SR-1/Carlos Street intersection associated with limited sight distance, curving roadway, steep topography, closely spaced intersections with short left-turn lanes, high traffic speeds, and dense vegetation, the ultimate improvements for Carlos Street, 16th Street, and SR-1 would be realized as part of the Moss Beach/SR-1 Project (see Section 3.10.2.5.1, Local Coastal Program). Furthermore, the temporary closure of Carlos Street would not conflict with future intersection design solutions to be developed through the Moss Beach/SR-1 Project, which is anticipated to include project alternatives with traffic signalization or single-/multi-lane roundabout design solutions. As discussed above under Section 3.10.2.5.1, Local Coastal Program, the County, working with Caltrans and other stakeholders, have contributed to or prepared the 2012 Highway 1 Safety and Mobility Improvement Study (Phase 2),

the 2015 Highway 1 Congestion and Safety Improvement Project Preliminary Planning Study, and Connect the Coastside (2022). The traffic safety and congestion improvement recommendations for Carlos Street, 16th Street, and SR-1 that stem from those planning efforts inform the Moss Beach/SR-1 Project and the project alternatives to be studied for feasibility. Thus, the proposed improvements are anticipated to include traffic signalization or roundabouts that would address the hazard impact on a permanent basis. In addition, the County may require the project sponsor to contribute a proportional payment for improvements based on project type, e.g., number of residential units and gross-square footage of non-residential uses as part of conditions of approval.

As noted, implementation authority for the Moss Beach/SR-1 Project would rest jointly with the County and Caltrans and is therefore out of the County's exclusive control, however, the County is committed to implementing these improvements. In the unlikely event that the County is unable to implement the Moss Beach/SR-1 Project, the temporary road closure of Carlos Street would remain to ensure that the significant impact would be reduced to a less-than-significant level. Therefore, implementation of MM-TR-3 would reduce the significant impact to a less-than-significant level. In addition, the project sponsor has committed to implementing driveway improvements at the Carlos Street intersection to improve a line-of-sight concern related to existing landscape features (see EIR Chapter 2, Project Description).

Impact TR-4: Project-related pedestrians and bicyclists would be exposed to roadway-related hazards at the State Route 1 and Carlos Street intersection due to a geometric design feature (e.g., sharp curves or dangerous intersections). (Significant and Unavoidable with Mitigation)

The immediate transportation circulation system is dominated by SR-1. The various Midcoast transportation planning studies along SR-1, including Connect the Coastside, identified existing transportation-related hazards on SR-1 being lack of sidewalks; lack of crossing opportunities; high speed traffic; vegetation and roadway design that limits visibility or safe lines-of-sight; and limited lighting. Traveling south from Pacifica, the first signalized intersection is at Capistrano Road, beyond the communities of Montara and Moss Beach, and the next is not until Coronado Street, almost a mile to the south.

As described in Section 3.10.1.1.2, Existing Pedestrian and Bicycle Network, there are no marked crosswalks on SR-1 where it intersects with Carlos Street or Etheldore Street, the closest intersections to the project site, or at California Avenue. There is a marked, uncontrolled crosswalk on SR-1 at Virginia Avenue, one block south of California Avenue. Bicyclists and pedestrians residing in this area of Moss Beach likely use Carlos Street, Etheldore Street, or California Avenue to travel north along SR-1 via foot or bike to Montara to access neighborhood commercial goods and services along Main Street, the Farallone View Elementary public school, and the northbound SamTrans Route 117 stop (the closest to the project site) among other destinations. Bicyclists and pedestrians would also cross SR-1 at these locations to access the southbound SamTrans Route 117 stop and other destinations in Moss Beach on west side of SR-1 such as the Point Montara Lighthouse. The northbound and southbound shoulders along this segment of SR-1 do not include sidewalks or bicycle facilities. Thus, pedestrians and bicyclists currently travel along SR-1 or cross SR-1 at unsignalized intersections in Moss Beach such as Carlos and Etheldore streets, or at the midblock; all of which are identified hazards due to lack of facilities, line-of-sight deficiencies, and traffic speeds. More likely, people choose not to walk or bike and instead just drive to destinations that should be considered within walking or biking distance or, if planned correctly, walking plus transit distance.

Implementation of the proposed project would add approximately 213 people to the local population, some of whom would walk, bike, and/or use transit. The project sponsor would also implement a series of C/CAG TDM Checklist measures as part of the proposed project to encourage walking, bicycling, and use of public transit. Assuming successful adoption, an increased share of future residents would walk, bike,

or use transit to access goods and services, schools, and other destinations. Thus, the proposed project has the potential to lead to an increase in pedestrians and bicyclists accessing the nearest Route 117 bus stop on west side of SR-1 south of 16th Street opposite Carlos Street where there is no marked crosswalk across SR-1 to safely access. Furthermore, as discussed under Impact TR-3, SR-1 traffic speeds are high and there is inadequate corner sight distance where Carlos Street meets SR-1 for pedestrians and bicyclists to see vehicles and for motorists on SR-1 to see crossing pedestrians and bicyclists. However, information provided to project residents by the developer could minimize this potential by providing directions to other bus stops within 0.5 miles of the site that do not require the crossing of intersections with such safety concerns. Because it cannot be guaranteed that project residents will use the safer routes/bus stops, implementation of the proposed project could expose future residents who choose to walk, bike, or use transit to an existing safety hazard. This is considered a significant impact and mitigation measures are recommended.

TR-4 Mitigation Measure Recommendation

MM-TR-4a Implement MM-TR-3 (Temporary Carlos Street Closure at State Route-1)

Implementation of MM-TR-3: Temporary Carlos Street Closure at State Route-1 would resolve the traffic safety hazard by restricting existing and project-related traffic through a road closure to be approved by the County Department of Public Works; but since it would remain open for pedestrians and bicyclists, the safety hazard for pedestrians and bicyclists would not be entirely resolved. Therefore, the impact would remain significant and unavoidable. As described in Section 3.10.2.5.1, Local Coastal Program, the range of intersection design solutions under consideration with the Moss Beach/SR-1 Project, a priority project identified in Connect the Coastside, would resolve both the traffic safety and pedestrian/bicyclist safety hazards. Because implementation of this mitigation measure is not within the full control of the project sponsor or the County, the impact would remain significant and unavoidable in the event that the Moss Beach/SR-1 project is not completed.

MM-TR-4b Augment C/CAG TDM Checklist Measure M3

In addition to the proposed project characteristics (i.e., affordable housing and Local Preference agreement; C/CAG TDM Checklist measures incorporated as part of the project; and the additional pedestrian and bicycle network and transit stop improvements identified under MM-TR-4c, below), the project sponsor shall augment standard educational materials associated with the C/CAG TDM Checklist M3 to support safe and sustainable active transportation.

Consistent with C/CAG TDM Checklist Measure M3, the project sponsor shall ensure there is designated staff to develop educational materials that includes pedestrian, bicycle, and vehicle safety-related information for review and approval by County. Educational materials shall include, but not be limited to, a bus stop location map highlighting stops that do not require travel along or across SR-1, pedestrian and bicycle route network map highlighting potential hazards (e.g., no marked crosswalk, discontinuous sidewalk, narrow roadway), and other site-specific safety-related information.

Although implementation of MM-TR-4b could potentially dissuade a share of the pedestrians and bicyclists from crossing SR-1 or traveling north along SR-1 to access the more proximate SamTrans Route 117 SB and NB bus stops or for local travel, there is no way to measure the reduction; therefore, the proposed project's hazard impact would remain significant and unavoidable with mitigation.

MM-TR-4c Additional Transportation Demand Management Measures

In addition to the C/CAG Transportation Demand Management measures included as part of the proposed project to reduce project-related vehicle trips and promote carpooling and non-auto modes of travel to improve mode share, the project sponsor in coordination with the County shall implement, or facilitate the implementation of, the additional pedestrian-, bicycle-, and transit-related TDM measures detailed below. The additional TDM measures focus on the filling of gaps in the existing pedestrian and bicycle network in the vicinity of the project site and within Moss Beach to facilitate commute, household, and recreation trips by foot, bicycle, or transit; and commits the project sponsor to a fair share contribution to transit stop improvements at selected SamTrans stops. All proposed improvements would be designed to meet accessibility requirements and the needs of all users consistent with County and Caltrans' Complete Streets policies.

Off-Site Pedestrian Network and Access to Transit Improvements

- Stetson Street/Kelmore Street
 - Add a curb ramp with truncated domes on the northeast corner if feasible with fire station configuration and drainage.
 - Add a high-visibility crosswalk for pedestrians to cross Kelmore Street and connect to the existing sidewalk on the east side of Stetson Street.
- Stetson Street/California Avenue
 - Add a curb ramp and high-visibility crosswalk with advanced stop bar to cross Stetson Street (from northeast corner to northwest corner toward Etheldore Street).
- California Avenue/Etheldore Street
 - Add a curb ramp and high-visibility crosswalk with advanced stop bar for pedestrians to cross California Avenue and access the northbound bus stop at the southeast corner of intersection.
 - Add a curb ramp and high-visibility crosswalk with advanced stop bar for pedestrians to cross Etheldore Street and access the southbound bus stop at the northwest corner of intersection.
- California Avenue, south of Etheldore Street
 - Add approximately 80 feet of new sidewalk on north side of California Avenue to connect to the existing sidewalk and downtown Moss Beach.

Off-Site Bicycle Network Improvements

- Sierra Street
 - Provide sharrows on Sierra Street between project site and California Avenue to connect to the planned Class III Bikeway on California Avenue identified in the Unincorporated San Mateo County Active Transportation Plan.
- California Avenue
 - Provide sharrows on California Avenue between Sierra and Carlos streets to assist with implementation of the planned Class III Bikeway along California Avenue between Tierra Alta Street and North Lake Street, as identified in the Unincorporated San Mateo County Active Transportation Plan.

Off-Site Transit Stop Improvements

- Evaluate the need for the project sponsor to contribute toward accessible bus stops at the southeast and northwest corners of California Avenue/Etheldore Street including provision of bus benches at each stop if feasible based on topography and other site constraints.

Implementation of the C/CAG TDM Checklist measures that are part of the proposed project, MM-TR-2 (Implement C/CAG TDM Checklist Measure M4), and these additional TDM measures would shift some of the project-related vehicle trips to alternative modes of travel such as walking, bicycling or transit or reduce the overall need for travel (e.g., by providing improved delivery services on-site to reduce the need for additional shopping trips). The proposed sidewalk network improvements connecting to the Sam Trans Route 117 bus stops within Moss Beach at California Avenue/Etheldore Street (approximately 0.5 mile from project site), the improvements to the bus stops, and dissemination of relevant traffic safety concerns to residents may dissuade a share of the potential transit users from crossing SR-1 or traveling north along SR-1 to access the much closer SamTrans bus stops. Although the effectiveness of a TDM plan cannot be guaranteed, in aggregate, the various TDM measures may simultaneously increase and reduce the demand for people crossing SR-1 or traveling north along SR-1. Thus, implementation of MM-TR-4c would not reduce the impact to a less-than-significant level.

In summary, implementation of the Moss Beach/SR-1 Project would address the existing and long-standing traffic safety and pedestrian and bicycle hazard concerns at the intersections of SR-1, Carlos Street, and 16th Street. However, implementation authority for the Moss Beach/SR-1 Project rests jointly with the County and Caltrans and is therefore out of the County's exclusive control. If the County is unable to fund the completion of the intersection improvement, as proposed by the Moss Beach/SR-1 Project, this impact would remain significant and unavoidable.

Impact TR-5: Project-related pedestrians would be exposed to roadway hazards due to a discontinuous sidewalk network. (Less than Significant with Mitigation)

Implementation of the proposed project would add approximately 213 people to the local population, some of whom would walk to access neighborhood commercial goods and services within Moss Beach. As discussed under Impact TR-4, successful implementation of the C/CAG TDM Checklist measures that are part of the proposed project, and the additional TDM measures listed in MM-TR-4b would shift some of the project-related vehicle trips to alternative modes of travel such as walking, bicycling or transit. Although the effectiveness of a TDM plan cannot be guaranteed, assuming successful implementation and adoption of the various TDM measures the demand for people using the sidewalk network would increase.

As described in Section 3.10.1.1.2, Existing Pedestrian and Bicycle Network, there is no sidewalk connection to the community of Montara and the existing sidewalk network connecting the project site to the rest of Moss Beach is discontinuous. Where sidewalks are absent or require maintenance, pedestrians walk along paved or unpaved shoulders or in the roadway. In addition, there are no marked crosswalks at any of the intersections on the local roadway network or on SR-1 where it intersects with Carlos Street, Etheldore Street, and California Avenue.

The site plan shows a complete on-site sidewalk network but there is only one connection to the greater sidewalk network, via the north sidewalk on Sierra Street. There are no marked crosswalks at Sierra Street to Stetson Street to access the discontinuous sidewalk networks along Stetson and/or Kelmores streets to California Avenue. This is one potential pedestrian route to connect to the SamTrans bus stops at Etheldore Street/California Avenue, the Moss Beach neighborhood commercial area centered around the SR-1/California Avenue intersection, and other destinations within Moss Beach. However, the most direct pedestrian route from the project site to the center of Moss Beach is via Carlos Street, but it does not

include sidewalks. Carlos Street does include a wide shoulder on its west side which is routinely used based on site observations and visual surveys.

Thus, pedestrian access from the site to the local sidewalk network on Sierra Street places project residents at a location without marked connections to the sidewalks on Stetson and Kelmore streets. Furthermore, the most direct pedestrian route to central Moss Beach is along Carlos Street which includes no sidewalks. These gaps in the sidewalk network would require project residents to walk in the street increasing the likelihood of pedestrian/vehicle interactions. Therefore, without safe connections from the project site to the sidewalks on Stetson Street across Sierra Street or pedestrian infrastructure improvements along Carlos Street, project residents would be exposed to roadway hazards, resulting in the potential for decreased pedestrian safety. This potential increase in pedestrian/vehicle interactions would be a hazard and would represent a significant impact. Mitigation measures are recommended to reduce the impact.

TR-5 Mitigation Measure Recommendation

MM-TR-5 Implement MM-TR-4b and MM-TR-4c

Implementation of the C/CAG TDM Checklist measures that are part of the proposed project, e.g., TDM Measure M23 (Gap Closure), and the additional TDM measures listed in MM-TR-4b, and MM-TR-4c would result in the following:

- Filling in of gaps in the sidewalk network south of the project site including marked crosswalks, i.e., discrete locations within approximately 0.5 mile of the project site;
- Development of safety-related materials as part of C/CAG TDM Checklist Measure M3;
- Improvements at the northbound and southbound SamTrans bus stops at Etheldore/California Avenue; and
- New shared roadway markings (sharrows) on Carlos Street, Sierra Street, and California Avenue (Class III Bike Routes) to promote bicycle safety.

Implementation of the C/CAG TDM Checklist measures and the pedestrian-related measures of MM-TR-4b and MM-TR-4c would limit the potential for pedestrian/vehicle interactions and reduce the significant impact to a less-than-significant level. In addition, the project sponsor has committed to implementing on-site circulation improvements to promote pedestrian and bicycle connections from the site to the local sidewalk and bicycle network (see EIR Chapter 2, Project Description).

Impact TR-6: Buildout of the project would not result in inadequate emergency access. (Less than Significant).

The fire/emergency medical services provider closest to the project site, Coastside Fire Protection District Station 44, is located on Stetson Street between Sierra and Kenmore streets less than a block south of the project site. Currently, access to the project site is provided from Carlos Street via a 10-foot-wide easement/graveled road (Buena Vista Street), which runs through the center of the site roughly parallel to Sierra Street and connects to the existing 35-foot-tall water tanks on the eastern edge of the project site near Lincoln and Buena Vista streets (an existing secondary access).

The proposed 28-foot-wide two-lane driveway off Carlos Street would be the primary access to the proposed residential development and associated parking areas (see Figure 2.5-1 in EIR Chapter 2). The Carlos Street driveway and 25-foot-wide on-site loop road would comply with County and California Fire Code requirements for emergency vehicle access. On the northeast portion of the site the proposed loop road would connect to a 20-foot-wide gravelled road that would provide secondary access to the

project site from Lincoln Street. The final design of all circulation improvements is expected to adhere to all applicable County and other statutes and requirements, including, without limitation, those set forth in the California Fire Code and California Vehicle Code. Given this, there would be sufficient access for emergency vehicles. The proposed project would not inhibit emergency access and the impact would be less than significant. The final plans will be approved by the Fire Department prior to the issuance of permits for the proposed project. See Section 3.12, Wildfire, for a discussion of evacuation plans and potential routes and capacity in the case of a wildfire emergency.

TR-6 Mitigation Measure Recommendation

None.

3.10.3.3.1 CONSTRUCTION ASSESSMENT

For informational purposes a construction assessment is provided (also see EIR **Chapter 2, Project Description**, Table 2.6-1). In the short term, construction-related traffic to and from the project site associated with the transport of off-site construction equipment, site preparation such as hauling of spoils, delivery of building materials, and activities of construction workers would occur. It is anticipated that on each work day during the 18-month construction schedule there would be an average of 10 to 78 one-way construction worker vehicle trips, an average of 2 to 8 one-way vendor truck trips, and an average of 2 to 300 one-way off-haul truck trips with variations based on construction phase demolition, site preparation, grading, building construction, paving, and finalization (interior finish and site landscaping). The short-term construction traffic related to delivery of equipment, import/export of spoils, delivery of building materials as well as the daily transportation of construction workers to the site is not expected to cause a significant increase in traffic volumes. Further, construction-related traffic would not increase traffic congestion resulting in operational deficiencies because these short-term activities would be temporary.

3.10.3.3.2 PARKING ASSESSMENT

For informational purposes a parking assessment is provided. It evaluates the adequacy of parking for the proposed project against San Mateo County zoning regulations on parking and parking demand, as estimated based on industry standards. Based on County zoning regulations, a 71-unit apartment complex must provide 127 parking spaces as shown in Table 3.10-8. As described above under Section 3.10.3.2.1, Proposed Development Characteristics, the proposed project would provide 142 parking spaces. Therefore, the proposed project would provide 15 more parking spaces than required.

Table 3.10-8. Parking Requirements for Proposed Project

Apartment Type	Number of Units	Parking Rate (Per Unit)	Parking Required
One bedroom	16	1.2	20
Two bedroom	37	1.5	56
Three bedroom	18	2	36
Guest Parking*		0.2	15
Total			127

Source: Kittelson & Associates 2023 (see EIR Appendix Q).

* Guest parking at one space per five units

An estimate of parking demand was performed using the *Parking Generation* manual published by ITE.³⁴⁹ This manual is a standard transportation industry document that estimates the demand for parking based on studies conducted at similar sites. The land use in the ITE manual that is the most similar to the proposed project is the Low/Mid-Rise Apartment (LU 221) since the Apartment (LU 220) is not available.

Based on the demand rates from previous studies compiled in the ITE Manual, the average demand for a 71-unit apartment complex would be about 88 parking spaces while the maximum observed demand would be about 138 parking spaces, as shown in Table 3.10-9. This demand includes demand from any guests as well as residents. With a parking supply of 142 spaces, the proposed project is expected to have about 4 more parking spaces than the anticipated maximum demand.

Table 3.10-9. Average Estimated Parking Demand for Proposed Project

Parking Demand*	Number of Units	Demand Rate†	Parking Spaces Needed
Average	71	1.23	88
Maximum Observed		1.94	138

Source: Kittelson & Associates 2023 (see EIR Appendix Q).

* Demand based on ITE *Parking Generation* manual, 4th ed. (LU 221)

† Demand rate in vehicles per apartment

Under both criteria, the amount of parking shown on the site plan would be adequate to meet the demand.

Additionally, electric vehicle (EV) parking requirements are determined by the California Green Building Code, which was updated in 2022. The code requires 10% of parking spaces be EV-capable spaces (i.e., 15 parking spaces for the proposed project), 25% be equipped with low-power charging receptacles (i.e., 36 parking spaces for the proposed project), and 5% be equipped with Level 2 Electric Vehicle Supply Equipment (EVSE) which would translate into 8 parking spaces for the proposed project. As described above under Section 3.10.3.2.1, Proposed Development Characteristics, the proposed project would provide 57 parking spaces equipped with electric vehicle charging infrastructure (21 standard EVSE spaces and 36 low-power spaces), which would meet the California Green Building Code requirements and the County’s electric vehicle parking requirements in the current Building Regulations.

3.10.3.3.3 CUMULATIVE IMPACTS

Past, present, and reasonably foreseeable future land development and roadway projects included in the cumulative analysis are based on discussions with the San Mateo County Planning and Building Department (see EIR **Chapter 3, Environmental Impacts Analysis**, Table 3-1 and Figure 3.0-1). Among the listed cumulative projects are the approved, but not yet constructed, projects south of the project site in the Princeton/Pillar Point Harbor area of unincorporated San Mateo County: a recreation vehicle (RV) park located at the corner of SR-1 and Capistrano Road and the Big Wave Wellness Center assisted housing and office park development. All cumulative land development projects would add vehicle trips to the roadway network and new users to the local pedestrian and bicycle networks and the public transit system.

³⁴⁹ ITE. 2010. *Parking Generation: an ITE informational report*, 4th ed. Institute of Transportation Engineers, Washington, D.C.

Impact C-TR-1: The proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable transportation impact related to a conflict with a program, plan, ordinance, or policy addressing the circulation system. (Less than Significant)

The cumulative development projects identified in Table 3-1 would be required to follow the County's LCP policies and any applicable transportation-related program, plans, ordinances, and policies addressing the circulation system, e.g., LCP Policy 2.52, C/CAG TDM Ordinance, Complete Streets. As noted in the County's LCP and Connect the Coastsides (see Section 3.10.2.5.1, Local Coastal Program), prior to approval of a CDP, each land use development project along the local coastal zone must address the potential effects of new demand on public infrastructure including on the safety and operation of the vehicular circulation system which includes safety and traffic congestion considerations as part of Complete Streets planning principles. The Caltrans's SR-1 Route 1 Multi-Asset Roadway Rehabilitation Project is associated with the larger interagency stakeholder process discussed under Section 3.10.2.5.1, Local Coastal Program. This project stems from the Highway 1 Safety and Mobility Study (Phase 1 and Phase 2) and is a recommended project in Connect the Coastsides. This multi-asset rehabilitation project is consistent with Phase 1 improvements, Connect the Coastsides, and Complete Streets.

Like the proposed project, each of the cumulative land development projects identified in Table 3-1 would be required to undergo site plan reviews and plan checks to ensure road standards and Complete Street policies are met, that C/CAG TDM Checklist measures are identified, and that additional TDM measures and conditions of approval are identified, as applicable. TDM measures are intended to promote shifts from driving to walking, biking and using transit and a reduction in the demand for travel, consistent with the County's LCP, Connect the Coastsides, the C/CAG TDM Policy, and Complete Streets. As noted, for each cumulative land development project these requirements would be applied in the development review process for a CDP through the County's LCP and as part of CEQA compliance. As discussed in Section 3.10.3.3 under Impact TR-1, the proposed project would not be inconsistent or in substantial conflict with applicable programs, ordinances, or policies addressing the circulation system. Therefore, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, and assuming implementation of TDM measures, would not result in a cumulatively considerable transportation impact related to conflicts with a program, plan, ordinance, or policy addressing the circulation system.

As discussed in Section 3.10.3.3 under Impact TR-1, the County's LCP (Policy 2.52) requires the development of a traffic impact analysis and mitigation plan for the proposed project. Each of the cumulative land development projects identified in Table 3-1 would also be required to prepare their own traffic impact analyses for purposes of determining project-related contributions to less than desired LOS consistent with Connect the Coastsides. As discussed under Impact TR-1, the 2040 cumulative conditions in the 2023 Cypress Point TIA are based on the C/CAG-VTA San Mateo County Travel Demand Model which includes future development throughout the region (including the cumulative projects listed in Table 3-1). The 2040 cumulative forecasts are consistent with regional growth totals projected by the Plan Bay Area 2050.³⁵⁰ Therefore, the traffic forecasts reflect both growth in Moss Beach and increases in traffic volumes on SR-1 due to regional growth. Base year (Year 2013) and future year (Year 2040) forecasts were extracted from the model and linearly interpolated to develop growth between the traffic count year (2017) and the current model horizon year (2040). The intersection LOS analysis under Impact TR-1 shows that the addition of project-related vehicle trips to the critical movements at the SR-1/16th Street (No. 2), Carlos Street (No. 3), Etheldore Street (No. 6), and California Avenue (No. 7) intersections

³⁵⁰ ABAG/MTC, 2021.

under 2040 cumulative conditions are projected to result in project-related contributions to average delays of 4 seconds during the weekday morning, weekday afternoon, and Saturday midday peak periods. These projected contributions would exacerbate conditions at intersections operating with a less than desired LOS as defined in LCP Policy 2.43 (i.e., LOS E and LOS F).

The mitigation measures identified for the project-specific CEQA impacts associated with VMT and Hazards (MM-TR-2 [C/CAG TDM Checklist Measure M4], MM-TR-4b [Augment C/CAG TDM Checklist Measure M3], and MM-TR-4c [Additional TDM Measures]) would reduce vehicle trips at the study intersections to the extent feasible but would not resolve the reduction in delays that contribute to the less than desired LOS. As noted under Impact TR-1, the safety and operational concerns at the SR-1/16th Street (No. 2), Carlos Street (No. 3), Etheldore Street (No. 6), and California Avenue (No. 7) intersections would be addressed as part of the Moss Beach/SR-1 Project, a priority project initiated soon after adoption of Connect the Coastside.

Thus, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable transportation impact related to conflicts with an applicable program, plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system.

Impact C-TR-2: The proposed project, in combination with other past, present, and reasonably foreseeable future projects, would result in a cumulatively considerable transportation impact related to VMT and consistency with State CEQA Guidelines Section 15064.3(b). (Significant and Unavoidable with Mitigation)

The cumulative development projects identified in Table 3-1 would be required to follow the County's Interim VMT guidance using the VMT screening criteria, e.g., project type and location, to determine if exempt from detailed VMT analysis. If not exempt, a detailed quantitative analysis is required to determine if the project can meet the County's threshold of 15% below the countywide VMT average. Like the proposed project, cumulative development projects would be required to incorporate C/CAG TDM Checklist measures and any project-related mitigation measures to shift vehicle trips to other modes or to reduce the overall demand for travel. Unlike land development projects, roadway projects are evaluated to determine if they would induce VMT, e.g., roadway expansion. The Caltrans' SR-1 Route 1 Multi-Asset Roadway Rehabilitation Project is not a roadway expansion project; thus, it would not contribute to cumulative transportation impacts related to VMT.

As discussed under Impact TR-2, although the proposed project would be screened from detailed VMT analysis based on classification as an affordable housing project on an urban infill site, a quantitative analysis prepared to be conservative showed that it would result in a significant and unavoidable project-level impact because it would exceed the calculated daily average VMT threshold for a residential project even with implementation of mitigation. No mitigation measures beyond those required through the C/CAG TDM Checklist and identified as MM-TR-2, MM-TR-4b, and MM-TR-4c would reduce this impact to a less-than-significant level. By exceeding the daily VMT threshold after implementation of available mitigation, the proposed project would not be consistent with CEQA Guidelines Section 15064.3(b) and would incrementally contribute to a cumulative transportation related impact associated with meeting VMT reduction goals (15% below countywide VMT averages) and the targeted GHG emission reductions. Cumulative development projects in this area of the unincorporated County would, like the proposed project, also incrementally contribute to a cumulative transportation impact related to VMT because the effectiveness of the transportation demand control measures in the coastal context cannot be guaranteed.

Thus, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, and assuming implementation of measures, would result in a cumulatively considerable transportation impact related to VMT and would result in a cumulatively considerable contribution to a significant cumulative transportation impact related to VMT.

Impact C-TR-3: The proposed project, in combination with other past, present, and reasonably foreseeable future projects, would result in a cumulatively considerable transportation impact related to hazards. (Significant and Unavoidable with Mitigation)

As discussed under the project-specific hazards analyses under Impact TR-3, Impact TR-4, and Impact TR-5, the proposed project would add new vehicles, pedestrians and bicyclists to the SR-1/Carlos Street (No. 3) and SR-1/16th Street (No. 2) intersections and to a discontinuous sidewalk and bicycle network within a 0.5-mile radius of project site thus increasing the potential for hazardous interactions between motorists, pedestrians, and bicyclists. The segment of SR-1 with these two intersections is a curving roadway with high traffic speeds, steep topography, dense vegetation, closely spaced intersections and left-turn lanes, and limited lines-of-sight. It has been evaluated as part of the comprehensive Connect the Coastside transportation planning process resulting in the Moss Beach/SR-1 Project, a priority project initiated and funded by County (see Section 3.10.2.5.1, Local Coastal Program).

Implementation of MM-TR-3 (Temporary Carlos Street Closure at SR-1) would resolve the impact at the SR-1/Carlos Street intersection due to limited sight distance for project-related motorists accessing SR-1 from Carlos Street by prohibiting all existing and project-generated traffic from using SR-1/Carlos Street. Implementation of a suite of TDM measures, i.e., the required C/CAG TDM Checklist measures, MM-TR-2, MM-TR4b, and MM-TR-4c to the extent feasible, would reduce overall demand for travel and shift a percentage of drivers to other modes of transportation; however, the impact would remain significant and unavoidable because the effectiveness of the identified TDM program is not guaranteed. Also, any offsets in vehicle trip contributions at hazardous locations as a result of the TDM program may result in additional project-related pedestrians and bicyclists on the local sidewalk and local roads also increasing the potential for conflicts. Further, implementation of MM-TR-3 (Temporary Carlos Street Closure at SR-1), MM-TR-2, MM-TR-4b, and MM-TR-4c would minimize to the extent feasible but not fully resolve the impact at the SR-1/Carlos Street intersection for pedestrians and cyclists accessing SR-1 from Carlos Street.

Each of the cumulative land development projects identified in Table 3-1 would add vehicle trips to the roadway network and new users to the local pedestrian and bicycle networks and the public transit system. The proposed Etheldore Apartments Project is the only cumulative project that would add vehicle trips and new users such as pedestrians and bicyclists to Carlos Street and other local roads in Moss Beach as well as the stop-controlled side streets (or critical movements) at the intersections of SR-1/California Avenue/Wienke Way (No. 7), SR-1/Etheldore Street/Vallemar Street (No. 6), SR-1/Carlos Street (No. 3), and SR-1/16th Street (No. 2). Like the proposed project, implementation of the proposed Etheldore Apartments Project and other more distant cumulative land development projects (Montara, Princeton, Half Moon Bay) would be subject to a similar set of regulatory requirements, including required C/CAG TDM Checklist measures; project-specific mitigation measures; and conditions of approval. All such measures are intended to promote shifts from driving to walking, biking, and using transit and a reduction in the demand for travel, consistent with the County's LCP, Connect the Coastside, the C/CAG TDM Policy, and Complete Streets. For each cumulative land development project, these requirements would be applied through the coastal development review process under the County's LCP and as part of CEQA compliance.

Cumulatively considerable contributions of the proposed project and the proposed Etheldore Apartments Project to cumulative transportation-related hazard impacts at the SR-1/Carlos Street and SR-1/16th Street

intersections for pedestrian and cyclists would occur even with implementation, to the extent feasible, of project-specific mitigation measures, i.e., MM-TR-2, MM-TR-3, MM-TR-4b, and MM-TR-4c. However, when considered in the context of the improved intersection design/geometrics/controls (e.g., roundabout or signalized intersections with high-visibility crosswalk) for the SR-1/Carlos Street and SR-1/16th Street intersections proposed in the Moss Beach/SR-1 Project, the proposed project and the proposed Etheldore Apartments Project would not contribute considerably to a cumulative transportation impact related to hazards because the congestion and safety concerns would be resolved. As discussed, the Moss Beach/SR-1 Project is anticipated for construction in 2029 and operation in 2030; and, if implemented, would resolve project-related congestion and safety concerns (new and/or exacerbated) at the SR-1/Carlos Street and SR-1/16th Street intersections among other locations along SR-1 in Moss Beach. However, because proposed improvements to SR-1/Carlos Street and SR-1/16th Street require changes to the Caltrans rights-of-way implementation is not in control of the County and is not guaranteed. Thus, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would result in a cumulatively considerable contribution to a significant cumulative transportation impact related to hazards even with implementation of project-specific mitigation measures to the extent feasible, i.e., MM-TR-2, MM-TR-3, MM-TR-4b, and MM-TR-4c.

Impact C-TR-4: The proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable transportation impact related to emergency access. (Less Than Significant)

As discussed under Impact TR-6 (Emergency Access), the proposed project would not inhibit emergency access and the impact would be less than significant. Among the cumulative land use development projects that could combine to inhibit emergency access in the study area (Moss Beach) is the proposed Etheldore Apartments Project, an 8-unit residential development at 2385 Carlos Street. Cumulative land use development projects including the Etheldore Apartments Project would be required to go through their own CEQA review process. Each project would also go through a County review process that includes Public Works and the Coastside Fire Protection District and requires that the design of proposed circulation improvements, if any, adhere to all applicable County and other statutes and requirements, including, without limitation, those set forth in the California Fire Code and California Vehicle Code for emergency access. Therefore, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a cumulative transportation impact related to emergency access.

3.11 UTILITIES AND SERVICE SYSTEMS

This section describes the potential impacts to utilities and service systems with development of the proposed multi-family residential use. Potential effects are evaluated relative to the infrastructure and supply of water and wastewater. Information for this section was obtained from the Montara Water and Sanitary District (MWSD), Sewer Authority Mid-Coastside (SAM), and Recology of the Coast (Recology) services.

3.11.1 Existing Conditions

3.11.1.1 Water

The MWSD provides water, sanitary sewer, and solid waste disposal services to the coastal communities of Montara, Moss Beach, and adjacent areas located north of Half Moon Bay and south of Pacifica, in San Mateo County, California. It does not issue building permits or oversee growth and development. Except for water service that may be provided to property that has already been developed and is served by on-site wells, new connections to the MWSD system may only be made for property approved for development by the County of San Mateo, subject to the County's building, planning, and zoning regulations, and the County's Local Coastal Program (LCP).³⁵¹

MWSD owns and operates water storage, treatment, and distribution facilities that currently provide domestic water to approximately 1,660 domestic water connections, most of which (approximately 90%) are single-family and multi-family residential connections. This equates to approximately 6,000 residents. The remaining connections serve commercial and industrial customers.³⁵² Approximately 151 private fire protection meters are also connected to the MWSD's system; these meters only draw water in the event of a fire.³⁵³

3.11.1.1.1 WATER SOURCES

Water in the MWSD is supplied by groundwater sources from San Mateo Coastal Basin aquifers and surface water from Montara Creek. Currently, MWSD operates 12 active groundwater wells with a combined rated capacity of 602 gallons per minute (gpm).³⁵⁴ The Alta Vista, North Airport Well, South Airport Well, and Airport Well No. 3 produce more than half the groundwater. However, the reliable capacity of the system is defined as the capacity of the system with the largest source out of service. Assuming the largest source (i.e., the Alta Vista groundwater well) is out of service, the reliable capacity of the system would be 527 gpm or 758,880 gallons per day (gpd).³⁵⁵ Production records between 2004 and 2016 show variable yields from the MWSD wells due to operational constraints and maintenance issues. The wells typically operate no more than 12 hours in a given day, depending on water quality, well location, and system demands. According to monthly production records in 2016, the average production rate of the 12 wells was 365 gpm while in operation, or about 61% of their rated capacity.³⁵⁶

³⁵¹ MWSD. 2023. "Frequently Asked Questions." Available at: <https://mwsd.montara.org/about/faq>. Accessed June 21, 2023.

³⁵² MWSD, 2023.

³⁵³ MWSD. 2018. *SAM Flow Report for January 2018*. Available at: https://mwsd.montara.org/assets/docs/board/collateral/121/Consent_4.pdf. Accessed June 21, 2023.

³⁵⁴ MWSD. 2017. *2017 Water System Master Plan*. Available at: https://mwsd.montara.org/assets/uploads/documents/MWSD_2017%20Master%20Plan%20Update_Rev17_082417_Full.pdf. Accessed June 21, 2023.

³⁵⁵ MWSD, 2017.

³⁵⁶ MWSD, 2017.

Montara Creek is the MWSD's surface water source. Pre-1913 water rights allow MWSD to divert up to 200 gpm from Montara Creek, subject to regulatory and resource agency approvals; however, the availability of such a flow rate is uncertain.³⁵⁷ In addition, the California Department of Fish and Wildlife occasionally limits diversion rates at certain seasons to protect endangered species.

Each water source has a rated capacity established at the time it was brought online; however, all sources typically operate below their respective rated capacities. Rated capacities are used to determine the reliable capacity and the maximum serviceable demand of the water system. In total, MWSD sources currently have a combined rated capacity of 677 gpm, with 602 gpm provided by 12 active groundwater wells, and 75 gpm provided by Montara Creek surface water.³⁵⁸

3.11.1.1.2 WATER INFRASTRUCTURE SYSTEM

The MWSD water system includes untreated water and treated water storage facilities.³⁵⁹ MWSD supplies potable water to customers through a distribution system of pipes approximately 150,000 feet long and ranging in diameter from 2 to 16 inches, one water booster station with two pumps, and 28 pressure-regulating valve stations.³⁶⁰ There are several pressure-regulating valve stations near the project site, including the stations at Buena Vista and Lincoln Streets, Sierra and Lincoln Streets, and 14th and Farralone Streets. Water is received from seven treated water storage tanks, 12 groundwater wells, and the surface and groundwater treatment facilities at the Alta Vista site, the Pillar Ridge site, and wellheads.³⁶¹

Untreated surface water is diverted from Montara Creek through a 6-inch diameter pipeline and is stored in a 77,000-gallon concrete raw water storage tank that allows for the settling of initial sediment and suspended solids. After approximately 15 hours of detention time, the surface water is conveyed to the Alta Vista Water Treatment Plant. Presently, the Alta Vista Water Treatment Plant has a rated operating capacity of 75 gpm. Treated water is stored in the 462,000-gallon Alta Vista Treatment Tank No. 1 or 500,000-gallon Alta Vista Treatment Tank No. 2 and then conveyed to the potable water distribution system. In total, MWSD has seven treated water storage tanks with a combined capacity of about 1.4 million gallons for operational, emergency, and firefighting uses.

The potable water distribution system must sustain a minimum working pressure of 40 pounds per square inch during peak hourly demand conditions and 20 pounds per square inch during fire flow conditions. The 2017 Water System Master Plan Update (2017 Master Plan) analyzed the water distribution system's ability to deliver water under maximum daily demand flow conditions and the addition of new connections, supply sources, system improvements, and/or storage facilities.³⁶² The existing distribution system demonstrated adequate performance and capacity to accommodate maximum daily demand flow. However, the system-wide fire flow analysis identified multiple improvements to alleviate deficiencies, including replacement of "critically stressed" pipelines. The proposed improvements are categorized as Priority Level 1 and Priority Level 2, based on the MWSD capital improvement plan prioritization criteria. Priority Level 1 projects address the system deficiencies related to adding new customers to the system, as most of the identified system deficiencies are due to increased demand resulting from adding new connections to the system. Priority Level 1 improvements for new customers include: 1) Water Main Upgrades Program, 2) Existing Well Upgrade Program, 3) New and Upgraded Pressure Reducing Valve Stations Program, 4) Emergency Generator Upgrades Program, 5) Schoolhouse Booster Pump Station

³⁵⁷ MWSD, 2017.

³⁵⁸ MWSD, 2017.

³⁵⁹ MWSD, 2017.

³⁶⁰ MWSD, 2017.

³⁶¹ MWSD, 2023.

³⁶² MWSD, 2017.

Upgrade, 6) Portola Tank Telemetry Upgrade, 7) Develop Additional Supply Reliability, and 8) Big Wave North Project Alternative Main Extension Project.³⁶³ Priority Level 2 projects serve existing MWSD customers and include the required improvements to address system renewal and replacement needs and ensure sufficient response under daily operational scenarios, fire flow, and emergency conditions.

The project site currently contains a 10-foot-wide MWSD easement with water lines, including an 8-inch water line extending from both Sierra Street and Buena Vista Street through the project site to the fenced MWSD facilities. A 10-inch water line extends from Carlos Street to MWSD facilities. The two existing water tanks owned by the MWSD are not part of the proposed development.

3.11.1.1.3 WATER SUPPLY PLANNING

Based on MWSD customer billing records, the average annual consumption of potable water is approximately 99.1 million gallons, and the average daily consumption is approximately 271,501 gpd. On average, MWSD water sources produced an annual average of 296,018 gpd over the past 13 years, with minimum of 260,983 gpd in 2014 and maximum 359,023 gpd in 2004, respectively. MWSD's source production is dependent upon customer consumption, as the sources only produce water in response to customer demands.³⁶⁴

As of December 11, 2013, the MWSD had 128,000 gpd available to be used for new service connections and was permitted to serve new connections. Available water supply may be used to serve existing development that is within the LCP urban area that is currently served by private wells, or to provide new service connections to development that has been authorized pursuant to the County's LCP, including the LCP's growth limitation for the MWSD service area, which is currently 1% per year. The overall water supply capacity needed for the MWSD to serve 1,000 new residential connections is 483,458 gpd (annual average) and 773,533 gpd (maximum daily demand).³⁶⁵ The water system can support the demands of the projected population with a slight deficit appearing after 1,000 new connections are added to the system.

MWSD prepared and adopted a 2017 Master Plan to support the long-term resource planning of water supply and water system facilities for the current and future demands of the MWSD and to create a foundation for MWSD's Capital Improvements Program. Future demands on the MWSD water system were estimated for various numbers of additional connections. Future demand estimates are based on the following assumptions:

- People that currently reside or own property in the service area but are not yet connected to MWSD will connect to the water system, and
- The MWSD will serve new homes being built in the service area in accordance with the 2013 *County of San Mateo Local Coastal Program (LCP) Update*.³⁶⁶

MWSD has established storage goals for current demands and for expected future growth. The total storage goal is a target value that the MWSD has set for the operation of its system and is not a mandated requirement. To date, MWSD complies with regulations related to water storage requirements and has sufficient storage to serve both existing customers and up to 1,000 new water service connections.³⁶⁷

³⁶³ MWSD, 2017.

³⁶⁴ MWSD, 2017.

³⁶⁵ County of San Mateo. 2013. *Local Coastal Program*. Table 2.9 Updated Water Consumption Estimate (2006). Available at: <https://www.smcgov.org/planning/local-coastal-program>. Accessed June 22, 2023.

³⁶⁶ MWSD, 2017.

³⁶⁷ MWSD, 2017.

3.11.1.2 Wastewater

SAM provides municipal wastewater treatment for its member agencies (i.e., Granada Sanitary District, the City of Half Moon Bay, and the MWSD). These member agencies serve approximately 27,000 coastal residents in San Mateo County. Each member agency owns, operates, and maintains a sanitary sewer system; MWSD owns and maintains the sanitary sewer system for Montara and Moss Beach.

The wastewater systems of these member agencies connect to the pump stations, force mains, and interceptor pipelines owned by SAM. The SAM system includes a regional wastewater treatment plant (WWTP), an 8-mile transmission intertie pipeline system line, approximately 1.8 miles of gravity sewer pipe, and 5.7 miles of force main pipeline, as well as three pumping stations.³⁶⁸

The regional WWTP is an activated sludge secondary treatment facility that was constructed on a site within the City of Half Moon Bay. The WWTP and its discharge pipe extend approximately 1,900 feet from the shore into the Pacific Ocean.³⁶⁹ In 2018, the average daily flow was 1.64 million gallons per day (MGD). The WWTP capacity was expanded in 1999 to flows presented in Table 3.11-1.

Table 3.11-1. SAM WWTP Influent Flows

Parameter	Flow (MGD)
Average Daily Dry Weather	4
Peak Day Wet Weather	9
Peak Hourly Wet Weather	15

Source: California San Francisco Regional Water Quality Control Board³⁷⁰

As one of the member agencies of SAM, the MWSD serves approximately 1,940 wastewater connections. The MWSD maintains sanitary sewer facilities, including approximately 25 miles of sewer line, 13 major sewer pump stations, and 41 pump stations with 54 installed pumps.³⁷¹ Due to the hilly terrain, some pump stations have more than one pump to provide backup. All Montara wastewater is pumped by SAM’s northern pump station, often referred to as the Montara Pump Station, to the WWTP. The average daily flow for MWSD was 0.373 MGD in January 2018.³⁷²

Since May 2, 2007, SAM has reported 20 sanitary sewer overflows (SSOs) from its collection system, with 85% caused by a pipe structural problem or failure.³⁷³ Only one SSO that occurred in January 2008 was caused by rain exceeding the collection system design capacity. Since May 2017, SAM has not had a Category 1 SSO, which is the discharge of untreated wastewater from a sanitary sewer system failure or flow condition that reaches surface water. Nevertheless, increasing the capacity of the

³⁶⁸ SAM. 2022. Sewer Authority Mid-Coastside. Available at: <https://samcleanswater.org/>. Accessed June 20, 2023.

³⁶⁹ SAM, 2021. *Request For Proposals Wastewater Treatment Plant Capacity And Treatment Process Review Study*. https://samcleanswater.org/vertical/sites/%7B1307B359-C05A-436D-AC1C-9EB8D6FFB4A3%7D/uploads/RFP_for_SAM_WWTP_Review_Study_Final_Feb_9.pdf. Accessed June 20, 2023.

³⁷⁰ California San Francisco Regional Water Quality Control Board, 2017. *Staff Summary Report – Reissuance of NPDES Permit*. Available online at: https://samcleanswater.org/vertical/sites/%7B1307B359-C05A-436D-AC1C-9EB8D6FFB4A3%7D/uploads/NPDES_Permit_Tentative_2017.pdf. Accessed June 21, 2023.

³⁷¹ MWSD, 2023.

³⁷² MWSD, 2018.

³⁷³ California RWQCB, 2018a. “Prosecution Staff Response To Comments.” Available online at: https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2018/August/SAMC/Proseccion_staff_RTC_SAM_Stipulated_Order.pdf. Accessed June 21, 2023.

underground storage tank system may help SAM manage any possible increases in wastewater flows associated with future inflow and infiltration from its member agency collection systems.³⁷⁴

The 2017 Master Plan identified several needed improvements to alleviate deficiencies within the Upper Moss Beach area. These improvements include replacement of the 2-inch pressure-regulating valve station and the adjacent 2-inch piping along Buena Vista Street, upsizing 750 feet of pipeline located along California Avenue and Pearl Street to a 6-inch diameter pipeline, and system-wide replacement of 8,395 feet of 1.5-inch, 2-inch, 2.5-inch, 3-inch, and 4-inch diameter pipelines with 6-inch diameter pipeline.³⁷⁵ None of these improvements are resulting from or occurring on the project site.

3.11.1.3 Solid Waste

MWSD has contracted with Recology for trash pickup, recycling, and waste hauling in the Montara and Moss Beach areas. To meet the State-mandated 50% landfill diversion requirements stipulated under Assembly Bill (AB) 939, residential recyclable waste and green waste are collected every week. Solid waste in the Moss Beach area is collected and transferred to Ox Mountain Sanitary Landfill (OMSL) in Half Moon Bay. The San Mateo County Environmental Health Division issued the current solid waste facilities permit for the OMSL in June 2001. OMSL is a Class III municipal solid waste landfill, which accepts all types of solid waste but is prohibited from accepting hazardous, radioactive, or medical waste. The OMSL has a maximum daily tonnage of 3,596 tons per day, a permitted capacity of 60,500,000 cubic yards, and a remaining capacity of approximately 22,000,000 cubic yards as of December 31, 2016. The estimated facility closure date is 2034.³⁷⁶

3.11.1.4 Electricity

Peninsula Clean Energy (PCE) PCE is the default electric generation provider for San Mateo County and all 20 of its cities and towns and for any new or relocated customers. PCE provides electricity to residents and businesses in San Mateo County, while Pacific Gas and Electric Company (PG&E) continues to maintain the electrical wires and other infrastructure, and PG&E meters customers' electricity usage and sends customers' bills. PCE goals include obtaining 100 percent greenhouse gas-free electricity by 2021, 100 percent California Renewable Portfolio Standard-eligible renewable energy by 2025, and a minimum of 20 megawatts of new local power by 2025.³⁷⁷

There is a 10-foot-wide easement for PG&E facilities under the unpaved road on the southwestern portion of the project site. The easement runs northeast-southwest diagonally along the southwest corner of the MWSD tanks and continues east along a proposed access loop. The project site contains some existing electrical infrastructure but no natural gas infrastructure.

³⁷⁴ California RWQCB, 2018a.

³⁷⁵ MWSD, 2017.

³⁷⁶ California RWQCB, 2018b. Application for Solid Waste Facility Permit and Waste Discharge Requirements. July 11, 2018.

³⁷⁷ Peninsula Clean Energy, 2023. "Background." Available online at: <https://www.peninsulacleanenergy.com/background/>. Accessed June 26, 2023.

3.11.2 Regulatory Setting

3.11.2.1 Federal

3.11.2.1.1 FEDERAL CLEAN WATER ACT, 33 U.S.C. 1251 ET SEQ. (1977)

The Clean Water Act (CWA) (33 United States Code [U.S.C.] 1251 et seq.), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality. The objective of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” Numerous agencies have responsibilities for administration and enforcement of the CWA. At the federal level this includes the U.S. Environmental Protection Agency (EPA), the U.S. Army Corps of Engineers (USACE), the Bureau of Reclamation, and the major federal land management agencies such as the U.S. Forest Service and the Bureau of Land Management. At the state level, the primary responsibility for administering and enforcing the CWA has been delegated to Tribal lands and the California Environmental Protection Agency and its sub-agencies, including the State Water Resources Control Board (SWRCB).

Important sections of the act are as follows:

- **CWA Sections 303 and 304** provide the water quality standards, criteria, and guidelines. Under Section 303(d) of the CWA, the State of California is required to present the EPA with a list of impaired water bodies that do not meet water quality standards and objectives. California is required to establish a total maximum daily load (TMDL) for each pollutant/stressor. An essential component of a TMDL is the calculation of the maximum amount of a pollutant that a waterbody can receive while still meeting water quality standards. Based on the TMDL, the state allocates a loading capacity among the various point and nonpoint sources that discharge into the impaired waterbody. Permits for point sources are issued through the EPA’s National Pollutant Discharge Elimination System (NPDES) program, as discussed below. The Pacific Ocean at Half Moon Bay is not on the CWA Section 303(d) list as an impaired water body. However, the Pacific Ocean at Venice Beach, approximately 1,000 feet north of the outfall, is listed under Section 303(d) as impaired by coliform bacteria.³⁷⁸
- **CWA Section 401 (Water Quality Certification)** requires an applicant for any federal permit that proposes an activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the CWA. The project site does not contain any aquatic resources which are anticipated to meet the criteria of waters of the state regulated under the Porter-Cologne Water Quality Control Act and/or Section 401 of the CWA.
- **CWA Section 402** establishes the NPDES program, a permitting system for the discharge of pollutants through a point source into waters of the U.S. Whereas the federal NPDES program mostly pertains to point source control, the current focus and regulation are shifting to nonpoint source pollution control under the authority of the Regional Water Quality Control Boards (RWQCBs). The NPDES program regulates the discharge of pollutants from municipal and industrial WWTPs and sewer collection systems, as well as stormwater discharges from industrial facilities, municipalities, and construction sites. In California, implementation and enforcement of the NPDES program are conducted through the SWRCB and the nine RWQCBs. The RWQCBs set standard conditions for each permittee in their region, which includes effluent limitations and monitoring programs. The proposed project would be subject to NPDES permits as described under the State regulatory framework, below.

³⁷⁸ California San Francisco Regional Water Quality Control Board, 2017.

- **CWA Section 404** establishes a permit program for the discharge of dredged or fill material into waters of the U.S. This permit program is jointly administered by the USACE and the EPA.

3.11.2.1.2 SAFE DRINKING WATER ACT

The purpose of the Safe Drinking Water Act (SDWA) is to protect public health by regulating the nation's public drinking water supply. The SDWA authorizes the EPA to set national health-based standards for drinking water to protect against both naturally occurring and human-made contaminants that may be found in drinking water. Potential contaminants include improperly disposed of chemicals, animal wastes, pesticides, human threats, waste that has been injected underground, and naturally occurring substances. In addition, water that is not properly treated may pose a threat to drinking water. The SDWA applies to all public water systems across the nation. The EPA, individual states, and water systems work in coordination to ensure that these standards are met. The EPA identifies potential contaminants, determines an allowable maximum contaminant level, and enforces the set standards.

3.11.2.2 State

3.11.2.2.1 CALIFORNIA OCEAN PLAN

The State Water Board adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (Ocean Plan) in 1972 and has amended it several times, most recently in 2015. The most recent changes became effective on January 27, 2016. The Ocean Plan applies, in its entirety, to point source discharges to the Pacific Ocean. The Ocean Plan establishes water quality objectives and a program of implementation to protect beneficial uses.

The Ocean Plan establishes minimum protective bacteriological standards for coastal waters adjacent to public beaches and water contact recreation areas in ocean waters. Bacteriological effluent limits are necessary to meet Ocean Plan standards because of the nature of the discharge. Enterococcus limits were chosen because they are a better bacteriological indicator for human health risks from recreational uses in salt water than fecal or total coliform limits. Total coliform water quality-based effluent limitations are unnecessary to protect shellfish harvesting because there are no commercial shellfish beds or evidence of shellfish harvesting for human consumption within the vicinity of the discharge.

3.11.2.2.2 SUBDIVISION MAP ACT

The Subdivision Map Act (California Government Code Title 7, Division 2) describes general provisions, procedures, and requirements for the division of land, including the provision of public services and roadway and utilities improvements.

3.11.2.2.3 SUSTAINABLE GROUNDWATER MANAGEMENT ACT

The Sustainable Groundwater Management Act (SGMA) is a package of three bills (AB 1739, Senate Bill [SB] 1168, and SB 1319) that provides local agencies with a framework for managing groundwater basins in a sustainable manner. The SGMA establishes standards for sustainable groundwater management, roles, and responsibilities for local agencies that manage groundwater resources, and priorities and timelines to achieve sustainable groundwater management. Central to the SGMA are the identification of critically over-drafted basins and the prioritization of groundwater basins, establishment of groundwater sustainability agencies, and preparation and implementation of Groundwater Sustainability Plans (GSPs) for medium-priority, high-priority, and critically over-drafted basins. GSP objectives require that future groundwater use does not cause undesirable results, which include the following: declining water levels, reduction of groundwater storage, seawater intrusion, degraded water quality, land subsidence, and depletion of interconnected surface water. One requirement of a GSP is to establish

a monitoring network to track water level changes and groundwater storage, and to monitor pre-determined water level thresholds within each basin. Water level data for these basins will be available to the public through online portals. A basin may be managed by a single GSP or multiple, coordinated GSPs.

At the state level, the California Department of Water Resources has the primary role in the implementation, administration, and oversight of the SGMA, with the SWRCB stepping in should a local agency be found to not be managing groundwater in a sustainable manner.

The Half Moon Bay Terrace Groundwater Basin is currently designated as a very low-priority basin and is not subject to the SGMA, required to form a Groundwater Sustainability Agency, or implement a GSP.³⁷⁹

3.11.2.2.4 URBAN WATER MANAGEMENT PLANNING ACT

The Urban Water Management Planning Act of 1983 (California Water Code Sections 10610 et seq.) requires that every supplier providing water for municipal purposes to more than 3,000 customers or suppliers supplying more than 3,000 acre-feet of water annually must prepare an urban water management plan (UWMP) every 5 years. The UWMP shall include a description of the service area, existing and planned sources of water available to the supplier, how much water the agency has on a reliable basis, how much it needs for the foreseeable future, what the agency's strategy is for meeting its water needs, the challenges facing the agency, and any other information necessary to provide a general understanding of the agency's plan. In addition, every urban water supplier shall prepare and adopt a water shortage contingency plan as part of its UWMP that includes, but is not limited to, an analysis of water supply reliability over a 20-year planning timeframe, the procedures used to conduct an annual water supply and demand assessment, the defined standard water shortage levels corresponding to progressive ranges of up to 50% shortages and greater than 50% shortages, and the shortage response actions that align with the defined shortage levels.

3.11.2.2.5 CALIFORNIA SENATE BILL 610

SB 610 requires an additional assessment of whether available water supplies are sufficient to serve the demand generated by a proposed project, as well as the reasonably foreseeable cumulative demand in the region over the next 20 years under an average normal year, single dry year, and multiple dry year conditions.

3.11.2.2.6 CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT

The California Integrated Waste Management Act of 1989 (AB 939) was originally enacted to require cities and counties in the State of California to divert 25% of their waste streams by the year 1995 and 50% by the year 2000. Later legislation mandates the 50% diversion requirement must be achieved each year. Specifically, AB 939 requires counties and cities to adopt a Source Reduction and Recycling Element of their Waste Management Plans to describe actions to be implemented to achieve waste reduction goals (Public Resources Code [PRC] Section 41750). The California Department of Resources Recycling and Recovery (CalRecycle) oversees and assists local governments as they develop and implement plans to meet the mandates of AB 939 and subsequent legislation.

³⁷⁹ County of San Mateo Office of Sustainability. 2023. Groundwater. Available at: <https://www.smcsustainability.org/water/groundwater/>. Accessed June 22, 2023.

3.11.2.2.7 CALIFORNIA SOLID WASTE REUSE AND RECYCLING ACCESS ACT

The California Solid Waste Reuse and Recycling Access Act of 1991 (AB 1327) requires each local jurisdiction to adopt an ordinance requiring commercial, industrial, institutional building, marina, and/or residential buildings having five or more living units to provide an adequate storage area for the collection and removal of recyclable materials. The sizes of these storage areas are to be determined by the appropriate jurisdictions' ordinances. If no such ordinance exists within the jurisdiction, the CalRecycle model ordinance shall take effect.

3.11.2.2.8 MANDATORY COMMERCIAL RECYCLING PROGRAM

The Mandatory Commercial Recycling Program (AB 341) authorizes CalRecycle to develop and adopt regulations for mandatory commercial recycling. AB 341 requires all commercial businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. In addition, all multi-family homes with more than five units are also required to have a recycling program in place.

3.11.2.2.9 CALIFORNIA SENATE BILL 1374

SB 1374 was implemented to assist jurisdictions with diverting construction and demolition waste material. Per SB 1374, PRC Section 41821 requires public agencies to include a summary of the progress made in diverting construction and demolition waste according to diversion goals included in AB 939. Per SB 1374, PRC Section 41850 authorizes CalRecycle to fine jurisdictions that do not meet the required goals. Additionally, per SB 1734, PRC Section 42912 requires that CalRecycle adopt a model ordinance for diverting 50% to 75% of all construction and demolition waste from landfills.

3.11.2.3 *Local*

3.11.2.3.1 GENERAL PLAN

The Water Supply Policies³⁸⁰ establish goals, policies, and implementation measures for the conservation and protection of important natural resources such as water supply.

- **Goal 10.1 Coordinate Planning:** Coordinate water supply planning with land use and wastewater management planning to assure that the supply and quality of water is commensurate with the level of development planned for an area.
- **Goal 10.2 Safeguarding Water Supplies:** Seek to safeguard the productive capacity of groundwater aquifers and storage reservoirs.
- **Goal 10.3 Water Conservation:** Promote the conservation and efficient use of water supplies.
- **Goal 10.4 Development of Water Supplies:** Promote the development of water supplies to serve: 1) agricultural uses, as the highest priority; 2) domestic uses; and 3) recreational uses.
- **Policy 10.8 Water Systems for Coastal Areas:** Support efforts to provide adequate water systems for the Mid-Coast, rural service centers, and other unincorporated urban areas.
- **Policy 10.12 Coordination of Water Suppliers:** Encourage water providers to coordinate the planned capacity of their facilities commensurate with the level of development permitted by adopted land use plans and wastewater management plans.

³⁸⁰ County of San Mateo. 1986. General Plan. Available at: <https://www.smcgov.org/planning/general-plan>. Accessed June 2023.

- **Policy 10.13 Water Systems in Unincorporated Areas:** Support efforts to improve water distribution and storage systems in unincorporated neighborhoods and communities.
- **Policy 10.16 New Water Systems:** Allow the creation of new water systems in Rural Service Centers and Rural Subdivision areas only when demonstration is made of at least the following: 1) connections to existing systems are not available; 2) the new water system will use, as a source of supply, wells or springs; and 3) adequate financing for the new water system is available.
- **Policy 10.25 Efficient Water Use:**
 - a) Encourage the efficient use of water supplies through effective conservation methods.
 - b) Require the use of water conservation devices in new structural development.
 - c) Encourage exterior water conservation.
 - d) Encourage water conservation for agricultural uses by using efficient irrigation practices.
- **Policy 10.26 Wastewater Reuse:**
 - a) Encourage the reuse and recycling of water whenever feasible.
 - b) Encourage the use of treated wastewater that meets applicable County and State health agency criteria.
 - c) Support small-scale and on-site water recycling technologies, which meet public health and safety standards, for landscaping and agricultural purposes.

The Wastewater Policies³⁸¹ establish goals, policies, and implementation measures for the conservation and protection of important natural resources such as water supply.

- **Goal 11.1 Adequate Wastewater Management:** Plan for the provision of adequate wastewater management facilities to serve development to protect public health, wildlife habitats, and water quality.
- **Goal 11.2 Coordinate Planning:** Coordinate wastewater management planning with land use and water supply planning to assure that the capacity of sewerage facilities is commensurate with the level of development planned for an area.
- **Policy 11.4 Adequate Capacity for Unincorporated Areas:** Plan for the availability of adequate sewerage collection and treatment capacity for unincorporated urban areas.
- **Policy 11.5 Wastewater Management in Urban Areas:**
 - Consider sewerage systems as the appropriate method of wastewater management in urban areas.
 - Encourage the extension of sewerage systems to serve unincorporated urban areas presently using individual sewage disposal systems where warranted by public health concerns, environmental pollution, or the planned density of development.
 - Continue the use of existing individual sewage disposal systems in urban areas where lot sizes, site conditions, and planned densities are appropriate for these systems and where individual sewage disposal systems have functioned satisfactorily in the past.
- **Policy 11.7 Phasing Sewerage Improvements:** Phase the development of wastewater facility improvements in areas with substantial growth potential so that sufficient capacity becomes available when needed by new growth in accordance with adopted land-use plans.

³⁸¹ County of San Mateo, 1986. *General Plan*. Available online at: <https://www.smcgov.org/planning/general-plan>. Accessed June 2023.

- **Policy 11.9 Sewerage Capacity for Priority Land Uses:**
 - Provide for the reservation of sewerage capacity for priority land uses where required by State law or local policy.
 - Encourage sewerage districts, which are required to reserve capacity for priority land uses, to establish an equitable method of payment for such capacity.

3.11.2.3.2 CITY/COUNTY ASSOCIATION OF GOVERNMENTS, SAN MATEO COUNTYWIDE SUSTAINABLE STREETS MASTER PLAN

The City/County Association of Governments finalized the San Mateo Countywide Sustainable Streets Master Plan using grant funds from the California Department of Transportation.³⁸² The plan aims to identify and prioritize street improvements for adding green infrastructure to provide water quality, flood reduction, and community benefits throughout San Mateo County in the context of climate change. The goals of the project include identifying how climate change would affect future rainfall, planning to sustainably capture and clean runoff in San Mateo County roadways, and using nature-based solutions, while providing safer and more resilient streets for all users including motorists, bicyclists, and pedestrians. The plan is anticipated to include high-resolution drainage mapping, project concepts to aid in pursuing implementation, and a tracking tool to view progress over time.

3.11.2.3.3 LOCAL COASTAL PROGRAM

The LCP is the County's guiding document for implementation of the State Coastal Act administered by the California Coastal Commission. With information and policies pertaining to issues such as buildout and development, water supply capacity, wastewater treatment capacity, recreation, impervious surface zoning standards, nonpoint surface runoff controls, and sensitive species and habitat protection, the LCP governs land development in the unincorporated coastal area of San Mateo County. All development in the coastal zone must either comply with the policies and ordinances of the LCP in order to be issued a Coastal Development Permit (CDP) or be granted an exemption from the requirements. The County of San Mateo Planning and Building Department (Planning Department) released an updated LCP on June 18, 2013.

According to the San Mateo County LCP, new public water connections in the MWSD's service area are allowed only if they are consistent with the MWSD Public Works Plan (PWP) and amendments in effect, Chapter 2 of the LCP, and all other applicable policies of the LCP as amended. The following policies of the LCP apply to the proposed project:

- **2.1 Development Review of Public Works:** After certification of the LCP, require a Coastal Development Permit from any public utility, government agency or special district wishing to undertake any development in the Coastal Zone, with the exceptions of State Universities and colleges and development on public trust lands or tidelands as described in Section 30519(b) of the California Coastal Act.
- **2.6 Capacity Limit:** Limit development or expansion of public works facilities to a capacity which does not exceed that needed to serve buildout of the Local Coastal Program.
- **2.8 Reservation of Capacity for Priority Land Uses**
 - For each public works development to serve vacant lands with new connections, reserve capacity adequate to allow priority land uses to develop in conjunction with the non-priority development that would be facilitated by the public works development.

³⁸² City/County Association of Governments. 2021. Sustainable Streets Master Plan. Available at: <https://www.flowstobay.org/data-resources/plans/sustainable-streets-master-plan/>. Accessed May 2023.

- Where development of new public works facilities can accommodate only a limited amount of new connections on vacant land, the service provider shall ensure that adequate capacity is reserved for Coastal Act priority uses before reserving capacity for Local Coastal Program priority uses shown on Tables 2.7 and 2.17 (recreated herein as Table 3.11-2 and Table 3.11-3).
- 2.14 New and Expanded Sewage Treatment and Distribution Capacity
 - Allow new or expanded sewage treatment and distribution capacity to serve new development only when existing capacity has been consumed or will be consumed within the time period required to construct additional sewage treatment capacity, and only when capacity increases would not overburden the existing and probable future capacity of other public works facilities.
 - Projects to increase sewage collection, transmission, and storage capacity, in order to prevent wet weather overflows only, are permitted notwithstanding traffic conditions on Highways 1 and 92 provided that the projects do not: (1) induce growth; or (2) increase the treatment capacity of the Sewer Authority Mid-Coastside (SAM) plant or the total number of sewer connections made available by the SAM treatment plant expansion permitted by Coastal Commission CDP No. 1-94-111.
 - Projects to upgrade the SAM treatment plant from secondary to tertiary treatment to produce recycled water are permitted notwithstanding traffic conditions on Highways 1 and 92 provided that the recycled water project does not:
 - induce growth inconsistent with the LCP;
 - provide potable water connections to new non-priority development; or
 - increase the total number of non-priority connections made available by either the El Granada Pipeline Project (Coastal Commission CDP A-2-SMC-99-063; A-1-HMB-99-020) or the Montara Water and Sanitary District (MWSD) Public Works Plan (Coastal Commission PWP No. 2-06-006). Recycled water projects that would provide new potable water connections to new commercial, residential, or industrial development are subject to subsection (a), Policy 2.22, and all other applicable policies of the LCP.
 - Sewage treatment, collection, storage, and transmission projects shall be consistent with the following standards:
 - Maximum Capacity. The maximum service capacity of the project shall not induce growth inconsistent with the protection of coastal resources and public access and recreation opportunities, and will assure that untreated wastewater will not be discharged into any coastal waters including streams, wetlands and the marine environment.
 - Priority Uses. The project shall demonstrate that sewage treatment, collection, and transmission capacity is available and allocations are for Coastal Act priority uses.
 - Siting. The project shall be sited and designed to minimize impacts to visual resources, prevent degradation of sensitive habitats, and shall be consistent with all applicable policies of the LCP.
 - The project shall minimize the use of energy.
- 2.16 Reservation of Capacity for Priority Land Uses
 - Reserve sewage treatment capacity for each land use given priority by the Coastal Act or the Local Coastal Program. These priority uses are shown on Table 2.7. (Table 3.11-2)
 - Amend this table to reflect all changes in the Land Use Plan which affect these priority land uses.

- Where existing or planned sewage treatment facilities can accommodate only a limited amount of new development, services to Coastal Act priority uses listed on Table 2.7 (Table 3.11-2) shall have priority over Local Coastal Program priority uses listed on Table 2.7. (Table 3.11-2)

Table 3.11-2. Sewage Treatment Capacity to be Reserved for Priority Land Uses

Allocation of Reserved Capacity to Priority Land Uses	Phase I		Buildout	
	Units	Gallons/Day	Units	Gallons/Day
<u>Coastal Act Priorities</u>				
Marine-Related Industrial	—	—	—	—
Commercial Recreation	0.56 acre	840	0.82 acre	1,230
Public Recreation	282 persons	2,820	408 persons	4,080
<u>Local Coastal Program Priorities</u>				
Specific Developments on Designated Sites Containing Affordable Housing	148	32,708	365	66,430 to 94,900
North Moss Beach Site (11 acres)				
South Moss Beach Site (12.5 acres)				
Total Sewage Treatment Capacity for Priority Land Uses		36,368		71,740 to 100,210
Percent of Total Sewage Treatment Capacity for Priority Land Uses		9.1%		9.0 to 17.3%
Percent of Buildout Allowed by Phase		50 to 69%		100%
Total Sewage Capacity		400,000		580,090 to 794,080

Source: San Mateo County Local Coastal Plan 2013. Table 2.7³⁸³

Table 3.11-3. Amount of Water Capacity to be Reserved for Priority Land Uses

Allocation of Reserved Capacity to Priority Land Uses	Phase I		Buildout	
	Units	Gallons/Day	Units	Gallons/Day
<u>Coastal Act Priorities</u>				
Marine-Related Industrial	—	—	—	—
Commercial Recreation	0.57 acre	1,100	0.82 acre	1,230
Public Recreation	282 persons	3,200	408 persons	4,080
Floriculture		13,800		10,000
Essential Public Services				5,000
<u>Local Coastal Program Priorities</u>				
Specific Developments on Designated Sites Containing	148	64,380	148	35,816 to 51,504
Affordable Housing				
(1) North Moss Beach Site (11 acres)				
Other Affordable Housing			20	5,000
Total Water Capacity for Priority Land Uses		82,480		61,126 to 76,814

³⁸³ San Mateo County. 2013. Local Coastal Program Policies Table 2.7. Available at: <https://www.smcgov.org/planning/local-coastal-program>. Accessed June 25, 2023.

Allocation of Reserved Capacity to Priority Land Uses	Phase I		Buildout	
	Units	Gallons/Day	Units	Gallons/Day
Percent of Total Water Capacity for Priority Land Uses		10.6%		5.4 to 9.2%
Percent of Buildout Allowed by Phase		50 to 69%		100%
Total Water Capacity		778,800		836,300 to 1,128,700
<u>Coastal Act Priorities</u>				
Marine-Related Industrial	22.85 acres	55,770	29.29 acres	71,870
Commercial Recreation	33.15 acres	61,630	42.50 acres	79,395
Public Recreation	248 persons	2,900	318 persons	3,700
Floriculture		179,400		220,000
Essential Public Services		7,700		14,135
<u>Local Coastal Program Priorities</u>				
Specific Developments on Designated Sites Containing Affordable Housing	104	39,936	322	77,924 to 112,056
(1) North El Granada Site (6 acres)				
(2) South Moss Beach Site (12.5 acres)				
Other Affordable Housing			20	5,000
Consolidated Lots in Miramar	55	20,900	70	16,900 to 24,400
Historic Structures	1	1,480	1	1,480
(1) Johnston House				
Total Water Capacity for Priority Land Uses		369,716		490,404 to 532,036

Source: San Mateo County Local Coastal Plan 2013. Table 2.17³⁸⁴

3.11.2.3.4 SAN MATEO COUNTY MUNICIPAL CODE CHAPTER 4.105, RECYCLING AND DIVERSION OF CONSTRUCTION AND DEMOLITION DEBRIS

Under the California Waste Management Act (California PRC Sections 40000 et seq.), each county is required to prepare, adopt, and implement a source reduction and recycling element to reach reduction goals, and is required to make substantial reductions in the volume of waste materials going to landfills. Debris from construction and demolition of buildings represents a significant portion of the volume of solid waste currently coming from the unincorporated area of the County, and much of this debris is particularly suitable for recycling. Under Chapter 4.105 of the County Municipal Code, construction projects in unincorporated San Mateo County must divert 100% of inert construction and demolition materials and at least 50% of remaining construction and demolition debris tonnage from landfills for recycling or reuse. Every contractor must submit a Waste Management Plan, which indicates the intended salvage, reuse, and recycling facilities, chosen from a list of facilities approved by the County, for all construction and/or demolition debris from the project.

³⁸⁴ San Mateo County. 2013. Local Coastal Program Policies Table 2.17. Available at: <https://www.smcgov.org/planning/local-coastal-program>. Accessed June 25, 2023.

3.11.3 Thresholds of Significance

The determinations of significance of project impacts are based on applicable policies, regulations, goals, and guidelines defined by the California Environmental Quality Act (CEQA) and the County. Specifically, the project would be considered to have a significant effect on utilities and service systems if the effects exceed the significance criteria described below:

1. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
2. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal years, single dry years, and multiple dry years.
3. 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.
4. 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.
5. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Each of these thresholds is discussed under Section 3.11.5, Impacts and Mitigation Measures, below.

3.11.4 Impact Assessment and Methodology

In order to evaluate utilities and service systems, an analysis of impacts to wastewater treatment requirements, water supply, wastewater treatment regulatory compliance, and solid waste regulatory compliance were evaluated according to the above-mentioned thresholds of significance.

3.11.5 Impacts and Mitigation Measures

Impact UT-1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? (Less Than Significant)

Water

The MWSD issues connections in conjunction with the Planning Department for new and existing projects inside the urban zones. The proposed project would connect to and be served by the existing MWSD public water system. The project would extend water lines to new project facilities on the project site for potable water and fire water supply, as well as irrigation of landscaping. The proposed water line would extend from the existing MWSD tanks along the existing 10-foot right-of-way along the eastern and northern portions of the project. New domestic water and fire water lines would be in the driveway loop and parking areas, with individual connections to each building. The fire water would connect to a flow meter in the northeast corner of the driveway loop. The project would also have water tanks

capable of supplying a flow of 100 gpm for 2 hours, as required by the California Fire Code, Section 507³⁸⁵ and in compliance with the County General Plan.³⁸⁶

Construction of replacement water pipelines would be routed to provide setbacks between new facilities and existing water pipelines, and to avoid other existing utilities. All improvements related to the project would be within or adjacent to the existing water transmission system alignments, or at existing wells and pump stations. Pipeline construction would be engineered and implemented to minimize service disruptions to existing customers.

Excavation for the proposed water pipelines would include ground disturbance and exposure of surfaces, increasing the potential for erosion and downstream sedimentation. Vegetation would need to be cleared or mowed to provide access for construction vehicles, increasing the potential for erosion. Eroded materials transported in stormwater have the potential to affect receiving surface waters through impairment of beneficial uses and exceedance of water quality objectives. As discussed in Section 3.7, Hydrology and Water Quality, implementation of the erosion and sediment control plan, and the stormwater pollution prevention plan would manage stormwater and reduce erosion and runoff from the project site. Therefore, the project would result in the construction of new water infrastructure on-site but would not result in significant environmental effects. Impacts would be less than significant.

Wastewater

There is no existing sanitary sewer infrastructure on the project site. The project would install new wastewater pipelines that connect the project site to the existing MWSD sewer lines in Carlos Street. These new wastewater pipelines would be in the driveway loop and parking areas, with individual connections to each building. Construction of wastewater improvements would be routed to provide setbacks between new facilities and existing water and wastewater pipelines, and to avoid other existing utilities.

The proposed wastewater connections and improvements would comply with Chapter 4.24 – Sewer Connections of the San Mateo County Ordinance Code and Sanitary Sewer Standard Details and Specifications, in addition to the MWSD Code.³⁸⁷ Therefore, the project would result in the construction of new wastewater infrastructure on-site but would not result in significant environmental effects. Impacts would be less than significant.

Stormwater

Section 3.7, Hydrology and Water Quality, provides a detailed description of stormwater drainage on the project site during construction and operation. Best management practices required for NPDES compliance would be applied during project construction to ensure that runoff from the project site would not impact the capacity of stormwater infrastructure. During project operation, stormwater would be directed to treatment areas and would not impact the capacity of stormwater infrastructure. Therefore, the project would have less than significant impacts to stormwater infrastructure.

³⁸⁵ SWCA. 2023. *Wildfire and Evacuation Route Assessment for the Cypress Point Affordable Housing Community Project*. SWCA Environmental Consultants. (Included in Appendix N)

³⁸⁶ San Mateo County. 2021. County of San Mateo General Plan: Updated January 2013. Chapter revisions 2021. Available at: <https://www.smcgov.org/planning/general-plan-policies>. Accessed March 2023.

³⁸⁷ Montara Water and Sanitary District Code. Amended 2017. Available online at: [https://mwsd.montara.org/assets/uploads/documents/MWSDCode\[current020817AmndThruOrd184\]020817.pdf](https://mwsd.montara.org/assets/uploads/documents/MWSDCode[current020817AmndThruOrd184]020817.pdf). Accessed June 20, 2023.

Electricity

The proposed single-family project would receive electric services from PCE and PG&E. Extension of electric services to the 71 residential units would not require development of new generation or transmission facilities. Natural gas would not be used during project operation. This impact would be less than significant.

Impact UT-2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years? (Less Than Significant)

Within the MWSD, the average residential water consumption is approximately 66 gpd per person.³⁸⁸ Peak day consumption is generally 1.8 times the annual average water consumption.³⁸⁹ The overall water supply capacity needed for the MWSD to serve 1,000 new connections is approximately 483,458 gpd (annual average) and 773,533 gpd (maximum daily demand).³⁹⁰

The average daily demand within the Upper Moss Beach area encompassing the project site is 7,400 gpd.³⁹¹ The total MWSD water demand is 296,018 gpd. The project would house approximately 213 residents, equaling approximately 14,060 gpd. This would represent a substantial increase in water demand in the Upper Moss Beach area. However, the project is a priority land use that has designated water supply capacity reserved for it as shown in Table 2.17 of the 2013 San Mateo County LCP, recreated above as Table 3.11-2. The buildout of 148 potential total residential units includes an allocation capacity of 35,816 to 51,504 gpd.³⁹² The project proposes 71 residential units, less than half allowed under the existing LCP allocation. Therefore, the estimated water demand of 14,060 gpd is within the allocated capacity under the LCP priority uses. Given the project has a reserved water supply, the project would not contribute to the shortfall of water supply.

Therefore, the MWSD has adequate capacity to supply the project, and no new facilities would be needed. This impact would be less than significant. Compliance with the State of California Green Building Standards Code requirements, particularly through the use of water-efficient fixtures and landscaping, would further reduce this less-than-significant impact.

Impact UT-3: Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? (Less Than Significant)

The proposed project would not require or result in the construction of new wastewater treatment facilities, or the expansion of existing treatment facilities. The MWSD is continuously upgrading its wastewater transmission system, and the need to increase facility size due to anticipated growth, including the proposed project, is not anticipated.³⁹³ Therefore, the MWSD will continue maintenance activities on its sanitary sewer system, and some of these maintenance improvements could support sewer collection

³⁸⁸ MWSD, 2017.

³⁸⁹ County of San Mateo. 2013. *Local Coastal Program*. Available at: <https://www.smcgov.org/planning/local-coastal-program>. Accessed June 22, 2023

³⁹⁰ County of San Mateo, 2013. *Local Coastal Program*. Table 2.9.

³⁹¹ MWSD, 2017.

³⁹² County of San Mateo, 2013. *Local Coastal Program*. Table 2.17. Available at: <https://www.smcgov.org/planning/local-coastal-program>. Accessed June 22, 2023.

³⁹³ MWSD. 2014. Sewer System Management Plan. Available online at: <https://mwsd.montara.org/assets/uploads/documents/legal-regulatory/2014%20MWSD%20SSMP%20FINAL%20Elements%20I-XI.pdf>. Accessed June 21, 2023

for the project. The MWSD has adequate capacity for the additional demands for wastewater collection, which could result from implementation of the project, to comply with the MWSD standard code. The SAM has sufficient capacity to accommodate the additional demands for wastewater treatment. In 2016, the average daily flow through the WWTP was 1.64 MGD and the design capacity is 4 MGD.³⁹⁴

The project is a priority land use that has wastewater service capacity reserved as shown in Table 2.7 in the 2013 San Mateo County LCP, recreated above as Table 3.11-2. The buildout of 365 total residential units under the LCP priority uses includes an allocation capacity of 66,340 to 94,900 gpd.³⁹⁵ Residential wastewater treatment demand in the SAM service area is approximately 85 gpd per person.³⁹⁶ The project would house approximately 213 residents, equaling approximately 18,105 gpd. Therefore, the estimated wastewater demand of 18,105 gpd is within the allocated capacity under the LCP priority uses.

As the project is a priority land use that has wastewater service capacity reserved as described in the 2013 San Mateo County LCP, the wastewater treatment demand of the proposed project would be supplied by SAM and MWSD's priority use capacity reserves for priority land uses. Therefore, this impact would be less than significant, and no mitigation is required.

Impact UT-4: Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? (Less than Significant)

Both project construction and operation would generate solid waste. Construction activities for the project involve demolition and site preparation that would generate solid waste (i.e., building material debris, cardboard, insulation, asphalt, concrete). Once constructed, the project residents would generate solid waste, which would be disposed in three waste enclosures on-site. On average, residential households generate 12.23 pounds of solid waste per day. The project would construct 71 residential units, resulting in approximately 868 pounds of solid waste per day. In 2018, the OMSL received an average daily tonnage of 1,700 tons per day.³⁹⁷ The OMSL has a maximum daily tonnage of 3,596 tons per day and a remaining capacity of approximately 22,000,000 cubic yards as of December 31, 2016. Based on current waste disposal rates, average density of the waste, and daily cover usage at the facility, the estimated closure date for the landfill is 2034.³⁹⁸ Therefore, there is adequate landfill capacity at the OMSL for the proposed Cypress Point project. This impact is less than significant, and no mitigation is required.

As described above, under Chapter 4.105 of the County Municipal Code, construction projects in unincorporated San Mateo County must divert 100% of inert construction and demolition materials and at least 50% of remaining construction and demolition debris tonnage from landfills for recycling or reuse. The project would comply with this requirement and submit a Waste Management Plan, summarizing the intended salvage, reuse, and recycling facilities for all construction and/or demolition debris from the project. Because the trash service provider complies with applicable federal, state, and local requirements regarding solid waste removal and diversion targets, and the landfill serving the project area has sufficient capacity to accommodate solid waste needs, no modification or expansion of solid waste facilities or

³⁹⁴ California San Francisco Regional Water Quality Control Board, 2017.

³⁹⁵ County of San Mateo. 2013. *Local Coastal Program*. Table 2.7. Available at: <https://www.smcgov.org/planning/local-coastal-program>. Accessed June 22, 2023

³⁹⁶ County of San Mateo. 2013. *Local Coastal Program*. Table 2.3. Available at: <https://www.smcgov.org/planning/local-coastal-program>. Accessed June 22, 2023

³⁹⁷ California RWQCB, 2018b. Application for Solid Waste Facility Permit and Waste Discharge Requirements. July 11, 2018.

³⁹⁸ CalRecycle. 2017. *SWIS Facility Detail. Corinda Los Trancos (Ox Mtn) (41-AA-0002)*. Available at: <https://www2.calrecycle.ca.gov/SWFacilities/Directory/41-AA-0002/Detail>. Accessed June 13, 2023.

operations would be necessary. Impacts to solid waste disposal would be less than significant and no mitigation is required.

Impact UT-5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste? (No Impact)

The project would comply with all state and local ordinances for water, energy, and waste reduction and management, including but not limited to, the State California Green Building Standards Code requirements; San Mateo County Municipal Code Chapter 4.105, Recycling and Diversion of Construction and Demolition Debris; Waste Management Plan for construction debris; and Low Impact Development treatment measures to control stormwater. Therefore, the project would comply with all federal, state, and local management and reduction statutes and regulations. No impact would occur.

3.11.6 Cumulative Impacts

Impact C-UT-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to utilities and service systems? (Less Than Significant)

The MWSD planned for the regional infrastructure improvements included in the 2017 Master Plan. The proposed project does not currently include or require any significant off-site infrastructure improvements. In the event infrastructure improvements are needed to support the proposed project, any such improvements would be developed in previously developed rights-of-way. These improvements would be similar to other routine types of improvements undertaken by MWSD and other service providers and would not result in any significant direct or cumulative impacts. Also, the proposed project would be required to make water distribution improvements consistent with the 2017 Master Plan, there would be no cumulatively considerable contribution to this less-than-significant cumulative effect, and no mitigation is required.

The MWSD system currently has enough water supply to support the long-term demands that correspond to the addition of over 900 connections. This additional reliable supply can meet the demands of the population currently residing within the service area but not connected to the system, as well as provide a reliable supply for additional new connections.³⁹⁹

The proposed project's cumulative contribution would not require or result in the construction of new wastewater treatment facilities, or the expansion of existing treatment facilities. The total sewage treatment capacity needed to serve the combined residential and non-residential Mid-Coast buildout is 1.96 MGD.⁴⁰⁰ SAM has sufficient capacity to accommodate the additional demands for wastewater treatment, and MWSD has adequate capacity for the additional demands for wastewater collection that could result from operation of the Cypress Point project, with implementation of expected MWSD conditions of approval. Because the proposed project is a priority land use that has wastewater service capacity reserved as described in the 2013 San Mateo County LCP, the wastewater treatment demand of the proposed project will be supplied by SAM and MWSD's capacity reserves for priority land uses. There would be a less-than-significant cumulative impact to which the Cypress Point project would make a less than cumulatively considerable contribution. No mitigation is required.

³⁹⁹ MWSD, 2017.

⁴⁰⁰ County of San Mateo, 2013.

3.12 WILDFIRE

This section describes the potential impacts of wildfire upon the development of the proposed multi-family residential use. Potential effects are evaluated relative to important vegetation, water supply, and fire department response. Impacts on wildfire are addressed through an evaluation of the changes to the existing environment and the modifications that would alter the environment in a post-fire environment. The evaluation of wildfire is based on the following technical studies:

- *Biological Impact Report*, SWCA, May 2023 (Appendix D)⁴⁰¹
- *Wildfire and Evacuation Route Assessment*, SWCA, May 2023 (Appendix N)⁴⁰²
- *Geotechnical Investigation Cypress Point Family Community 16th And Carlos Streets Moss Beach, California*. Rockridge Geotechnical. 2022. (Appendix F)⁴⁰³

The Biological Impact Report included an extensive literature search of the 2-mile area surrounding the project site, followed by a field survey conducted on April 3, 2023. The field survey included the project site and a 250-foot buffer surrounding the site (biological survey area). The Wildfire and Evacuation Route Assessment included the use of a web-based application that models fire behavior and the use of Ladris Technologies' evacuation modeling software.

3.12.1 Existing Conditions

The proposed project is located on an 11.02-acre parcel adjacent to the northeast corner of Carlos and Sierra Streets in the unincorporated community of Moss Beach, San Mateo County, California. The topography within the project site is generally flat and gently slopes westward toward the Pacific Ocean. The project site consists of developed uses, including neighboring residences and roadways, water tanks and an associated maintenance structure operated by Montara Water and Sanitary District (MWSD), concrete remnants of military facilities that are scattered throughout the project site, dirt access roads around the perimeter of the project area, and undeveloped land dominated by a mix of native and non-native vegetation.

Topography, Elevation, and Climate

The project site has a range of slopes from 10% to 50%. Elevations range from a high point of 205 feet above mean sea level (amsl) on the east side of the project adjacent to Lincoln Street to a low point of 95 feet amsl at the northwest boundary along 16th Street.⁴⁰⁴ Montara Creek, a perennial stream, is approximately 250 feet northeast of the project site and runs parallel to the northern border of the site (prior to emptying into the Pacific Ocean). Residential communities occur to the east and south of the project site. These communities span approximately 250 and 200 acres, respectively. San Mateo County has a Mediterranean climate characterized by cool wet winters, with an average of 29.6 inches of rain per year, and relatively warmer dry summers with coastal fog.⁴⁰⁵

⁴⁰¹ SWCA. 2023a. *Biological Impact Report*. Half Moon Bay, California: SWCA Environmental Consultants

⁴⁰² SWCA. 2023b. *Wildfire and Evacuation Route Assessment*. Half Moon Bay, California: SWCA Environmental Consultants.

⁴⁰³ Rockridge Geotechnical. 2022. *Geotechnical Investigation Cypress Point Family Community 16th And Carlos Streets Moss Beach, California*. June 2022.

⁴⁰⁴ Pyatok Architects. 2022. *Cypress Point Family Community. Coastal Development Permit Submittal*. Pyatok Architects. June 2022.

⁴⁰⁵ SWCA, 2023a.

Vegetation and Fuels

Vegetation communities present on the project site include Monterey cypress–Monterey pine woodland stands (*Hesperocyparis macrocarpa*–*Pinus radiata* Forest and Woodland Semi-Natural Alliance), coyote brush scrub (*Baccharis pilularis* Shrubland Alliance), perennial rye grass fields, and developed/disturbed areas. Thick vegetation also covers the majority of the project site outside the areas of the concrete building foundations.

Within the project site, fuel loadings vary from low to moderate depending on the species present, past activities on-site, and recent weather patterns.

Water Supply

The project site is served by the MWSD. The project would extend water lines from the existing MWSD tanks to the proposed new structures and facilities for potable water and fire water supply, as well as irrigation of landscaping. The proposed new water line would extend from the existing tanks within the existing 10-foot right-of-way along the eastern and northern parts of the project. New domestic water and fire water lines would be in the proposed project’s driveway loop and parking areas, with individual connections to each building.

Fire History

From 2003 to 2022, three vegetation fires occurred within a 2-mile radius of the project site. All fires were less than 1 acre, with causes of “undetermined.” Historically, the most common causes of wildfires in San Mateo County have been “undetermined” or due to equipment use, power line/electric power, and other miscellaneous causes.⁴⁰⁶

Fire Risk, Protection, and Response

The project site is not located within a California Department of Forestry and Fire Protection (CAL FIRE)–designated very high, high, or moderate fire hazard severity zone (FHSZ)⁴⁰⁷ (Figure 3.12-1).

The Coastside Fire Protection District (Coastside FPD) would provide fire protection and emergency response services for the project site. The Coastside FPD serves the City of Half Moon Bay; the communities of Montara, Moss Beach, Princeton, El Granada, and Miramar; and the surrounding unincorporated areas. Its service area covers approximately 50 square miles and serves a population of approximately 30,000 residents. In addition to traditional fire services, the Coastside FPD provides advanced life support, cliff rescue, water rescue, confined space rescue, and vehicle and residential lock-out services, and responds to approximately 2,600 calls each year. These incidents include medical aid, fires and fire alarms, water rescue, cliff rescue, traffic accidents, odor investigations, hazardous materials, and public service assists.

⁴⁰⁶ SWCA, 2023b.

⁴⁰⁷ County of San Mateo. 2007. Very High Fire Hazard Severity Zones in LRA. Available at: <https://www.smcgov.org/media/73036/download?inline=>. Accessed June 10, 2023.

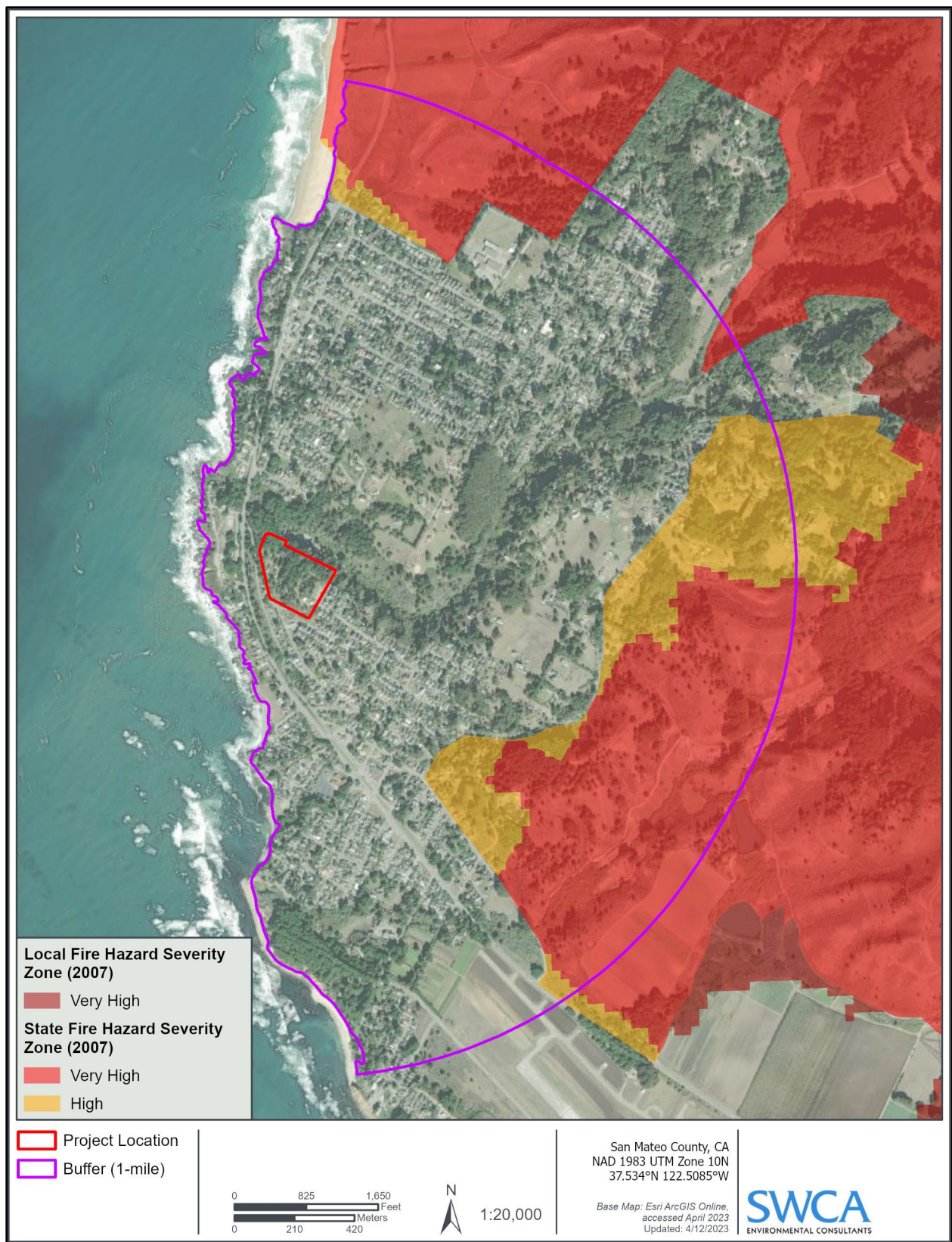


Figure 3.12-1. CAL FIRE FHSZ classifications.

Three fire stations operate within the Coastside FPD: Fire Station 44, located on Stetson Street in Moss Beach one block (approximately 300 feet) from the project site; Fire Station 40, located within the downtown area of the City of Half Moon Bay; and Fire Station 41, located within the unincorporated area of El Granada. Fire Station 40 serves as the Coastside FPD headquarters. Fire Station 44 (Moss Beach) would provide initial fire and emergency medical service response to the project site, and Fire Stations 41 (El Granada) and 40 (Half Moon Bay) would support the initial response if needed.

Coastside FPD's response time goal is within 6 minutes 59 seconds of receiving a call. In an email to SWCA on May 11, 2023, the Coastside FPD Chief confirmed that response times are currently met throughout the service area.⁴⁰⁸ The proximity of Fire Station 44 to the project site indicates that response times would meet the established goal.

The Coastside FPD has 32 paid positions, along with 11 volunteer firefighter positions. Paid positions include one assistant fire chief, one fire marshal, one deputy fire marshal, four battalion chiefs, and two administrative support positions. All stations are staffed with one fire captain and two fire apparatus engineers, one of whom is a paramedic to provide advanced life support service. Shift personnel work a scheduled 3-day/72-hour work week.

The Half Moon Bay Volunteer Fire Department is a volunteer division of the Coastside FPD. The Volunteer Fire Department has approximately 15 members and is under the direction of the fire chief. The number of volunteers reflects the current needs of the Volunteer Fire Department and is determined by the chief of the volunteer division. The objectives of the Volunteer Fire Department are to operate within the boundaries of the Coastside FPD as a supplemental force to the regular paid department and to operate as a trained unit for both fire suppression and non-suppression situations.

3.12.1.1 Roadway Network

There is an extensive network of roads, both well-maintained dirt and major paved roads, surrounding the project site. Main roads in this network include SR-1, Carlos Street, Sierra Street, Stetson Street, Etheldore Street, California Avenue, and Airport Street. These roads can all support weight loads of fire apparatus and allow for project site access from all directions. There are main arteries from the nearest communities and fire stations that provide direct emergency response services.

3.12.2 Regulatory Setting

3.12.2.1 State

3.12.2.1.1 CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CAL FIRE)

The CAL FIRE has mapped fire hazard potential on State Responsibility Areas (SRAs) throughout California. CAL FIRE classifies fire hazards based on fuel loading and availability, topography, fire history, and climate, particularly wind. The classifications on SRA include moderate, high, and very high fire hazards. Additionally, CAL FIRE produced a 2018 Strategic Fire Plan⁴⁰⁹ for California that contains goals, objectives, and policies to prepare for and mitigate the effects of fire on California's natural and built environments. CAL FIRE's Office of the State Fire Marshal provides oversight of enforcement of the California Fire Code (CFC) as well as overseeing hazardous liquid pipeline safety.

⁴⁰⁸ Personal communication between Coastside Fire Department Chief and Erica Rippe, dated May 11, 2023.

⁴⁰⁹ CAL FIRE, 2018. 2018 Strategic Fire Plan for California. Available at: https://osfm.fire.ca.gov/media/5590/2018-strategic-fire-plan-approved-08_22_18.pdf. Accessed June 2023.

3.12.2.1.2 CALIFORNIA FIRE CODE

The CFC is Part 9 of Title 24 of the CBC. The CFC is updated every 3 years and includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire water access and flow requirements, and the clearance of debris and vegetation within a determined distance from occupied structures in wildfire hazard areas. Fire protection is provided to the site by a cooperative fire protection contract between the Coastside FPD and CAL FIRE and, as such, the CFC is implemented and enforced at the project site.

3.12.2.1.3 CALIFORNIA PUBLIC RESOURCES CODE

The California Public Resources Code, Section 4291, states that a building or structure in or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material, shall maintain 100 defensible feet of space from each side and the front and rear of the structure, but not beyond the property line unless modified by local regulations. The amount of fuel modification necessary to create defensible space shall consider the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure. This regulation does not apply to single specimens of trees or other vegetation that are well-pruned and maintained to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a structure or from a structure to other nearby vegetation. The intensity of fuel management may vary within the 100-foot perimeter of the structure, the most intense being within the first 30 feet around the structure. Consistent with fuel management objectives, steps should be taken to minimize erosion.

3.12.2.1.4 SPRINKLER SYSTEMS: CALIFORNIA RESIDENTIAL CODE, CHAPTER 3, SECTION R313

All new dwellings, dwelling units, and one- and two-family townhomes must be equipped with an automatic fire sprinkler system that can protect the entirety of the dwelling. Dwellings and homes constructed prior to January 1, 2011, that do not have a sprinkler system may be retrofitted, but it is not required.

3.12.2.1.5 FIRE SAFETY STANDARDS: CALIFORNIA PUBLIC RESOURCES CODE 4290 AND 14 CALIFORNIA CODE OF REGULATIONS 1270

These regulations govern roads, driveway width, clearance, turnarounds, signing, and water related to fire safety throughout California. Public Resources Code 4290 is typically enacted through regulation at the county level, and 14 CCR 1270 is known as the State Minimum Fire Safe Regulations and constitutes the minimum wildfire protection standards of the California Board of Forestry and Fire Protection.

3.12.2.1.6 WILDLAND-URBAN INTERFACE BUILDING STANDARDS: CALIFORNIA GOVERNMENT CODE 51189

The Office of the State Fire Marshal is required to create building standards for wildfire resistance. Construction of buildings in the wildland-urban interface must use fire-resistant materials to save life and property. As of 2011, the standards relevant to fire-safe construction for all new structures in the SRA are the California Building Code (CBC), Chapter 7A (for commercial construction) and the California Residential Code, Chapter 3, Section R327 (for residential construction).

3.12.2.1.7 STATE RESPONSIBILITY AREA: PUBLIC RESOURCES CODE 4102, 4125–4229, AND 14 CCR 1220

These statutes and regulations establish the locations where CAL FIRE has the financial responsibility for preventing and suppressing fires. These designations define financial arrangements for fire protection services and establish the locations where fire-safe and defensible space laws or regulations apply.

3.12.2.1.8 HAZARDOUS FIRE AREAS: PUBLIC RESOURCES CODE 4251–4255 AND 14 CCR 1200

These laws and regulations allow petitioners to the Board of Forestry and Fire Protection or CAL FIRE to establish hazardous fire areas, providing for area closures and other restrictions for fire prevention.

3.12.2.2 Local

3.12.2.2.1 SAN MATEO COUNTY LOCAL COASTAL PROGRAM

The Local Coastal Program provides policies regarding development and project design standards in the coastal zone of San Mateo County.⁴¹⁰ This includes hazards such as high-risk fire areas and vegetation management. The Local Coastal Program policies are adopted by reference in the County of San Mateo's (County's) Zoning Regulations under Chapter 20B, Sections 6328.19 through 6328.30.

3.12.2.2.2 SAN MATEO COUNTY GENERAL PLAN

Chapter 15 (Natural Hazards) of the General Plan defines fire hazards as wildland or structural fires that occur in remote areas, have difficult access for fire vehicles, and/or contain potentially flammable vegetative communities.⁴¹¹ The General Plan adopts CAL FIRE–designated FHSZs and other fire protection district hazardous areas relating to wildfire.

The following policies relate to wildfire hazards from the County of San Mateo General Plan.

15.30 Standards for Water Supply and Fire Flow for New Development

- a. Require connection to a public water system or private water company or provision of an on-site water supply as a condition of approval for any new development proposal.
- b. Determine the quantity of on-site water supply, fire flow requirements and spacing and installation of hydrants in accordance with the standards of the agency responsible for fire protection for the site proposed for development.
- c. Consider the use of additional on-site fire protection devices including but not limited to the use of residential sprinkler systems and contracting the services of private alarm companies for development proposed in remote areas.

15.31 Standards for Road Access for Fire Protection Vehicles to Serve New Development

- a. Consider the adequacy of access for fire protection vehicles during the review of any new development proposal.

⁴¹⁰ County of San Mateo. 2013. Local Coastal Program. Available at: <https://www.smcgov.org/planning/local-coastal-program>. Accessed May 20, 2023.

⁴¹¹ San Mateo County. 2021a. County of San Mateo General Plan: Updated January 2013. Chapter revisions 2021. Available at: <https://www.smcgov.org/planning/general-plan-policies>. Accessed March 2023.

- b. Determine the adequacy of access through evaluation of the length of dead-end roads, turning radius for fire vehicles, turnout requirements, road widths and shoulders, and other road improvement considerations for conformance with the standards of the agency responsible for fire protection for the site proposed for development.
- c. To the maximum extent possible, design access for fire protection vehicles in a manner that will not result in unacceptable impacts on visual, recreational, and other valuable resources.

15.32 Street Signing

Support efforts to identify all roads, streets, and major public buildings in a manner so they are clearly visible to fire protection and other emergency vehicles.

15.33 Road Patterns

- a. Ensure road patterns that facilitate access for fire protection vehicles and provide secondary access and emergency evacuation routes when reviewing proposals for new subdivisions.
- b. Encourage the Department of Public Works to study existing road patterns that have access problems to determine the feasibility and costs of access improvements.
- c. Encourage fire protection agencies to identify emergency access and evacuation routes for existing developed areas and to provide this information to area residents.

15.34 Vegetative Clearance Around Structures

- a. Require clearance of flammable vegetation around structures as a condition of approval to new development in accordance with the requirements of the agency responsible for fire protection.
- b. Conduct periodic inspections to ensure maintenance of required clearances.

15.35 Fire-Retardant Vegetation

Encourage the use of fire-retardant vegetation when reviewing new development proposals.

3.12.2.2.3 SAN MATEO COUNTY EMERGENCY OPERATIONS PLAN

The Emergency Operations Plan (EOP) establishes policies and procedures and assigns responsibilities to ensure the effective management of emergency operations within the San Mateo County Operational Area. The EOP provides information on the county emergency management structure of how and when the Emergency Operations Center staff is activated.

The overall objective of the EOP is to ensure the effective coordination of response forces and resources in preparing for and responding to situations associated with natural disasters, technological incidents, and national security emergencies. To carry out its responsibilities, the emergency management organization will complete the following tasks during an emergency/disaster:

- Maintain overall coordination/support of emergency response and recovery operations, including on-scene incident management as required.
- Coordinate and liaise with appropriate federal, state, and other local government agencies, as well as applicable segments of private sector entities and volunteer agencies. Establish priorities and resolve conflicting demands for support.
- Prepare and disseminate emergency information to alert, warn, and inform the public.
- Disseminate damage information and other essential data.

The EOP's goals are as follows:

- Provide effective life safety measures and reduce property loss and damage to the environment.
- Provide for the rapid resumption of impacted businesses and community services.
- Provide accurate documentation and records required for cost recovery efforts.

3.12.2.2.4 SAN MATEO COUNTY LOCAL HAZARD MITIGATION PLAN

Beginning in February 2021, a partnership of 36 local governments and special districts in San Mateo County began working together to update the San Mateo County Multijurisdictional Local Hazard Mitigation Plan (HMP).⁴¹² This plan enables the jurisdictions to use pre- and post-disaster financial assistance to reduce the risk of natural hazards to people who live in San Mateo County.

The HMP identifies long-term and short-term policies, programs, projects, and other activities to alleviate death, injury, and property damage that can result from a disaster. The types of hazards identified and described throughout the HMP include earthquakes, dam failure, drought, wildfire, flooding, landslide, tsunami, and climate change. The HMP complies with requirements for hazard mitigation planning to maintain eligibility for funding under Federal Emergency Management Agency grant programs. The HMP also serves other purposes; it enhances public awareness, establishes a decision tool for management, promotes compliance with state and federal program requirements, enhances local policies for hazard mitigation, supports viability after a hazard event, and provides inter-jurisdictional coordination.⁴¹³

3.12.2.2.5 CONNECT THE COASTSIDE

Connect the Coastside serves as the San Mateo County Midcoast Comprehensive Transportation Management Plan.⁴¹⁴ Connect the Coastside aims to improve safety and mobility for Midcoast residents, businesses, and visitors by recommending a suite of projects, policies, and programs to address current and future transportation conditions in the Midcoast Comprehensive Transportation Management Plan. The Midcoast area faces challenges in realizing community goals and vision for transportation. Climate change has accelerated sea level rise, coastal erosion, and the number and severity of emergencies like wildfires.

The following is an overview of different County departments and special projects related to emergency response and hazard mitigation planning:

- In the event of a disaster, the Department of Emergency Management coordinates countywide response and protection services. One of the missions of the Department of Emergency Management is to maintain and improve the Countywide EOP. This plan establishes policies and procedures and assigns responsibilities to keep residents safe during an emergency.
- During an emergency or disaster, law enforcement is responsible for evacuating and moving the public away from a hazard area. Representatives from law enforcement and public safety agencies were part of the Connect the Coastside Technical Advisory Committee that reviewed and helped refine the plan proposals.

⁴¹² San Mateo County. 2021b. *2021 Multijurisdictional Local Hazard Mitigation Plan*. Prepared by Tetra Tech for County of San Mateo Department of Emergency Management. Available at: <https://www.smcgov.org/media/53471/download?inline=>. Accessed May 2023.

⁴¹³ San Mateo County, 2021b.

⁴¹⁴ San Mateo County. 2022. *Connect the Coastside*. Available at: <https://www.smcgov.org/planning/connect-coastside>. Accessed June 2023.

- In the event of an emergency, public safety agencies such as police and fire will be able to provide emergency information directly to people who have registered for the San Mateo County Alert service. These alerts may include life safety, fire, weather, accidents involving utilities or roadways, or disaster notifications. For example, the San Mateo County Alert service would be used to notify Coastside employees and citizens of available evacuation routes during an emergency.
- In March 2019, Supervisor Don Horsley allocated \$75,000 of discretionary Measure K funds to launch the development of a countywide, standardized emergency evacuation zone project (Zonehaven). The goals of the project are to reduce the amount of time it takes to notify the public, create a common operating evacuation platform for all jurisdictions, share information, and help people safely and efficiently evacuate in case of an emergency. Since the project began, the CAL FIRE San Mateo Division has worked with every fire and law enforcement agency in San Mateo County to identify over 300 evacuation zones. The project includes a public webpage that shows a map of each evacuation zone and a software application that helps first responders call for evacuations using the standard zones. This will greatly reduce the time from when an evacuation is called to when the public is notified. Additionally, the application integrates with Waze and Google Maps, so as soon as a zone is closed people will be directed accordingly. Zonehaven was used to create an Evacuation Zone Map for the CZU Lightning Complex Fire in August 2020. The platform is available at <https://community.zonehaven.com/>.
- The County of San Mateo updated its HMP and will update the Safety Element of the General Plan. The County will be working with emergency service providers such as CAL FIRE, the Department of Emergency Management, and the new Flood and Sea Level Rise Resiliency District. These efforts will further evaluate hazard risks and identify safety measures for the Midcoast.

3.12.3 Thresholds of Significance

The determinations of significance of project impacts are based on applicable policies, regulations, goals, and guidelines defined by the California Environmental Quality Act (CEQA) and the County. Specifically, the project would be considered to have a significant effect on wildfires if the project is in or near state responsibility areas or lands classified as a very high FHSZ and effects exceed the significance criteria described below:

1. Substantially impair an adopted emergency response plan or emergency evacuation plan.
2. 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.
3. 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.
4. 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.

Each of these thresholds is discussed under Section 3.12.5, Impacts and Mitigation Measures, below.

3.12.4 Impact Assessment and Methodology

The analysis also considers existing regulations that apply to building design and construction, including the CBC. Through compliance with the existing codes and ordinances, the project would be required to demonstrate compatibility with the local wildfire conditions before issuing building permits.

3.12.5 Impacts and Mitigation Measures

Impact WF-1: Would the project substantially impair an adopted emergency response plan or emergency evacuation plan? (Less Than Significant)

The project site is not located in an SRA classified as a very high FHSZ. The site is in unincorporated San Mateo County. Local plans, such as the 2021 HMP and the Connect the Coastside Plan describe coordinated actions and recommendations to reduce wildfire risk and enhance emergency response; this includes the identification of alternative evacuation routes and establishment, as needed, for wildfire and other hazards. The County has not adopted an emergency evacuation plan.

Vehicular ingress/egress into the project site would be provided by a new 28-foot-wide single driveway from Carlos Street on the western boundary of the site, which exceeds the 20-foot road width requirement in the California Fire Code, Section 503.⁴¹⁵ In addition to the Carlos Street entrance, a 20-foot-wide emergency access route from Lincoln Street to the northeast corner of the project site would be constructed. As stated in Section 3.10, Transportation, the site would not result in inadequate emergency access.

The project site is located within 300 feet of Fire Station 44, ensuring sufficient emergency response if necessary. The Coastside FPD's response time goal is to respond within 6 minutes 59 seconds of receiving a call. In an email on May 11, 2023, the District Chief confirmed that response times are currently met throughout the district.⁴¹⁶

An evacuation simulation of residents was run for the project as part of the Wildfire and Evacuation Technical Study.⁴¹⁷ Evacuation of residents during an emergency incident is a dynamic situation requiring coordination among different agencies and local residents and is recommended by authorities to reduce the risk of residents being impacted by hazards from natural and human-made disasters, such as fire, as well as secondary effects like road congestion. Evacuation recommendations (geographic area, timing, routes) by authorities are done in a manner to help minimize traffic blocks and aid emergency responders during incident operations. Evacuation processes also may be impacted in situations of increased population, such as during a large public event or high visitation seasons. Ladriz Technologies' evacuation platform was used to model potential changes in evacuation times with the increase in residents from the project; it did not account for a potential increase in population due to employees or visitors in the analysis area.

All evacuation simulations were considered with a 1-hour maximum departure timeframe for residents, meaning all vehicles are entering roadways over a 1-hour window. Regional occupancy coverage was set to 100% for each simulation, indicating the maximum number of residents (vehicles) was modeled. All residents within Zonehaven's designated zone SMC-E029 (the zone where the project is located) were evacuated to the Coast Side Clinic located at 225 South Cabrillo Highway in Half Moon Bay. At the request of the County, this location was decided as the established shelter during emergency evacuation

⁴¹⁵ SWCA, 2023b.

⁴¹⁶ Personal communication between Coastside Fire Department Chief and Erica Rippe, dated May 11, 2023.

⁴¹⁷ SWCA, 2023b.

situations in the area.⁴¹⁸ Resident evacuation simulations indicate that the project would increase evacuation time by approximately 18% for median travel time and 1% for maximum travel time⁴¹⁹ (Table 3.12-1).

Table 3.12-1. Travel Times with and without Proposed Development

Project Status	Median Time (H, M)*	Percent Increase	Maximum Time (H, M)*	Percent Increase
No development	1H, 27M	–	2H, 22M	–
Development	1H, 43M	18.3%	2H, 23M	1%

Source: Ladris Technologies evacuation modeling software.

* H = hours; M = minutes

As the Midcoast area experiences further growth and development, the County anticipates that exposure to wildfire hazards will remain the same or decrease over time due to codes and regulations enforcement for new construction.⁴²⁰ The project would follow all applicable local, state, and federal regulations designed to reduce wildfire risk for new developments, including defensible space measures, fire-resistant building materials and features, and emergency vehicle ingress/egress routes in compliance with California Fire Code Title 24.⁴²¹ Current programs—SMC Alert⁴²² and Coastside FPD’s Community Connect⁴²³—are initiatives used to contact residents during an urgent or emergency situation as well as provide relevant information about residences to aid emergency responders during incident response. This may include instructions from County public safety officials to shelter in place during certain emergency situations when it is determined to be safer than evacuating. Local plans, such as the 2021 HMP and the Connect the Coastside Plan further describe coordinated actions and recommendations to reduce wildfire risk and enhance emergency response; this includes identification of alternative evacuation routes and establishment, as needed, for wildfire and other hazards. The project would not impair current adopted plans, including the San Mateo County EOP.

Impact WF-2: *Would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? (Less Than Significant)*

The project is not located in an SRA classified as a very high FHSZ. Slopes on the project site range from 10% to 50%, and elevations range from the high point of 205 feet amsl on the east side of the project adjacent to Lincoln Street to the low point of 95 feet amsl at the northwestern boundary along 16th Street. The project site does not have any significant topographic features.

Project development would result in changes to vegetation on-site by removing grasses and trees and replacing an existing undeveloped area with 16 residential buildings, a community building, parking lots and access roads, landscaping, and other improvements (Figure 3.12-2). To minimize fire risk for future residents, the project incorporates measures such as development of an emergency access route from

⁴¹⁸ Teleconference call on April 27, 2023. Information from Steve Monowitz regarding anticipated location of emergency evacuation center.

⁴¹⁹ SWCA, 2023b.

⁴²⁰ San Mateo County, 2021b.

⁴²¹ SWCA, 2023b.

⁴²² San Mateo County. 2023a. SMC Alert. Available at: <https://www.smcgov.org/ceo/smc-alert>. Accessed June 2023.

⁴²³ Community Connect. 2023. Coastside Fire Protection District. Available at: <https://www.communityconnect.io/info/ca-coastside>. Accessed June 2023.

Lincoln Street to the northeast corner of the project site, fire flow water line, fire-resistant building materials, removal of approximately 295 trees,⁴²⁴ and implementation of a 30-foot fire break area and a 100-foot reduced fuel zone surrounding the development as part of the project design pursuant to the HMP and Public Resource Code 4291.⁴²⁵ The 30-foot fire break would be cleared of all flammable vegetation (except irrigated grass mowed to a vertical height of 4 inches or less), and the 100-foot reduced fuel zone would maintain vegetation (grass and shrubs) reduced to a maximum vertical height of 4 inches. The reduced fuel zone would ensure adequate spacing between any existing trees, which is a minimum of 10-foot spacing between the widest points of the crown of adjacent trees. Tree crowns would be limbed or trimmed to reach this spacing; some trees may also need to be removed. The 100-foot reduced fuel zone extends 70 feet beyond the 30-foot fire break area. Fire is an intrinsic part of the landscape, and during seasonal prevailing winds when fire season peaks, risks would be reduced to a less-than-significant level through the implementation of defensible space around the buildings, using ignition-resistant equipment, and the addition of domestic fire water lines on the project site.

In addition to the project's proposed design features to minimize fire risk, the minimal fire history, discontinuity of fuels across the landscape (both naturally and from human-made features), and the low-to-moderate predicted fire behavior (burn probability, rate of spread, and crown fire) in the project site and 1-mile buffer area indicate a low fire hazard.⁴²⁶ While the proposed development could potentially increase human-caused ignitions, during construction and operation, modeled fire behavior does not indicate extreme fire behavior or fire spread; the project would not exacerbate wildfire risks and thus not expose future occupants to pollutant concentrations due to slope or prevailing winds. The proposed project activities, such as the addition of paved roads and other nonburnable surfaces associated with project development, further fragment flammable fuels, preventing fire spread by acting as fuel breaks. Additionally, the suppression difficulty index shows a low difficulty in suppression efforts for the project site, indicating the likelihood of stopping fire progression, which would minimize fire size and adverse impacts to the environmental setting. Therefore, the impact is less than significant.

⁴²⁴ HortScience | Bartlett Consulting. 2022. Arborist Report, Cypress Point. HortScience | Bartlett Consulting. July 1.

⁴²⁵ San Mateo County, 2021b.

⁴²⁶ SWCA, 2023b.

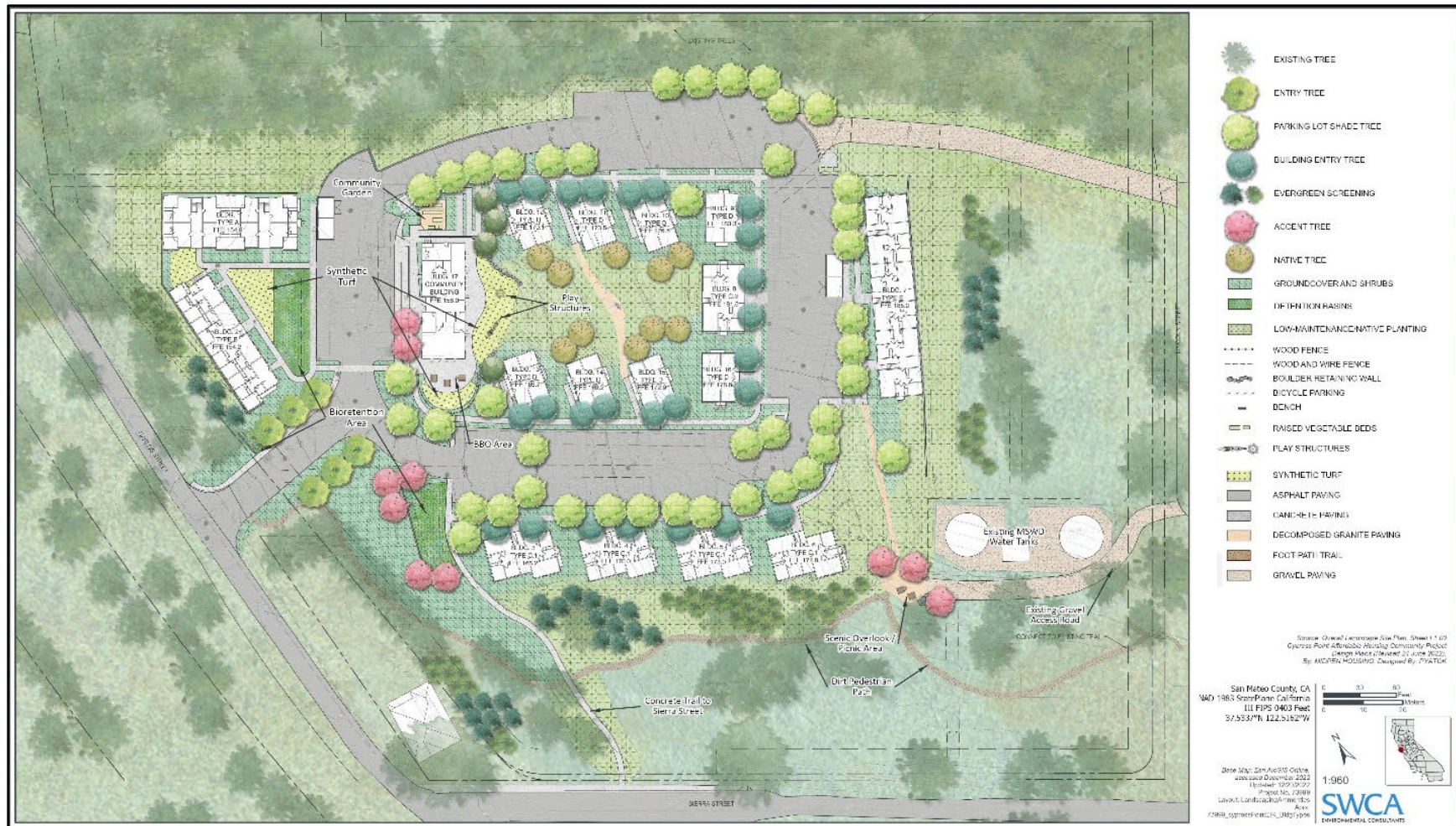


Figure 3.12-2. Landscaping amenities.

Impact WF-3: Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? (Less Than Significant)

The project is not located in an SRA classified as a very high FHSZ. Installation and maintenance of infrastructure are proposed to accommodate the project. These infrastructure characteristics include development of a new 28-foot-wide single driveway on Carlos Street on the western boundary of the project site and an emergency access route from Lincoln Street to the northeast corner of the project site. Public utility lines would be extended throughout the project site. A new, 10-foot-wide Pacific Gas and Electric easement would follow the driveway and parking areas, with individual electrical extensions to each building. Overhead utility lines in open areas and the scenic corridor would be trenched.

The project site contains easements for facilities operated by MWSD, including two water storage tanks with a height of 35 feet in the southeastern portion of the project site, a booster pump system, and distribution facilities within a fenced parcel of land adjacent to and west of the intersection of Lincoln Street and Buena Vista Street near the eastern boundary of the project site. The project would have water tanks capable of supplying a flow of 100 gallons of water per minute for 2 hours, as required by CFC, Section 507⁴²⁷ and in compliance with the County General Plan.⁴²⁸ The project would extend water lines to new project facilities for potable water and fire water supply, as well as for irrigation of landscaping. The proposed water line would extend from the existing MWSD tanks along the existing 10-foot right-of-way along the eastern and northern parts of the project site. New domestic water and fire water lines would be in the driveway loop and parking areas, with individual connections to each building. The fire water would connect to a flow meter in the northeast corner of the driveway loop. The project is considered an R-2 Residential Group occupancy and would have automatic fire sprinkler systems in compliance with CFC, Chapter 9.⁴²⁹ Fire flows for the 63,374 square feet of residential buildings would be at least 1,500 gallons per minute at 20 pounds per square inch residual pressure for a minimum of 2 hours as required by Coastside FPD standards.⁴³⁰ The fire supply systems meet the requirements listed in CFC, Chapter 5. Additionally, there are 31 fire hydrants located within a 1-mile buffer of the project site that could be used as additional water sources in the event of wildfire.

While the proposed development could potentially increase human-caused and electrical ignitions during construction and operation, increased water infrastructure and construction of roads (fuel breaks) would not exacerbate fire risk. Project construction does not require steep road cuts and would not be subject to landslide or soil failure that could hinder fire protection efforts or otherwise exacerbate fire risk. There would be no significant increase in fire risk from the associated utilities, and the project would have a less-than-significant impact.

⁴²⁷ SWCA, 2023b.

⁴²⁸ San Mateo County, 2021a.

⁴²⁹ SWCA, 2023b.

⁴³⁰ Coastside Fire Protection District. 2022. PLN:2022-00220 / Cypress Point Affordable Housing. Email to MP Moss Beach Associates. Email dated October 18, 2022.

Impact WF-4: Would the project 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)

The project is not located in an SRA classified as a very high FHSZ. Given the relatively flat terrain and absence of significant topographic features in the vicinity, it is not likely the topography would exacerbate wildfire risks, and it is not likely a fire would result in landslides, post-fire slope instability, or drainage and debris flow issues.

Per Section 3.4, Geology and Soils, the project site is in an area where the cliff stability level is designated as high. The site-specific geotechnical investigation concluded the potential for landslides at the project site under both static and seismic conditions is low due to the lack of evidence of historical slope instability on-site, the high shear strength of the soil, weathered bedrock underlying the site, and the apparent absence of any significant seepage on the slope faces.⁴³¹ Compliance with the 2022 CBC and the recommendations contained in the geotechnical investigation would ensure the project does not impact post-fire slope stability at the project site or in the surrounding area. Therefore, impacts would be considered less than significant.

3.12.6 Cumulative Impacts

Impact C-WF-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to wildfire? (Less Than Significant)

The project site is not located in an SRA classified as a very high FHSZ. The proposed Etheldore Apartments project is located nearby the project site (approximately 2,100 feet southeast). Etheldore Apartments is a project that includes the construction of an eight-unit, multiple-family housing development.⁴³² The Etheldore Apartments project is currently in the early planning and development stage of environmental review. No additional projects are currently planned to occur within 1 mile of the project site.

CAL FIRE reviewed preliminary project plans on October 18, 2022, and recommended incorporation of required development codes specific to access road dimensions, fire flow requirements, fire-resistant building materials, automatic sprinklers, alarm systems, vegetation management, and Knox Box access.⁴³³ The project is adding new infrastructure and would meet all CBC and CFC requirements at the project site. Fire protection personnel at Coastside FPD Station 44 are located on Stetson Street in Moss Beach one block (approximately 300 feet) from the project site. As a result, the project impact of increased wildfire risk is localized to the project site and is unlikely to contribute toward a cumulative increase in wildfire risk. Thus, the project would have a less-than-significant cumulative impact.

⁴³¹ Rockridge Geotechnical, 2022.

⁴³² San Mateo County. 2023b. Etheldore Apartments. Available at: <https://www.smcgov.org/planning/etheldore-apartments>. Accessed May 12, 2023.

⁴³³ Coastside Fire Protection District, 2022.

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CHAPTER 4. ALTERNATIVES ANALYSIS

4.1 INTRODUCTION

Section 15126.6(a) of the California Environmental Quality Act (CEQA) requires an environmental impact report (EIR) to “describe a reasonable range of alternatives to a project, or to the location of a project, which could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives.” This chapter discusses a range of alternatives to the proposed Cypress Point project, including alternative designs, and a No Project Alternative. The State CEQA Guidelines provide direction for the discussion of alternatives to the project, including the following guidance:

- “An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives.” (Section 15126.6(a))
- “Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.” (Section 15126.6(b))
- “The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison.” (Section 15126.6(d))
- “The specific alternative of “no project” shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decisionmakers to compare the impacts of approving the project with the impacts of not approving the project.” (Section 15126.6(e))
- “If the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” (Section 15126.6(e)(2))
- “The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project.” (Section 15126.6(f))
- “Only [alternative] locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.” (Section 15126.6(f)(2)(A))

Given the CEQA mandates listed above, this section: 1) describes the range of reasonable alternatives to the project, including the No Project Alternative; 2) examines and evaluates resource issue areas where significant adverse environmental effects have been identified and compares the impacts of the alternatives to those of the project; and 3) identifies the Environmentally Superior Alternative.

4.2 ALTERNATIVES SELECTION

In accordance with the State CEQA Guidelines, appropriate alternatives for EIR analysis are those that meet most of the basic project objectives and avoid or substantially lessen any of the significant environmental effects of the project. Consequently, this section reviews the objectives that were identified for the project and any significant unavoidable environmental effects.

4.2.1 Project Objectives

As described in Chapter 2, Project Description, MidPen Housing Corporation (MidPen) seeks to achieve the following objectives by undertaking the proposed project to provide affordable housing on the coastal portion of San Mateo County:

1. Provide a significant number of low-income affordable housing units in a vibrant, safe, well-designed community that respects the coastal character of the region, consistent with the San Mateo County Housing Element Adequate Site Inventory.
2. Provide affordable housing in the region at cost-effective densities that are competitive for financing.
3. Address housing needs of households, families, and workers in the Midcoast and surrounding region.
4. Provide housing for a diverse range of low-income workers and families.
5. Improve the jobs/housing balance and jobs/housing fit in the region by providing affordable dwelling units near coastal jobs.
6. Provide informal recreational opportunities for residents in the region and the general public by providing access to a trail on undeveloped portions of the project site.
7. Be consistent with the character of the surrounding neighborhood by adhering to the existing development guidelines to the extent feasible.

4.2.2 Significant Impacts Resulting from the Proposed Project

Alternatives to be considered under CEQA are those that would avoid or substantially lessen one or more of the significant environmental effects identified during evaluation of the project. For this project, all the adverse environmental impacts described in Chapter 3, Environmental Impacts Analysis, were judged to be less than significant, less than significant with mitigation, or significant and unavoidable.

The project's significant unavoidable impacts are related to the following transportation impacts:

- **Impact TR-2:** The proposed project would exceed the County vehicle miles traveled (VMT) thresholds and therefore would not be consistent with State CEQA Guidelines Section 15064.3(b), requiring implementation of MM-TR-2: Implement C/CAG TDM Checklist Measure M4. Impacts would remain significant unavoidable with mitigation.
- **Impact TR-4:** Project-related pedestrians and bicyclists would be exposed to roadway-related hazards at the State Route 1 and Carlos Street intersection due to a geometric design feature (e.g., sharp curves or dangerous intersections), requiring implementation of TR-4b: Additional Transportation Demand Management Measures. Impacts would remain significant unavoidable.

Impacts that can be mitigated to less than significant are related to the following topics: air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, and noise and vibration. Impacts of the project that can be mitigated with the incorporation of mitigation measures identified in this EIR are primarily construction-related and would likely occur in varying degrees with any development of the project site. A detailed summary of impacts and associated mitigation measures identified for the project are provided in Table 4.2-1.

Table 4.2-1. Summary of Potentially Significant and Significant Impacts with Identified Mitigation Measures

Impact	Mitigations	Level of Significance after Implementation of Mitigation	No Project Alternative	Reduced Density Alternative	South Moss Beach Alternative	EI Granada Alternative
AQ-2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	AQ-2a Implement Bay Area Air Quality Management District BMPs	Less than significant (LTS) with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation
	AQ-2b Use Low Diesel Particulate Matter Exhaust Construction Equipment	LTS with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation
BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	BIO-1: General Biological Protections	LTS with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Greater than proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation
BIO-3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	BIO-3 Implement the following BMPs to prevent erosion and sedimentation to Montara Creek	LTS with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Greater than proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation
BIO-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites?	BIO-4 Conduct Nesting Bird Surveys	LTS with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Similar to but greater than proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation
BIO-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (including the County Heritage and Significant Tree Ordinances)?	BIO-5 Tree Replacement and Maintenance Plan	LTS with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation

Cypress Point Affordable Housing Community Project Environmental Impact Report
Chapter 4 Alternatives Analysis

Impact	Mitigations	Level of Significance after Implementation of Mitigation	No Project Alternative	Reduced Density Alternative	South Moss Beach Alternative	EI Granada Alternative
CR- Initial Study Impact 2.5.b Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	CR-1 Additional Site Excavation	LTS with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation
	CR-2 Archaeological Monitoring	LTS with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation
	CR-3 Unanticipated Findings during Construction	LTS with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation
CR- Initial Study Impact 2.5.c Would the project disturb any human remains, including those interred outside of dedicated cemeteries?	CR-4 Procedures for Discovery and Treatment of Human Remains.	LTS with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation
GEO-6: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	GEO-1 Accidental Discovery of Paleontological Resources	LTS with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Similar to but greater than proposed project, LTS with Mitigation	Similar but greater than proposed project, LTS with Mitigation

Impact	Mitigations	Level of Significance after Implementation of Mitigation	No Project Alternative	Reduced Density Alternative	South Moss Beach Alternative	EI Granada Alternative
HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	HAZ-1a Preconstruction Planning and Notification	LTS with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Similar to but less than proposed project, LTS with Mitigation	Similar to but less than proposed project, LTS with Mitigation
	HAZ-1b Implement Site-Specific Health and Safety Worker Requirements	LTS with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Similar to but less than proposed project, LTS with Mitigation	Similar to but less than proposed project, LTS with Mitigation
	HAZ-1c Construction Best Management Practices	LTS with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Similar to but less than proposed project, LTS with Mitigation	Similar to but less than proposed project, LTS with Mitigation
	HAZ-1d Dust Control Measures	LTS with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Similar to but less than proposed project, LTS with Mitigation	Similar to but less than proposed project, LTS with Mitigation
	HAZ-1e Retain a Hazardous Materials Specialist	LTS with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Similar to but less than proposed project, LTS with Mitigation	Similar to but less than proposed project, LTS with Mitigation
N-1: Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	N-1 Implement Construction Noise Best Management Practices	LTS with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Greater than proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation
N-2: Would the project generate excessive groundborne vibration or groundborne noise levels?	N-2 Implement Construction Vibration Best Management Practices	LTS with Mitigation	No Impact	Similar to proposed project, LTS with Mitigation	Greater than proposed project, LTS with Mitigation	Similar to proposed project, LTS with Mitigation
TR-2: The proposed project would exceed the County VMT thresholds and therefore would not be consistent with State CEQA Guidelines Section 15064.3(b).	TR-2: Implement C/CAG TDM Checklist Measure M4	Significant and unavoidable with Mitigation (SUM)	No Impact	Similar to proposed project, SUM	Similar to proposed project, SUM	Similar to proposed project, SUM

Cypress Point Affordable Housing Community Project Environmental Impact Report
Chapter 4 Alternatives Analysis

Impact	Mitigations	Level of Significance after Implementation of Mitigation	No Project Alternative	Reduced Density Alternative	South Moss Beach Alternative	EI Granada Alternative
TR-4: Project-related pedestrians and bicyclists would be exposed to roadway-related hazards at the State Route 1 and Carlos Street intersection due to a geometric design feature (e.g., sharp curves or dangerous intersections).	TR-4b: Augment C/CAG TDM Checklist Measure M3	SUM	No Impact	Similar to proposed project, SUM	Similar to but less than proposed project, LTS	Similar to but less than proposed project, LTS
	TR-4c: Implement Additional TDM Measures	SUM	No Impact	Similar to proposed project, SUM	Similar to but less than proposed project, LTS	Similar to but less than proposed project, LTS
Impact C-TR-2: The proposed project, in combination with other past, present, and reasonably foreseeable future projects, would result in a cumulatively considerable transportation impact related to VMT and consistency with State CEQA Guidelines Section 15064.3(b). (Significant and Unavoidable with Mitigation)	C-TR-2: Implement MM-TR-2, MM-TR-3, MM-TR-4b and MM-TR-4c	SUM	No Impact	Similar to proposed project, SUM	Similar to proposed project, SUM	Similar to proposed project, SUM
Impact C-TR-3: The proposed project, in combination with other past, present, and reasonably foreseeable future projects, would result in a cumulatively considerable transportation impact related to hazards. (Significant and Unavoidable with Mitigation)	C-TR-3: Implement MM-TR-2, MM-TR-3, MM-TR-4b and MM-TR-4c.	SUM	No Impact	Similar to proposed project, SUM	Less than proposed project, LTS with Mitigation	Less than proposed project, LTS with Mitigation

4.2.3 Alternatives Development and Analysis Process

In defining the feasibility of alternatives, the State CEQA Guidelines state: “Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site.” If an alternative was found to be infeasible, as defined above, then it was dropped from further consideration in this analysis.

In addition, State CEQA Guidelines Section 15126.6 states that alternatives should “...attain most of the basic objectives of the project...”. As further explained by the California Supreme Court:

“[A]n EIR should not exclude an alternative from detailed consideration merely because it ‘would impede to some degree the attainment of the project objectives.’ But an EIR need not study in detail an alternative that is infeasible or that the lead agency has reasonably determined cannot achieve the project’s underlying fundamental purpose . . .

Although a lead agency may not give a project’s purpose an artificially narrow definition, a lead agency may structure its EIR alternative analysis around a reasonable definition of underlying purpose and need not study alternatives that cannot achieve that basic goal.” (In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings, 43 Cal.4th 1143, 1165-1166 [2008]).

CEQA also requires that the discussion of alternatives focus on alternatives to the project or its location that can avoid or substantially lessen any significant effects of the project. The key question and first step in the analysis is whether any of the project’s significant effects would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the project’s significant effects need to be considered for inclusion in the EIR (State CEQA Guidelines Section 15126[5][B][1]). An alternative site need not be considered when implementation is “remote and speculative,” such as when the alternative site is beyond the control of a project applicant.

The alternatives selected for further analysis have been evaluated against the project to provide a comparison of environmental effects and to identify the Environmentally Superior Alternative. Note that the significance of impacts associated with the project, and the determination of impacts presented in this section for comparative purposes, are based on the respective identified changes in conditions relative to the environmental baseline (as described in Chapter 3, Environmental Impacts Analysis).

The alternatives analysis includes a preliminary alternatives screening process and alternative project evaluation process, as described below.

4.2.4 Preliminary Alternatives Screening Process

The alternatives analysis begins with the screening and evaluation of a list of preliminary alternatives to determine which alternatives will be selected for further analysis in the EIR.

Each of the identified alternatives was preliminarily assessed to determine which of the alternatives met the requirements of a viable alternative under CEQA by considering whether the alternative: 1) would be feasible; 2) would avoid or substantially lessen any of the significant effects of the project; and 3) could feasibly attain most of the basic objectives of the project. Those alternatives that met these three criteria were carried forward for a more detailed review in the EIR.

Alternatives carried forward for analysis in this EIR include a reduced density alternative, two designated affordable housing sites in the LCP, and the No Project Alternative. Given that the County of San Mateo (County) is the lead agency for this project, exploration of additional alternatives that do not include affordable housing land-use designations would not meet the basic objectives of the project.

4.2.5 Alternative Project Evaluation Process

The environmental impacts of the alternatives carried forward for review in the EIR, including the No Project Alternative, were then compared against the impacts of the project for each environmental issue area discussed in Chapter 3, Environmental Impacts Analysis, of this EIR. A significance determination was made about each alternative for each issue area, and a basis for that determination has been provided. The determination of comparative impacts used the following criteria:

- **No Impact:** The significance criteria do not apply, or no impact would result.
- **Similar:** Impacts would be identical or would be of the same general extent and severity as the impacts associated with the project; therefore, the significance determination would be the same.
- **Greater:** New potentially significant impacts or a substantial increase in the severity of the impacts associated with the project would occur; therefore, the significance determination would be greater.
- **Less:** Potentially significant impacts would be avoided or a substantial reduction in the severity of the impacts associated with the project would occur; therefore, the significance determination would be reduced.

As a result of this evaluation and comparison of potentially significant environmental impacts, an Environmentally Superior Alternative has been identified.

4.3 ALTERNATIVES CONSIDERED AND REJECTED

State CEQA Guidelines Section 15126.6(c) requires that an EIR disclose potential alternatives that were considered and eliminated along with a brief explanation of the reason for elimination. Factors used to eliminate alternatives from detailed consideration include: 1) failure to meet most of the basic project objectives, 2) infeasibility, and/or 3) inability to avoid significant environmental impacts.

The following two alternatives were considered but eliminated from further analysis, as described below.

4.3.1 Development of Entire Site Alternative

Under the Development of Entire Site Alternative, the same number of housing units would be developed as under the proposed project, but rather than preserving part of the project site as open space, the entire site would be developed. The overall density of the project would be the same as the proposed project. However, instead of the residences being concentrated in one portion of the site, with the remainder of the site being left as open space, the proposed 71 units would cover the entire site, so the overall density of the developed area would be lower. The units would be developed as attached, single-family homes, with each structure containing a single home. The only open space that would remain in this alternative would be the landscaped areas within the development. The unit count, bedroom sizes, amenities (except for open space), and parking would be the same as under the proposed project.

The Development of Entire Site Alternative was considered and rejected because while it would meet nearly all the project sponsor's objectives, excluding the objective for providing recreational opportunities on-site by preserving open space, it would result in technical challenges for developing the steep northern

slopes of the project site, likely resulting in challenges in achieving compliance with the American with Disabilities Act. Further development on steep slope areas would increase the area of land disturbance and would not be consistent with Local Coastal Program (LCP) Policy 9.18 which prohibits development on slopes of greater than 30 percent unless no alternative exists. This alternative would not avoid the significant and unavoidable VMT impact because of location and would not avoid the pedestrian safety impact because of existing conditions near the site. Therefore, the Development of Entire Site Alternative is considered and rejected from further analysis in this EIR.

4.3.2 Maximum Density Development Alternative

This alternative would result in development of 148 units, consistent with the maximum number of units that would be allowed under the prior Planned Unit Development District No. 124 (PUD-124) zoning. Under the Maximum Density Development Alternative, the project parcel would be developed as a mixture of market-rate and affordable condominium units, in accordance with the prior PUD-124 zoning. Because the existing zoning for the parcel was developed and approved for the proposed Farallon Vista housing project, this option/alternative assumes that the parcel would be developed according to those entitlements, which remain in place and are the current zoning for the project site.⁴³⁴

This alternative would result in the construction of 148 housing units on the parcel, including 52 affordable units and 96 market-rate units. Of the 52 affordable units, 31 would be designated as low-income and 21 would be designated as moderate-income. The market-rate units would include 60 townhouses with two bedrooms and two and a half bathrooms and 36 single-level units with two bedrooms and two bathrooms. The low- and moderate-income units would all be single-level units with two bedrooms and one bathroom. This development would house approximately 444 residents. The Maximum Density Development Alternative would be developed with a density of 13.4 units per acre. This development would be consistent with the General Plan designation of Medium-High Density Residential but would conflict with the current Planned Unit Development District 140 (PUD-140) zoning.

Site amenities include:

- Six tot lots, three barbecue areas, decks, gazebos, an exercise course/jogging trail, and some, but comparatively limited, open space areas compared to the proposed project.
- In total, 302 parking spaces would be provided, including 244 covered carports and 58 uncovered spaces.
- Approximately 46% of the parcel would be developed, and 54% would remain open space.
- This alternative would require development on the steep portions of the project site, which may conflict with the Americans with Disabilities Act and potentially LCP Policy 9.18, which prohibits development on slopes of greater than 30%.
- The LCP includes policies that reserve water and wastewater treatment capacity for affordable housing, this alternative would also include 96 market-rate housing units, and the availability of water for those units is not reserved. Information is not available at this time regarding whether sufficient water and sewer capacity is available for this alternative.

⁴³⁴ On April 21, 2021, a lawsuit was filed challenging the Coastal Commission staff report under CEQA, the LCP amendment under the Coastal Act, and the hearing process under the Code of Civil Procedure Section 1094.5(b). The lawsuit was dismissed entirely on April 21, 2023. Evidence supporting the challenge was not provided, and the court found that the commission complied with CEQA and the Coastal Act and did not deprive the petitioner of a fair hearing. (*Superior Court of California, 2023. County of San Francisco. Order Denying Verified Petition for Writ of Mandate Case No. CPF-21-517430. April 21, 2023.*)

In total, the Maximum Density Development would create only 52 affordable units, which is fewer than the proposed project, which would not meet County Regional Housing Needs Allocation goals and would only partially meet Objective 1. All other project objectives would be only partially met. Specifically, this alternative requires development of most of the project parcel and would not offer public open space and therefore, thus would not meet Objective 6. Therefore, the Maximum Density Development Alternative is considered and rejected from further analysis in this EIR.

4.4 ALTERNATIVES IMPACTS ANALYSIS

The following alternatives (i.e., No Project Alternative, South Moss Beach Alternative, and El Granada Alternative) have been selected for further analysis and have been evaluated against the project to provide a comparison of environmental effects and to identify the Environmentally Superior Alternative. Note that the significance of impacts associated with the project, and the determination of impacts presented in this section for comparative purposes, are based on the respective identified changes in conditions relative to the environmental baseline (as described in Chapter 3, Environmental Impacts Analysis). MidPen does not currently own any properties in the greater vicinity of the project site, including either of the off-site alternative locations. The analysis in this chapter assumes that MidPen would be able to obtain ownership for the intent of constructing affordable housing.

4.4.1 Alternative 1: No Project Alternative

Section 15126.6(e) of the State CEQA Guidelines requires analysis of the No Project Alternative. In accordance with the State CEQA Guidelines, the No Project Alternative for a development project on an identifiable property consists of the circumstance under which the project does not proceed as provided by Section 15126.6(e)(3)(B) of the State CEQA Guidelines. Section 15126.6(e)(3)(B) provides that, “In certain instances, the no project alternative means ‘no build’ wherein the existing environmental setting is maintained.” As stated in Section 15126.6(e)(2), “The ‘no project’ analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.”

In the No Project Alternative, implementation of the project would not occur, and any future buildout of the project site would need to be consistent with the allowable uses and density under existing PUD zoning. The project would not meet any of the objectives, as noted below in Table 4.4-1. Under the No Project Alternative, the project site would remain undeveloped. Current safety and transportation-related constraints at the project site and on the immediate road network would remain unchanged. Under the existing General Plan zoning of Medium-High Density Residential, the project site could ultimately accommodate the development of up to 191 residential units (8.8–17.4 units per acre); any project would be subject to a similar environmental review as the proposed project.

Table 4.4-1. Attainment of Project Objectives: Alternative 1, No Project Alternative

Project Objective	Alternative’s Consistency with Project Objective
1. Provide a significant number of low-income affordable housing units in a vibrant, safe, well-designed community that respects the coastal character of the region, consistent with the San Mateo County Housing Element Adequate Site Inventory.	No. This alternative assumes the site would remain in its current condition.
2. Provide affordable housing in the region at cost-effective densities that are competitive for financing.	No. This alternative assumes the site would remain in its current condition.

Project Objective	Alternative's Consistency with Project Objective
3. Address housing needs of households, families, and workers in the Midcoast and surrounding region.	No. This alternative assumes the site would remain in its current condition.
4. Provide housing for a diverse range of low-income workers and families.	No. This alternative assumes the site would remain in its current condition.
5. Improve the jobs/housing balance and jobs/housing fit in the region by providing affordable dwelling units near coastal jobs.	No. This alternative assumes the site would remain in its current condition.
6. Provide informal recreational opportunities for residents in the region and the general public by providing access to a trail on undeveloped portions of the site.	Partial. This alternative assumes the site would remain in its current condition.
7. Be consistent with the character of the surrounding neighborhood by adhering to the existing development guidelines to the extent feasible.	No. This alternative assumes the site would remain in its current condition.

4.4.1.1 Comparison of Significant Effects of Alternative 1: No Project Alternative to the Project

This analysis assumes that the existing on-site foundations would remain and the existing physical conditions, as described in detail for each environmental topic in Chapter 3, Environmental Impacts Analysis, would remain the same.

If the No Project Alternative were implemented, none of the impacts associated with the Proposed Project, as described in Chapter 3, would occur. Additionally, none of the sponsor-initiated sustainability measures and on-site and off-site developments would occur, including the proposed Carlos Street intersection improvements. The No Project Alternative would not preclude future development of the project site with a range of land uses that are principally permitted at the project site; any future project would be subject to similar environmental review as the proposed project. Development and growth would continue within the vicinity of the project site as nearby projects are approved, constructed, and occupied. These projects would contribute to cumulative impacts in the vicinity, but under the No Project Alternative, the existing land-use activity on the project site would continue and would therefore not contribute to these cumulative impacts beyond existing levels.

AESTHETICS

In the No Project Alternative, the project would not be implemented, and development of the project site would not occur. Like the project, this alternative would not have a substantial effect on a scenic vista or damage scenic resources within a State Scenic Highway, as no such resources have been identified within the vicinity of the project site and no development would occur on-site. The project site would remain in its undeveloped condition and no change to the existing visual character of the project site and surroundings would occur. This alternative would also avoid adding new sources of light and glare on the project site. Therefore, impacts of the No Project Alternative related to aesthetics would have *no impact* in comparison to the project.

AIR QUALITY

This alternative would not result in an increase in criteria pollutant emissions or odors because no construction would occur, and no new operational sources would be created. This alternative would avoid the project's less-than-significant impact related to exposing nearby residential development to air quality impacts from the use of off-road diesel equipment during project construction. All air quality and odor impacts associated with the project would be avoided under this alternative.

Therefore, impacts of the No Project Alternative related to air quality emissions would have *no impact* in comparison to the project.

BIOLOGICAL RESOURCES

In the No Project Alternative, no grading or construction activities would take place on the project site and all existing vegetation and mature trees would remain undisturbed. This alternative would avoid potentially significant direct and indirect impacts related to construction activities to special-status wildlife species identified in Section 3.3, Biological Resources, including the California red-legged frog (*Rana draytonii*), nesting migratory birds and raptors, or the Choris' popcorn flower (*Plagiobothrys chorisianus* var. *chorisianus*). All existing trees would remain on the project site and support the local policies and ordinances protecting biological resources, specifically considerations under the County's Significant Tree Ordinance.

As discussed in the Initial Study, the project site is located within a habitat conservation plan (HCP) specific to Pacific Gas and Electric Company's (PG&E's) Bay Area Operations and Maintenance (O&M) activities.⁴³⁵ Because Alternative 1 does not include construction activities, impacts would be *less* in comparison to the proposed project.

Therefore, impacts of the No Project Alternative related to biological resources would have *no impact* in comparison to the project.

GEOLOGY AND SOILS

The No Project Alternative would not introduce new habitable buildings and structures to the project site that would be susceptible to risk involving seismic-related or other ground-failure events. This alternative would not require any ground-disturbing activities that could increase erosion and loss of topsoil at the project site. In addition, this alternative would not result in impacts to paleontological resources because no earthwork activities would occur that would cut into the geologic units within which fossils are buried and physically destroy the fossil remains. Compliance with the California Building Code (CBC) and implementation of mitigation identified for the project would not be required to reduce the significance of potential impacts related to geology and soils.

As discussed in the Initial Study, there would be no impacts related to septic tanks. Additionally, Alternative 1 does not include construction activities nor use of septic tanks, there would be *no impacts* and *similar* in comparison to the project.

Therefore, impacts of the No Project Alternative related to geology and soils impacts would have *no impact* in comparison to the project.

GREENHOUSE GAS AND CLIMATE CHANGE

The No Project Alternative would not generate greenhouse gas (GHG) emissions as no construction would occur, and no permanent sources of emissions would be established. Therefore, impacts of the No Project Alternative related to GHG emissions and climate change would be *no impact* in comparison to the project.

⁴³⁵ USFWS. 2017. Habitat Conservation Plan for Pacific Gas and Electric Company's San Francisco Bay Area Operations and Maintenance. 82 FR 15063 no. 2017-05856. Available at: <https://www.federalregister.gov/documents/2017/03/24/2017-05856/habitat-conservation-plan-for-pacific-gas-and-electric-companys-san-francisco-bay-area-operations>. Accessed January 31, 2023.

HAZARDS AND HAZARDOUS MATERIALS

Under the No Project Alternative, no physical changes to the project site would occur. The utility extensions proposed under the project would not occur. As such, the use of construction-related hazardous materials during project construction would not occur and compliance with existing policies to reduce the risk related to the use of hazardous materials would not be required. Ground disturbance would not occur, which would eliminate the potential to release lead-impacted soil or other soil contaminants, and mitigation would not be required to reduce the significance of these potential impacts.

As discussed in the initial study, the project site is not located within a quarter mile of a school nor within an airport land-use zone. Therefore, impacts of the No Project Alternative related to hazards and hazardous materials impacts would be *no impact* in comparison to the proposed project.

HYDROLOGY AND WATER QUALITY

Under the No Project Alternative, development of the project site would not occur. As a result, no physical changes to the existing drainage conditions at the site would occur and no new impervious surfaces would be introduced, nor would the existing on-site concrete slabs be removed. As such, the potential for substantial increases in soil erosion and sediment transport affecting water quality from runoff during construction and project operation would not occur. In addition, no new source pollutants or non-stormwater discharges that could adversely impact water quality would occur. Compliance with existing state water quality protection regulations as well as the project-specific mitigation measures would not be required to reduce the significance of potential impacts related to hydrology and water quality.

Therefore, impacts of the No Project Alternative related to hydrology and water quality would be *no impact* in comparison to the proposed project.

LAND USE AND PLANNING

Similar to the project, the No Project Alternative would not result in new features that could physically divide an established community. However, since no physical changes to the project site would occur, this alternative would be inconsistent with the LCP, which would not match land-use zoning.

Overall, impacts of the No Project Alternative related to land use and planning would be *similar* in comparison to the project.

NOISE

The No Project Alternative would not generate noise as no construction would occur, and no permanent sources of noise would be established. As stated in the Initial Study, the project site is not located in an airport zone and would not pose an impact to people residing on-site. Therefore, impacts of the No Project Alternative related to noise would be *no impact* in comparison to the proposed project.

TRANSPORTATION

Under the No Project Alternative, no new development would be introduced on the project site and no new traffic or changes to the local roadway network would be introduced. Traffic conditions would remain as they are under existing conditions, and current safety and transportation-related constraints at the project site and on the immediate road network would remain unchanged. This alternative would avoid the project's significant unavoidable impact related to VMT, traffic hazards at Carlos Street, and pedestrian safety concerns associated with crossing of State Route 1. Because the No Project Alternative

would not result in any significant transportation impacts, impacts related to transportation would be *less* in comparison to impacts associated with the project.

UTILITIES AND SERVICE SYSTEMS

Under the No Project Alternative, no new development would be introduced on the project site and there would be no need for the construction of new and expanded utility infrastructure to serve the project, including potable water, wastewater, stormwater, and other utilities, such as natural gas, electricity, telephone, and cable/data service. This alternative would not require infrastructure improvements beyond the boundary of the project site, as proposed by the project, and therefore impacts associated with construction and installment of utility infrastructure both on- and off-site would not occur.

Overall, impacts of the No Project Alternative related to utilities and service systems would be *no impact* in comparison to impacts associated with the project.

WILDFIRE

In the No Project Alternative, no tree removal or construction activities would take place on the project site and no residents with the potential to start fires would be introduced to the project site. All existing vegetation and mature trees would remain undisturbed. This alternative would not include the development of defensible space and would not slow response time in the case of an emergency.

Therefore, impacts of the No Project Alternative related to wildfires would be *similar* in comparison to the project.

INITIAL STUDY TOPICS

The County of San Mateo Planning and Building Department (Planning Department) distributed a Notice of Preparation (NOP) of an EIR and Notice of Public Scoping Meeting on December 9, 2022, announcing its intent to prepare an EIR, including an initial study, and to solicit comments from the public about the scope of this EIR (the NOP is presented in Appendix A). The Initial Study (Appendix B) determined that project-specific and cumulative impacts for certain resource topics would not require additional analysis in the EIR because the proposed project or project variants would have no impact, less-than-significant impact, or less-than-significant with mitigation incorporated impacts.

- Agriculture and Forestry Resources: The proposed project site contains no land that the California Department of Conservation (CDOC) designates as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.^{436,437} Impacts would be *similar* to the proposed project.
- Cultural Resources: Because Alternative 1 does not include construction activities, Mitigation Measure (MM)-CR-1 through MM-CR-4 would not apply. Impacts would be *decreased* in comparison to the project.
- Energy: Because Alternative 1 does not include construction or operation activities that could use energy, impacts would be *decreased* in comparison to the project.
- Mineral Resources: Alternative 1 does not include construction activities; therefore, impacts would be *less* in comparison to the project.

⁴³⁶ California Department of Conservation (CDOC). 2019. Important Farmland Categories. Available at: <https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx>. Accessed January 20, 2023.

⁴³⁷ CDOC. 2012. DOC Maps: Agriculture. Available at: <https://maps.conservation.ca.gov/agriculture/>. Accessed January 20, 2023.

- Population and Housing: Alternative 1 does not include construction activities; therefore, impacts would be *less* in comparison to the project.
- Public Services: Because Alternative 1 does not include construction resulting in housing, impacts would be *less* in comparison to the project.
- Recreation: Because Alternative 1 does not include construction resulting in housing, impacts would be *less* in comparison to the project.
- Tribal Cultural Resources: Because Alternative 1 does not include construction activities, MM-CR-1 through MM-CR-4 would not apply. Impacts would be *less* in comparison to the project.

Alternative 1 would result in no project development. As a result, the construction and operational impacts for each of the environmental topics noted in Appendix B: Initial Study, there would be no impacts in comparison to the proposed project.

4.4.2 Alternative 2: Reduced Residential Units

Under Alternative 2: Reduced Residential Units, the project site would be developed with roughly half the number of units proposed for the Cypress Point project, totaling approximately 31 units. This number represents the number of low-income units under the existing zoning for both the LCP and General Plan.⁴³⁸ All units would be designed for low-income renters, except for the manager's unit. The design would be similar to the project but result in smaller, single-story buildings. The overall area of disturbance would be similar to the proposed project.

The Reduced Residential Units Alternative would result in an overall density of 2.8 units per acre, and would include the following:

- In total, 31 apartment units would cover a similar portion of the project site as under the proposed project, including seven units with one bedroom, 16 units with two bedrooms, and eight units with three bedrooms, providing housing for approximately 93 total residents. All units would be designed for low-income renters, except for the manager's unit.
- In total, 71 parking spaces would be provided.
- Similar amenities and landscaping as the proposed project would be provided, a similar level of undeveloped open space would remain undisturbed compared to the proposed project.
- The existing LCP and General Plan land-use designations would be amended to allow for lower-density development.
- Steep portions of the project site would be avoided, consistent with state and local policies. This is similar to the proposed project.

The Reduced Residential Units Alternative would achieve some of the project objectives (Table 4.4-2). This alternative would only create 30 units of affordable housing, and a manager's unit, which would only partially meet Objectives 1 through 4, and would not meet County Regional Housing Needs Allocation goals. The alternative would partially meet County, State, or Proponent's goals.

⁴³⁸ County of San Mateo. 2023. San Mateo County Housing Element Update 2023-2031. Available at: <https://www.smcgov.org/planning/san-mateo-county-housing-element-update-2023-2031>. Accessed June 2023.

Table 4.4-2. Attainment of Project Objectives: Alternative 2, Reduced Residential Units Alternative

Project Objective	Alternative's Consistency with Project Objective
1. Provide a significant number of low-income affordable housing units in a vibrant, safe, well-designed community that respects the coastal character of the region, consistent with the San Mateo County Housing Element Adequate Site Inventory.	Partial. The project site would provide approximately 31 units for approximately 93 residents. The site is located in a design review district and Coastal Zone.
2. Provide affordable housing in the region at cost-effective densities that are competitive for financing.	Partial. The alternative would provide housing in the Midcoast area and would serve the daily needs of the new residents and the surrounding community.
3. Address housing needs of households, families, and workers in the Midcoast and surrounding region.	Partial. The alternative would provide housing in the Midcoast area and would serve the daily needs of the new residents and the surrounding community.
4. Provide housing for a diverse range of low-income workers and families.	Partial. The housing would contribute to meeting the needs set forth in the Regional Housing Needs Allocation.
5. Improve the jobs/housing balance and jobs/housing fit in the region by providing affordable dwelling units near coastal jobs.	Yes. The alternative would provide housing in the Midcoast area and would serve the daily needs of the new residents and the surrounding community.
6. Provide informal recreational opportunities for residents in the region and the general public by providing access to a trail on undeveloped portions of the site.	Partial. Approximately half of the project site would remain open space. Although a trail is not located on-site, it would provide open space accessible to the general public.
7. Be consistent with the character of the surrounding neighborhood by adhering to the existing development guidelines to the extent feasible.	Partial. The alternative would represent a lower density than the surrounding neighborhood. Located in a design review district and Coastal Zone. The County General Plan and associated Municipal Code provide regulations, development standards, and design requirements for zoning districts (e.g., building setbacks, height restrictions, landscape plans, architectural review plans) would apply and protect visual resources.

4.4.2.1 Comparison of Significant Effects of Alternative 2: Reduced Residential Units Alternative to Proposed Project

Under Alternative 2, the buildout of the project site would occur and include development of affordable housing for fewer local residents compared to the proposed project. Development of the project site would require grading and ground-disturbing activities.

Impacts under this alternative would be similar to impacts associated with the project, as the alternative would disturb a similar area as the proposed project, and the significant unavoidable impacts would remain. Alternative 2 would partially meet project objectives.

AESTHETICS

Under Alternative 2, buildout of the project site would include construction of fewer new affordable housing units allowed by the development standards set forth in the County Code and LCP. Alternative 2 would allow for development at a lesser scale (31 units). The alternative would result in a change in the existing visual character of the site from undeveloped to developed with buildings throughout the site. Compared to the proposed project, the development density would appear less dense. Similar to the proposed project, this alternative would also include removal of existing vegetation on-site to accommodate development. Inhabitants of the surrounding residential land uses as well as motorists, cyclists, and pedestrians traveling along public roadways would notice this visual change; however, like the project, this alternative would not have a substantial effect on a scenic vista or damage scenic resources within a State Scenic Highway, as no such resources have been identified within the vicinity of the project site. Development under this alternative would be required to adhere to the same guidance and

requirements set forth in the County Code and LCP for design review, landscape standards, and lighting and glare requirements as the project.

Therefore, impacts of Alternative 2 related to aesthetics would be *similar but slightly decreased* in comparison to impacts associated with the project.

AIR QUALITY

Similar to the proposed project, implementation of this alternative would result in an increase in criteria pollutant emissions because construction activities would occur, and new operational sources would be created. Construction activities would result in a short-term increase in air pollutant emissions generated by construction equipment, vehicle use, and ground-disturbing activities. As identified for the project, this alternative would also be required to implement mitigation to reduce construction-related air pollutant emissions. This alternative would be similar to the project's less-than-significant impact related to exposing nearby residential development to toxic air contaminants from the use of off-road diesel equipment, since construction activities would occur within 1,000 feet of nearby sensitive receptors.

All other air quality and odor impacts associated with this alternative would be *similar* to the project. Mitigation Measures MM-AQ-2a and MM-AQ-2b would be applicable under this alternative.

BIOLOGICAL RESOURCES

Alternative 2 would result in less ground disturbance, requiring less grading and ground-disturbing activities necessary to prepare the site for development. As such, Alternative 2 would have a slightly lower potential than the project to result in direct and indirect impacts related to construction activities to special-status wildlife species identified in Section 3.3, Biological Resources, including the California red-legged frog, nesting migratory birds and raptors, or the Choris' popcorn flower. Like the project, this alternative would also involve the removal of existing trees on-site.

The project site is within an HCP specific to PG&E's Bay Area O&M activities. The U.S. Fish and Wildlife Service (USFWS) has issued PG&E an Endangered Species Act Section 10(a)(1)(B) incidental take permit for the company's Bay Area O&M HCP. This HCP is only designed to cover PG&E's activities; the HCP includes strategies to avoid, minimize, and offset potential direct, indirect, and cumulative effects of PG&E's operations, maintenance, and minor new construction activities on 32 species federally listed as threatened or endangered. Impacts on HCPs would be *similar* in comparison to the proposed project.

Therefore, the impacts of Alternative 2 related to biological resources would be *similar* in comparison to impacts associated with the project. Mitigation Measures MM-BIO-1 through MM-BIO-5 would be applicable under this alternative.

GEOLOGY AND SOILS

Alternative 2 would result in less grading and ground-disturbing activities necessary to prepare the site for development. Alternative 2 would include the development of new habitable buildings and structures and would have the same potential for seismic-related hazards, including fault rupture, ground shaking, liquefaction, and landslide, and the potential for other ground-failure events. This alternative would be required to implement mitigation and adhere to CBC and other applicable engineering standards to reduce potential impacts related to seismic and other ground-failure events. Under Alternative 2, ground-disturbance impacts are *similar* because there would be a similar area of disturbance and similar potential loss of topsoil during construction. This alternative would be required to comply with a State Water Resources Control Board (SWRCB) General Construction Permit. In addition, this alternative would have

the same potential to disturb paleontological resources if present within the proposed area of disturbance and would be required to implement mitigation to reduce potential disturbance to paleontological resources during project construction.

Because Alternative 2 does not include the use of septic tanks, there would be no impact regarding septic tanks, *similar* to the proposed project.

Impacts of Alternative 2 related to geology and soils impacts would be *similar* in comparison to impacts associated with the project. Mitigation Measure MM-GEO-1 would be applicable under this alternative.

GREENHOUSE GAS AND CLIMATE CHANGE

Alternative 2 would require the use of equipment and vehicles that would generate short-term GHG emissions. However, given that the scale of this alternative is similar but slightly less than the project, it would not generate GHG emissions above established Bay Area Air Quality Management District (BAAQMD) thresholds. Long-term GHG emissions would be generated by vehicle trips created by the project and operational energy use. This alternative includes construction equipment use at a similar scale to the proposed project, and would likely not exceed the operational GHG emissions thresholds, resulting in similar impacts as the project. Therefore, impacts of Alternative 2 related to air quality and GHG emissions would be *similar* in comparison to impacts associated with the project.

HAZARDS AND HAZARDOUS MATERIALS

Alternative 2 would result in development in a manner consistent with the project, requiring grading and ground-disturbing activities necessary to prepare the site for development. This would require the use of construction-related hazardous materials (e.g., fuels, gasoline, solvents, oils, paints) and would be required to comply with state and local regulations to reduce associated hazards. Alternative 2 would result in a *similar* impact regarding the threat of encountering lead-impacted soils during construction, and mitigation related to hazardous materials exposure and transport during project development would be required.

Alternative 2 is not located within 0.25 mile of any schools, like the project. There would be *no impact* related to schools.

Therefore, Alternative 2 would be *similar* in comparison to the project, and Mitigation Measures MM-HAZ-1a through MM-HAZ-1e would be applicable under this alternative.

HYDROLOGY AND WATER QUALITY

Alternative 2 would result in development of 31 units and would result in the creation of similar impervious surfaces. The proposed increase of impervious surface over existing conditions would have the potential to increase the pollutants and non-stormwater discharges that could adversely impact water quality. This alternative has a similar potential, like the project for substantial increases in soil erosion and sediment transport, which have the potential to affect water quality from runoff, particularly during construction phases that include excavation, grading, and other earthwork. Alternative 2 would be subject to the same mitigation measures as the project as well as all applicable state and local water quality protection requirements, which is also consistent with the project.

Therefore, impacts of Alternative 2 related to hydrology and water quality would be *similar* in comparison to impacts associated with the project.

LAND USE AND PLANNING

Alternative 2 would not result in new features that could physically divide an established community, consistent with the project. Under this alternative, implementation of the project would require approvals including a General Plan Amendment from Medium-High Density Residential to Medium Density Residential Use. The Medium-High Density Residential designation allows for development at densities between 8.8 and 17.4 housing units per acre.⁴³⁹ In the LCP, this site is designated as a priority development site for affordable housing.⁴⁴⁰ The current zoning of the site would not allow for development of the project as proposed and would require rezoning the PUD designation to allow for lower-density development. This alternative site would require a General Plan Amendment and rezoning for consistency to match the required PUD zoning.

Therefore, the impacts of Alternative 2 related to land use and planning would be *greater* in comparison to impacts associated with the project.

NOISE

Alternative 2 would result in development of 31 units, resulting in the generation of similar short-term, intermittent increases in ambient noise during the construction phase from initial site improvements, vehicle and equipment movement, and future construction of residential and commercial land uses. Like the project, construction activities in this alternative would have the potential to result in temporary exceedances of the maximum acceptable noise levels for residential land uses set forth in the County Code. In addition, this alternative would create similar long-term, permanent increases in ambient noise levels, primarily associated with potential increases in vehicle traffic and on-site activities. Alternative 2 would be required to implement the same mitigation measures as the project to reduce less-than-significant construction-related noise and vibration impacts.

Alternative 2 site would not expose people residing or working on this site to excessive noise levels. Impacts would be *similar* in comparison to the proposed project.

Therefore, the impacts of Alternative 2 related to noise would be *similar* in comparison to impacts associated with the project. Mitigation Measures MM-N-1 and MM-N-2 would be applicable under this alternative.

TRANSPORTATION

Alternative 2 would result in development of 31 units. Primary access to and from S.R. 1 would be via Carlos Street and California Avenue as with the proposed project. Alternative 2 would be developed under a Local Preference Agreement with a total of 31 residential units; the same agreement as the proposed project but fewer residential units. The project sponsor would also be required to implement the same set of required C/CAG Transportation Demand Management (TDM) measures identified for the proposed project (see Chapter 2, Project Description) to promote active transportation and limit use of single-occupancy vehicles for discretionary trips.

Alternative 2 would have less residential development than the proposed project, therefore it would generate less vehicular traffic. Under Alternative 2, consistency-related issues with transportation-related plans, programs, policies, or other ordinances such as Connect the Coastside that control the safety and effectiveness of the transportation system would be *similar* to those of the proposed project because they would be located on the site, use the same local transportation network, and have similar traffic-

⁴³⁹ County of San Mateo, 1986.

⁴⁴⁰ San Mateo County, 2013.

generating potentials (although somewhat reduced). Alternative 2 would not conflict with or result in an adverse effect on the circulation system, including transit, roadway, bicycle and pedestrian facilities, and parking.

Under Alternative 2, VMT-related impacts would be *similar* to those of the proposed project because of the location of the project and the countywide per capita VMT threshold for home-based VMT. Although eligible for project screening under current County guidance as an urban infill affordable housing project, a detailed VMT analysis would show that Alternative 2 would generate home-based VMT in excess of the County's threshold and that VMT reduction efforts would not reduce or eliminate the significant and unavoidable impact. As with the proposed project, Alternative 2 would conflict with CEQA Guidelines 15064.3(b) and the impact would be significant and unavoidable, *similar* to the proposed project.

Under Alternative 2, traffic hazard and pedestrian safety concerns related to Carlos Steet would remain significant and unavoidable. Project-related traffic would use Carlos Street to access S.R. 1 where the road geometrics and line-of-sight issues are known safety hazards. Future residents would need to cross S.R. 1 to access the closest bus stop for southbound travel, where line-of-sight concerns are a known safety hazard. Therefore, impacts of Alternative 2 related to traffic hazards and pedestrian and bicyclist safety would be significant and unavoidable, *similar* to the proposed project even with implementation of Mitigation Measure TR-3 (Temporary Closure of Carlos Street at State Route 1) to address hazards for drivers, and Mitigation Measure TR-4-c (Additional Transportation Demand Management Measures) to improve the local sidewalk, bicycle, and transit stop infrastructure to the extent feasible.

Under Alternative 2, emergency access impacts would be considered less than significant and *similar* to those of the proposed project.

Overall, the impacts of Alternative 2 related to transportation would be *similar* and considered significant and unavoidable in comparison to impacts associated with the proposed project.

Mitigation Measures MM-TR-2 through C-TR-3 would be applicable under this alternative.

UTILITIES AND SERVICE SYSTEMS

Alternative 2 would result in development of 31 housing units, resulting in the need for the construction of new and expanded infrastructure improvements on-site. The project would result in an increased demand for water over existing site conditions and would result in increased wastewater and solid waste generation rates over existing conditions, resulting in *similar but slightly decreased* impacts to the proposed project.

Overall, the impacts of Alternative 2 related to utilities and service systems would be *similar but slightly decreased* in comparison to impacts associated with the proposed project.

WILDFIRE

Alternative 2 would result in construction of 31 units, resulting in approximately 93 new residents on the project site. Vegetation would be cleared, and defensible space would be implemented. Development would occur on the same site as the proposed project; however, there would be less residents on-site that would need to evacuate in an emergency. The Alternative site is not in or adjacent to a very high fire hazard severity zone.⁴⁴¹

⁴⁴¹ Association of Bay Area Governments, 2020.

Overall, the impacts of Alternative 2 related to wildfires would be *decreased* in comparison to the proposed project.

INITIAL STUDY TOPICS

The Planning Department distributed an NOP of an EIR and Notice of Public Scoping Meeting on December 9, 2022, announcing its intent to prepare an EIR, including an initial study, and to solicit comments from the public about the scope of this EIR (the NOP is presented in Appendix A). The initial study (see Appendix B) determined that project-specific and cumulative impacts for certain resource topics would not require additional analysis in the EIR because the proposed project or project variants would have no impact, less-than-significant impact, or less-than-significant with mitigation incorporated impacts. Additional analysis is not required for the following topics:

- Agriculture and Forestry Resources: The Alternative 2 site contains no land that the CDOC designates as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.^{442, 443} Impacts would be *similar* to the proposed project.
- Cultural Resources: The Alternative 2 site is on the same site as the proposed project. The site is sensitive and MM-CR-1 through MM-CR-4 would apply. Impacts would be *similar* in comparison to the project.
- Energy: All energy consumed would not be considered wasteful or inefficient. The project would not conflict with any renewable energy plans. Impacts would be *similar but slightly decreased* in comparison to the proposed project.
- Mineral Resources: The Alternative 2 site is on the same site as the proposed project. The project is not within an area designated by the California Surface Mining and Reclamation Act Mineral Land Classification as a Mineral Resource Zone-2, which indicates the existence of a deposit that meets certain criteria for value and marketability.⁴⁴⁴ Impacts would be *similar* in comparison to the proposed project.
- Population and Housing: The project proposes 31 units for approximately 93 residents. The Alternative 2 site is on the same site as the proposed project and would not displace any people during construction. Impacts would be *similar* in comparison to the proposed project.
- Public Services: The Alternative 2 site is on the same site as the proposed project. The project proposes 31 units for approximately 93 residents. The Alternative 2 site would increase demand for public services during construction and operation. Impacts would be *similar* in comparison to the proposed project.
- Recreation: The Alternative 2 site is on the same site as the proposed project. The project proposes 31 units for approximately 93 residents. The Alternative 2 site would increase demand for public services during construction and operation. Impacts would be *similar* in comparison to the proposed project.
- Tribal Cultural Resources: As noted above under Cultural Resources, the Alternative 2 site is on the same site as the proposed project. The site is sensitive and MM-CR-1 through MM-CR-4 would apply. Impacts would be *similar* in comparison to the project.

⁴⁴² CDOC, 2019.

⁴⁴³ CDOC, 2012.

⁴⁴⁴ CDOC, 1996.

Alternative 2 would develop 31 affordable housing units for approximately 93 residents, resulting in similar construction and operational impacts for each of the environmental topics. As noted in Appendix B, Initial Study (discussed above), impacts would be similar to those of the proposed project.

4.4.3 Alternative 3: South Moss Beach Site

Alternative 3: South Moss Beach Site is a 12.5-acre parcel located at 1181 Etheldore Street in South Moss Beach (Assessor’s Parcel Number [APN] 037-320-270), approximately 4,500 feet southeast of the proposed project site (Figure 4.2-1). This site is designated for affordable housing in the San Mateo County Midcoast LCP. This property is owned by a private individual. This alternative is zoned R-3-A High Density Affordable Housing and Coastal Zone (, R-3-A/S-5/ DR/CZ).

Approximately half of this site has a zoning district associated with the Half Moon Bay Airport Safety Zone overlay zoning district, which limits development to one unit per 2 acres. With this overlay, three units could be constructed on this half of the site. The remaining half of the South Moss Beach site outside of the airport safety zone overlay zoning district could be developed at the same density as the proposed project, which would accommodate approximately 63,374 square feet of residential housing configured within 71 residential units. The portion of the site in the airport district could remain as open space to meet project objectives, no housing would be built on this portion of the project site due to safety hazards. However, there is a notable slope that could possibly exceed 30% on the portion of the site that is not covered by the airport safety zone overlay zoning district and which would necessitate excessive grading near a wetland area.

While the project site has environmental constraints, Alternative 3 meets most of the project objectives and would lessen the significant transportation impact related to pedestrian safety (Table 4.4-3).

Table 4.4-3. Attainment of Project Objectives: Alternative 3, South Moss Beach Site

Project Objective	Alternative’s Consistency with Project Objective
1. Provide a significant number of low-income affordable housing units in a vibrant, safe, well-designed community that respects the coastal character of the region, consistent with the San Mateo County Housing Element Adequate Site Inventory.	Yes. The project site would provide approximately 71 units for approximately 213 residents. The site is located in a design review district and Coastal Zone.
2. Provide affordable housing in the region at cost-effective densities that are competitive for financing.	Yes. The alternative would provide housing in the Midcoast area and would serve the daily needs of the new residents and the surrounding community.
3. Address housing needs of households, families, and workers in the Midcoast and surrounding region.	Yes. The alternative would provide housing in the Midcoast area and would serve the daily needs of the new residents and the surrounding community.
4. Provide housing for a diverse range of low-income workers and families.	Yes. The housing would contribute to meeting the needs set forth in the Regional Housing Needs Allocation.
5. Improve the jobs/housing balance and jobs/housing fit in the region by providing affordable dwelling units near coastal jobs.	Yes. The alternative would provide housing in the Midcoast area and would serve the daily needs of the new residents and the surrounding community.
6. Provide informal recreational opportunities for residents in the region and the general public by providing access to a trail on undeveloped portions of the site.	Partial. Approximately half the project site would remain open space. While a trail is not located on-site, it would provide open space accessible to the general public.
7. Be consistent with the character of the surrounding neighborhood by adhering to the existing development guidelines to the extent feasible.	Yes. The alternative is located in a design review district and Coastal Zone. The County General Plan and associated Municipal Code provide regulations, development standards, and design requirements for zoning districts (e.g., building setbacks, height restrictions, landscape plans, architectural review plans) would apply and protect visual resources.

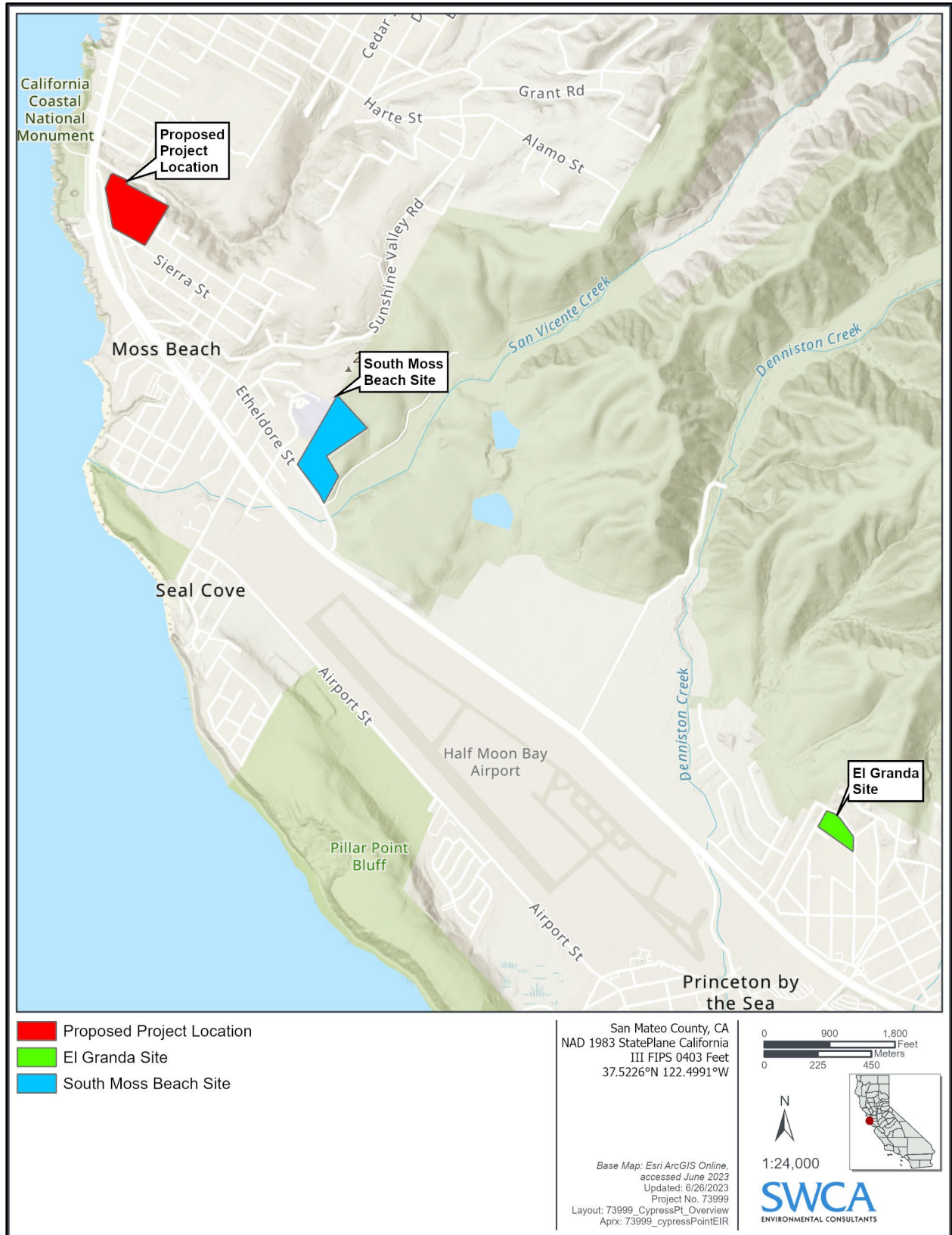


Figure 4.4-1. Off-Site Alternatives.

4.4.3.1 Comparison of Significant Effects of Alternative 2: South Moss Beach Site to the Proposed Project

Under Alternative 3, the buildout of the project site would include development of affordable housing for local residents. However, development of the project site in this alternate location would require grading and ground-disturbing activities on slopes adjacent to a mapped wetland area, conflicting with the Local Coastal Plan. As a result, impacts under this alternative would be generally similar to impacts associated with the project, as most project impacts are construction-related. Alternative 3 would partially meet the project objectives. MidPen does not currently own the South Moss Beach site, but it is designated as affordable housing in the LCP.

AESTHETICS

Under Alternative 3, future buildout of the project site would include construction of new affordable housing allowed by the development standards set forth in the LCP. Alternative 3 would allow for development at a similar scale (71 units, as proposed by the project). Similar to the project, this alternative would result in a similar change in the existing visual character of the site from undeveloped to developed. This alternative would also include removal of all or most of the existing vegetation on-site to accommodate development. Inhabitants of the surrounding residential land uses as well as motorists, cyclists, and pedestrians traveling along public roadways would notice this visual change, as they would with the project. However, like the project, this alternative would not have a substantial effect on a scenic vista or damage scenic resources within a State Scenic Highway, as the site is not visible from Highway 1 which is within the vicinity of the Alternative 3 site. Development under this alternative would be required to adhere to the same guidance and requirements set forth in the LCP for design review, landscape standards, and lighting and glare requirements as the project.

Therefore, impacts of the Alternative 3 related to aesthetics would be *similar* in comparison to the impacts associated with the project.

AIR QUALITY

Implementation of this alternative would result in an increase in criteria pollutant emissions because construction activities would occur, and new operational sources would be created. Construction activities would result in a short-term increase in air pollutant emissions generated by construction equipment, vehicle use, and ground-disturbing activities. As identified for the project, this alternative would also be required to implement mitigation to reduce construction-related air pollutant emissions. This alternative would be similar to the project's less-than-significant impact related to exposing nearby residential development to toxic air contaminants from the use of off-road diesel equipment since construction activities would occur within 1,000 feet of nearby sensitive receptors. All other air quality and odor impacts associated with this alternative would be *similar* to the proposed project. Mitigation Measures MM-AQ-2a and MM-AQ-2b would be applicable under this alternative.

BIOLOGICAL RESOURCES

Alternative 3 would result in buildout of half of the 12.5-acre parcel in a manner consistent with the proposed project, requiring similar grading and ground-disturbing activities necessary to prepare the site for development. As such, Alternative 3 would have similar potential as the project to result in direct and indirect impacts related to construction activities to special-status wildlife species identified in Section 3.3, Biological Resources, including the California red-legged frog, nesting migratory birds and raptors, or the Choris' popcorn flower. Alternative 3 would be required to implement the same mitigation measures as the project to reduce construction-related impacts. Like the project, this alternative would

also involve the removal of existing trees located on-site and impacts would be *similar* in comparison to the proposed project.

The project site is located within an HCP specific to PG&E's Bay Area O&M activities. The U.S. Fish and Wildlife Service (USFWS) has issued PG&E an Endangered Species Act Section 10(a)(1)(B) incidental take permit for the company's Bay Area O&M HCP. This HCP is designed only to cover PG&E's activities; the HCP includes strategies to avoid, minimize, and offset potential direct, indirect, and cumulative effects of PG&E's operations, maintenance, and minor new construction activities on 32 species federally listed as threatened or endangered. Impacts on HCPs would be *similar* in comparison to the proposed project.

However, the following would be required as part of Alternative 3:

- Based on information contained in the National Wetlands Inventory,⁴⁴⁵ the project site is adjacent to and drains to San Vicente Creek, resulting in development within 100 feet of a wetland; and
- Development is adjacent to an environmentally sensitive habitat, which would significantly degrade the habitat and reduce its biological productivity.

Therefore, impacts of Alternative 3 related to biological resources impacts would be *greater* in comparison to impacts associated with the project. Mitigation Measures MM-BIO-1 through MM-BIO-5 would be applicable under this alternative.

GEOLOGY AND SOILS

Alternative 3 would result in buildout of half of the 12.5-acre parcel in a manner consistent with the project, requiring similar grading and ground-disturbing activities necessary to prepare the site for development. Alternative 3 would include the development of new habitable buildings and structures and would have the same potential for seismic-related hazards, including fault rupture, ground shaking, liquefaction, and landslide and the potential for other ground-failure events as the project. This alternative would be required to implement mitigation and adhere to CBC and other applicable engineering standards to reduce potential impacts related to seismic-related and other ground-failure events. Under Alternative 3, ground-disturbance impacts are increased, and have a higher potential to increase erosion and loss of topsoil during construction. This alternative would be required to comply with an SWRCB General Construction Permit. In addition, this alternative would have the same potential to disturb paleontological resources if present within the proposed area of disturbance and would be required to implement mitigation to reduce potential disturbance to paleontological resources during project construction.

Because Alternative 3 does not include the use of septic tanks, impacts would be *similar* in comparison to the proposed project.

Therefore, impacts of the Alternative 3 related to geology and soils impacts would be *greater* in comparison to impacts associated with the project. Mitigation Measure MM-GEO-1 would be applicable under this alternative.

GREENHOUSE GAS AND CLIMATE CHANGE

This alternative would allow for buildout of the project site, requiring the use of equipment and vehicles that would generate short-term GHG emissions. However, given that the scale of this alternative is similar to the project, it would not generate GHG emissions above established BAAQMD thresholds. Long-term

⁴⁴⁵ U.S. Fish and Wildlife Service. 2023. National Wetlands Inventory. Available at: <https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper>. Accessed June 2023.

GHG emissions would be generated by vehicle trips created by the project and operational energy use. This alternative includes construction equipment use at a similar scale to the proposed project, and would likely not exceed the operational GHG emissions thresholds, resulting in similar impacts as the project. Therefore, impacts of Alternative 2 related to air quality and GHG emissions would be *similar* in comparison to impacts associated with the project.

HAZARDS AND HAZARDOUS MATERIALS

Alternative 3 would result in buildout of half of the 12.5-acre parcel in a manner consistent with the project, requiring similar grading and ground-disturbing activities necessary to prepare the site for development. This would require the use of construction-related hazardous materials (e.g., fuels, gasoline, solvents, oils, paints) and would be required to comply with state and local regulations to reduce associated hazards. The alternative site location removes the threat of encountering lead-impacted soils during construction. This alternative would result in *less* impacts related to hazardous materials exposure and transport during project development.

However, approximately half of the site has a zoning district associated with the Half Moon Bay Airport zoning district, which limits development to one unit per 2 acres and has the potential to create land uses that may be inconsistent with the applicable airport land-use policies or create a potential safety hazard for land uses located within Inner Turning Zone 3 (western portion of the site) as stated in the 2014 Draft Half Moon Bay Airport Land Use Compatibility Plan (ALUCP).⁴⁴⁶ The proposed project is in Zone 7 of the airport influence area, the outermost area indicated in the ALUCP. The aircraft accident risk level in Zone 7 is considered to be low.⁴⁴⁷ The ALUCP places no limits on the number of dwelling units per acre within the airport influence area. The ALUCP provides height requirements for new development within Zone 7, allowing structures to be no taller than 300 feet.⁴⁴⁸

Alternative 3 is further from Farallone View Elementary School than the proposed project. There would be *no impact* related to schools and would be *similar* in comparison to the proposed project. Alternative 3 is closer to the proposed project and has an airport overlay. Impacts would be *greater* in comparison to the project.

Therefore, some of the less-than-significant hazards and hazardous materials impacts under Alternative 3 would be less in comparison to the project, other less-than-significant impacts would be greater. However, all impacts would be less-than-significant and *similar* in comparison to the project.

HYDROLOGY AND WATER QUALITY

The project site is currently undeveloped, consisting of largely pervious surfaces. The alternative site is located adjacent to San Vicente Creek. Alternative 3 would result in buildout of the site in a manner consistent with the project and is likely to result in the creation of similar acreages of impervious surfaces (approximately 143,254 square feet) as the proposed project. These increases would have the potential to increase the pollutants and non-stormwater discharges that could adversely impact water quality. This alternative has a slightly higher potential for substantial increases in soil erosion and sediment transport, due to slope and proximity of San Vicente Creek, and has the potential to affect water quality from runoff as the project, particularly during construction phases that include excavation, grading, and other earthwork. As such, this alternative would result in a large amount of soil disturbance, require the use of construction equipment and vehicles during construction, and result in a large amount of new impervious

⁴⁴⁶ City/County Association of Governments (C/CAG). 2014. *Airport Land Use Compatibility Plan for the Environs of Half Moon Bay Airport*. <https://ccag.ca.gov/wp-content/uploads/2014/10/HAF-ALUCP-Final.pdf>. Accessed January 20, 2023.

⁴⁴⁷ C/CAG, 2014.

⁴⁴⁸ C/CAG, 2014.

surface area at the project site, which is consistent with the project. Further, this alternative would be subject to the same mitigation measures as the project as well as all applicable state and local water quality protection requirements, which is also consistent with the project.

Therefore, impacts of Alternative 3 related to hydrology and water quality would be *greater* in comparison to impacts associated with the project.

LAND USE AND PLANNING

Alternative 3 will not result in new features that could physically divide an established community, consistent with the project. Under this alternative, implementation of the project would require approvals including a General Plan Amendment from Medium-High Density Residential to Medium Density Residential Use. The Medium-High Density Residential designation allowed for development at densities between 8.8 and 17.4 housing units per acre.⁴⁴⁹ In the LCP, the alternative site is designated as a priority development site for affordable housing.⁴⁵⁰ This alternative would be inconsistent with the LCP, which would not match Land Use Zoning and would require a General Plan Amendment for consistency. Therefore, impacts of Alternative 3 related to land use and planning would be *similar* in comparison to impacts associated with the project.

The Alternative 3 site has the potential to conflict with the following LCP Policies:

- Policy 7.3 because it would involve development adjacent to an Environmentally Sensitive Habitat Area.
- Policies 7.18 and 7.19 which prohibit development within 100 feet of wetlands;
- Policy 8.7 involving development on a ridgeline or hilltop;
- Policy 8.13 because of the need for extensive grading; and
- Policy 9.18 which prohibits development on slopes greater than 30%

Further, development on this site would require that MidPen obtain an agreement of ownership or lease of the subject parcel. MidPen was not able to facilitate communication with the property owner(s) to advance any potential land acquisition or development discussions.⁴⁵¹

NOISE

Alternative 3 would result in buildout of half of the 12.5-acre parcel in a manner consistent with the project, resulting in the generation of similar short-term, intermittent increases in ambient noise during the construction phase from initial site improvements, vehicle and equipment movement, and future construction of residential and commercial land uses. Like the project, construction activities in this alternative would have the potential to result in temporary exceedances of the maximum acceptable noise levels for residential land uses set forth in the County Code. In addition, this alternative would create similar long-term, permanent increases in ambient noise levels, primarily associated with potential increases in vehicle traffic and on-site activities. Alternative 3 would be required to implement the same mitigation measures as the project to reduce less-than-significant construction-related noise and vibration impacts.

⁴⁴⁹ County of San Mateo. 1986. General Plan. Available at: <https://www.smcgov.org/planning/general-plan>. Accessed May 15, 2023.

⁴⁵⁰ San Mateo County. 2013. *Local Coastal Program Policies*. Available at: <https://www.smcgov.org/planning/local-coastal-program>. Accessed March 30, 2023.

⁴⁵¹ Stevens Consulting. 2019. Alternatives Analysis.

As stated in the Initial Study, the Half Moon Bay Airport, is located approximately 0.2 mile south of the proposed project site.⁴⁵² The project site is not located within the 2012 or projected 2032 noise exposure contour limits of 60, 65, and 70 community noise equivalent level.⁴⁵³ However, Alternative 3 is within Inner Turning Zone 3 (western portion of the site) as stated in the 2014 Draft ALUCP, and therefore is more likely to experience disruptive or potentially damaging airplane noise.⁴⁵⁴ Impacts would be *greater* in comparison to the proposed project.

Therefore, impacts of Alternative 3 related to noise would be *greater* due to the proximity to the airport in comparison to impacts associated with the project. Mitigation Measures MM-N-1 and MM-N-2 would be applicable under this alternative.

TRANSPORTATION

Alternative 3 would provide for development of affordable housing on a site located approximately 4,500 feet south of the Cypress Point project site. Primary access from and to S.R. 1 would be from South Etheldore Street or Marine Boulevard [the two closest points] rather than Carlos Street and California Avenue to the north as with the proposed project. Alternative 3 would be developed under the Local Preference Agreement with a total of 71 residential units; the same as the proposed project. The project sponsor would also be required to implement the same set of required C/CAG Transportation Demand Management (TDM) measures identified for the proposed project (see Chapter 2, Project Description) to promote active transportation and limit use of single-occupancy vehicles for discretionary trips.

Alternative 3 would have the same residential development program as the proposed project therefore it would generate a similar level of vehicular traffic. Vehicle trips, pedestrians, and cyclists would be distributed to a different portion of the Moss Beach road network, would access S.R. 1 at different locations than under the proposed project, e.g., at South Etheldore Street or Marine Boulevard; and would access public transit at a different location than under the proposed project, e.g., at Marine Boulevard and South Etheldore Street, that would not require crossing of S.R. 1 to travel north or south. Although the immediate pedestrian network in the vicinity of the Alternative 3 project site is discontinuous, similar to that of the proposed project, the pedestrian safety concerns would be reduced due to the proximity of the San Mateo County bus stops for routes 117 and 18.

Under Alternative 3 consistency-related issues with transportation-related plans, programs, policies or other ordinances such as Connect the Coastside and the Moss Beach/SR-1 Safety Improvement Project that control the safety and effectiveness of the transportation system would be similar to those of the proposed project because they would have similar traffic-generating potentials. Thus, Alternative 3 would not conflict with or result in an adverse effect on the circulation system, including transit, roadway, bicycle and pedestrian facilities, and parking.

Under Alternative 3, VMT-related impacts would be similar to those of the proposed project because of the location of the project and the countywide per capita VMT threshold for home-based VMT. Although eligible for project screening under current County guidance as an urban infill affordable housing project, a detailed VMT analysis would show that Alternative 3 would generate home-based VMT in excess of the County's threshold and that VMT reduction efforts would not reduce or eliminate the significant and unavoidable impact. As with the proposed project, Alternative 3 would conflict with CEQA Guidelines 15064.3(b) and the impact would be significant and unavoidable.

⁴⁵² City/County Association of Governments (C/CAG). 2014.

⁴⁵³ C/CAG, 2014.

⁴⁵⁴ C/CAG, 2014.

Under Alternative 3 traffic hazard and pedestrian safety concerns related to Carlos Steet would not occur. Project-related traffic would not use Carlos Street to access S.R. 1 where the road geometrics and line-of sight issues are known safety hazards. Furthermore, future residents would not need to cross S.R. 1 to access the most convenient bus stops for southbound travel, i.e., there are northbound and southbound stops on Etheldore Street north of site. Therefore, impacts of Alternative 3 related to traffic hazards and pedestrian and bicyclist safety would be *decreased* in comparison to impacts associated with the project.

Under Alternative 3, emergency access impacts would be considered less than significant, *similar* to those of the proposed project.

In comparison to transportation impacts associated with the proposed project, the impacts of Alternative 3 would be *decreased* except for the significant and unavoidable VMT impact.

Mitigation Measure MM-TR-2 would be applicable under this alternative to address VMT impacts. Mitigation Measures TR-3, TR-4b, and TR-4c would not be applicable because they address site-specific hazards for drivers, pedestrians and cyclists associated with the proposed project.

UTILITIES AND SERVICE SYSTEMS

Alternative 3 would result in buildout of half of the 12.5-acre parcel in a manner similar to the project, resulting in the need for the construction of new and expanded infrastructure improvements on-site. The project would result in an increased demand for water, as well as increased wastewater and solid waste generation rates over existing conditions, resulting in impacts *similar* to the proposed project.

Overall, impacts of Alternative 3 related to utilities and service systems would be *similar* in comparison to impacts associated with the project.

WILDFIRE

Alternative 3 would result in buildout of half of the 12.5-acre parcel in a manner similar to the project, resulting in approximately 213 new residents on the project site. Some vegetation would be cleared. The Alternative 3 site is in a very high fire hazard severity zone.⁴⁵⁵

Overall, impacts of Alternative 3 related to wildfires would be *greater* in comparison to the project.

INITIAL STUDY TOPICS

The Planning Department distributed an NOP of an EIR and Notice of Public Scoping Meeting on December 9, 2022, announcing its intent to prepare an EIR, including an initial study, and to solicit comments from the public about the scope of this EIR (the NOP is presented in Appendix A). The initial study (see Appendix B) determined that project-specific and cumulative impacts for certain resource topics would not require additional analysis in the EIR because the proposed project or project variants would have no impact, less-than-significant impact, or less-than-significant with mitigation incorporated impacts.

- **Agriculture and Forestry Resources:** The Alternative 3 site has prime soils on-site. However, due to the Airport Overlay, soils would remain undisturbed during construction of the housing. The Alternative 3 site contains no land that the CDOC designates as Prime Farmland, Unique

⁴⁵⁵ Association of Bay Area Governments. 2020. MTC/ABAG Hazard Viewer Map. Available at: <https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fe8>. Accessed June 2023.

Farmland, or Farmland of Statewide Importance.^{456, 457} Impacts would be *greater* than the proposed project.

- Cultural Resources: There are no obvious historical resources in the vicinity, like the lighthouse and Montara Water and Sanitary District office. Impacts would be decreased in comparison to the proposed project. Archaeologically, Alternative 3 would be similar in site sensitivity to the proposed project. Alternative 2 is located far from the coast in a steep area but is located in close proximity to San Vicente Creek. The site is sensitive and MM-CR-1 through MM-CR-4 would apply. Impacts would be *similar* in comparison to the proposed project.
- Energy: All energy consumed would not be considered wasteful or inefficient. The project would not conflict with any renewable energy plans. Impacts would be *similar* in comparison to the proposed project.
- Mineral Resources: The Alternative 3 site is not located within an area designated by the California Surface Mining and Reclamation Act Mineral Land Classification as a Mineral Resource Zone-2, which indicates the existence of a deposit that meets certain criteria for value and marketability.⁴⁵⁸ The classification for the project site is Mineral Resource Zone-3, which is defined as “Areas containing mineral deposits the significance of which cannot be evaluated from available data.”⁴⁵⁹ Impacts would be *similar* in comparison to the proposed project.
- Population and Housing: The Alternative 3 site proposes a similar number of residential units to the proposed project. The Alternative 3 site is vacant and would not displace any people during construction. Impacts would be *similar* in comparison to the proposed project.
- Public Services: The project proposes a similar number of residential units to the proposed project. Alternative 3 would increase demand for public services during construction and operation. Impacts would be *similar* in comparison to the proposed project.
- Recreation: The project proposes a similar number of residential units to the proposed project. Alternative 3 would increase demand for public services during construction and operation. Impacts would be *similar* in comparison to the proposed project.
- Tribal Cultural Resources: As noted above under Cultural Resources, the Alternative 3 site is sensitive and MM-CR-1 through MM-CR-4 would apply. Impacts would be *similar* in comparison to the project.

Alternative 3 would occupy the same project site footprint as the proposed project and would have a similar, development intensity. The construction and operational impacts of Alternative 3 are *similar* to the proposed project. However, because the Alternative 3 site is located within an airport overlay, the impacts related to airport noise would be *greater* from the proposed project.

4.4.4 Alternative 4: El Granada Site

The El Granada site is a 6-acre parcel located in the community of El Granada, approximately 2.4 miles southeast of the proposed project site (APN 047-054-100) (Figure 4.2-1). The site is designated for affordable housing in the LCP. The parcel is owned by the Cabrillo Unified School District. This alternative is zoned R-3-A/S-5/DR/CZ. Approximately 71 housing units could be constructed on this

⁴⁵⁶ CDOC, 2019.

⁴⁵⁷ CDOC, 2012.

⁴⁵⁸ CDOC. 1996. Designated Areas Update, Regionally Significant Construction Aggregate Resource Areas in the South San Francisco Bay Production-Consumption Region. Montara Mountain Quadrangle, Open-File Report 96-03, Plate 18 of 29.

⁴⁵⁹ CDOC. 1996. Page xi.

property if the entire parcel was developed. The project site is vacant and surrounded by single-family homes. Rancho Corral De Tierra hiking trails could be accessed from the northern corner of the site.

Based on a February 21, 2018, site visit, the site is heavily vegetated, similar to the proposed project site. Additionally, the site slopes steeply at the northern end, which could potentially exceed slopes of 30 percent. The slope could present grading-related obstacles to development and potential conflicts with the following LCP Policies, as noted in Alternative 2:

- Policy 8.7 involving development on a ridgeline or hilltop;
- Policy 8.13 because of the need for extensive grading; and
- Policy 9.18 which prohibits development on slopes greater than 30%.

The site is heavily vegetated and has many trees on-site. The tree removal would likely result in similar impacts to the proposed project. Many of the trees are non-native species such as eucalyptus. While the project site has environmental constraints, Alternative 4 meets all but one of the project objectives and would lessen the significant transportation impacts related to pedestrian safety (Table 4.4-4).

Table 4.4-4. Attainment of Project Objectives: Alternative 4. El Granada Site

Project Objective	Alternative's Consistency with Project Objective
1. Provide a significant number of low-income affordable housing units in a vibrant, safe, well-designed community that respects the coastal character of the region, consistent with the San Mateo County Housing Element Adequate Site Inventory.	Yes. The project site would provide approximately 71 units for approximately 213 residents. The site is in a design review district and Coastal Zone.
2. Provide affordable housing in the region at cost-effective densities that are competitive for financing.	Yes. The alternative would provide housing in the Midcoast area and would serve the daily needs of the new residents and the surrounding community.
3. Address housing needs of households, families, and workers in the Midcoast and surrounding region.	Yes. The alternative would provide housing in the Midcoast area and would serve the daily needs of the new residents and the surrounding community.
4. Provide housing for a diverse range of low-income workers and families.	Yes. The housing would contribute to meeting the needs set forth in the Regional Housing Needs Allocation.
5. Improve the jobs/housing balance and jobs/housing fit in the region by providing affordable dwelling units near coastal jobs.	Yes. The alternative would provide housing in the Midcoast area and would serve the daily needs of the new residents and the surrounding community.
6. Provide informal recreational opportunities for residents in the region and the general public by providing access to a trail on undeveloped portions of the site.	No. To meet the 71 units, the entire site would have to be developed and there would be no public open space.
7. Be consistent with the character of the surrounding neighborhood by adhering to the existing development guidelines to the extent feasible.	Yes. The alternative site is located in a design review district and Coastal Zone. The County General Plan and associated Municipal Code provide regulations, development standards, and design requirements for zoning districts (e.g., building setbacks, height restrictions, landscape plans, architectural review plans) would apply and protect visual resources.

4.4.4.1 Comparison of Significant Effects of Alternative 4: El Granada Site to the Proposed Project

Under Alternative 4, buildout of the project site would include development of affordable housing for local residents. However, development of the project site in this alternate location would require grading and ground-disturbing activities on slopes, potentially conflicting with the LCP. Further, MidPen staff discussed with the Superintendent of the Cabrillo Unified School District whether the site would be

available for development during a phone call on September 19, 2017.⁴⁶⁰ The Superintendent indicated that the District is reserving this property for a potential school facility or other district-related uses. The School District was not interested in selling the property and MidPen may not be able to develop this site.

Impacts under this alternative would be generally similar to impacts associated with the project, as most project impacts are construction-related. Alternative 4 would meet all project objectives except for Objective 6.

AESTHETICS

Under Alternative 4, future buildout of the project site would include construction of new affordable housing allowed by the development standards set for in the County Code and LCP. Alternative 4 would allow for development at a similar scale (71 units, as proposed by the project). The alternative would result in a notable change in the existing visual character of the site from undeveloped to developed. This alternative would also include removal of all or most of the existing vegetation on-site to accommodate development. Inhabitants of the surrounding residential land uses as well as motorists, cyclists, and pedestrians traveling along public roadways would notice this visual change, as they would with the project. However, like the project, this alternative would not have a substantial effect on a scenic vista or damage scenic resources within a State Scenic Highway, as no such resources have been identified within the vicinity of the project site. Development under this alternative would be required to adhere to the same guidance and requirements set forth in the County Code and LCP for design review, landscape standards, and lighting and glare requirements as the project.

Therefore, impacts of Alternative 4 related to aesthetics would be *similar* in comparison to impacts associated with the project.

AIR QUALITY

Implementation of this alternative would result in an increase in criteria pollutant emissions because construction activities would occur, and new operational sources would be created. Construction activities would result in a short-term increase in air pollutant emissions generated by construction equipment, vehicle use, and ground-disturbing activities. As identified for the project, this alternative would also be required to implement mitigation to reduce construction-related air pollutant emissions. This alternative would be similar to the project's less-than-significant impact related to exposing nearby residential development to toxic air contaminants from the use of off-road diesel equipment, since construction activities would occur within 1,000 feet of nearby sensitive receptors.

All other air quality and odor impacts associated with this alternative would be *similar* to the project. Mitigation Measures MM-AQ-2a and MM-AQ-2b would be applicable under this alternative.

BIOLOGICAL RESOURCES

Alternative 4 would result in buildout of the entire 6-acre parcel in a manner consistent with the project, requiring increased grading and ground-disturbing activities necessary to prepare the site for development; however, the disturbance area would be smaller. As such, Alternative 4 would have a similar potential than the project to result in direct and indirect impacts related to construction activities to special-status wildlife species identified in Section 3.3, Biological Resources, including the California red-legged frog, nesting migratory birds and raptors, or the Choris' popcorn flower. Like the project, this alternative would also involve the removal of existing trees located on-site.

⁴⁶⁰ Stevens Consulting, 2019.

The project site is located within an HCP specific to PG&E's Bay Area O&M activities. The U.S. Fish and Wildlife Service (USFWS) has issued PG&E an Endangered Species Act Section 10(a)(1)(B) incidental take permit for the company's Bay Area O&M HCP. This HCP is designed only to cover PG&E's activities; the HCP includes strategies to avoid, minimize, and offset potential direct, indirect, and cumulative effects of PG&E's operations, maintenance, and minor new construction activities on 32 species federally listed as threatened or endangered. Impacts on HCPs would be *similar* in comparison to the proposed project.

Therefore, the impacts of Alternative 4 related to biological resources would be *similar* in comparison to impacts associated with the project. Mitigation Measures MM-BIO-1 through MM-BIO-5 would be applicable under this alternative.

GEOLOGY AND SOILS

Alternative 4 would result in buildout of the entire 6-acre parcel in a manner consistent with the project, but due to slope, would require increased grading and ground-disturbing activities necessary to prepare the site for development. Alternative 4 would include the development of new habitable buildings and structures and would have the same potential for seismic-related hazards, including fault rupture, ground shaking, liquefaction, and landslide and the potential for other ground-failure events as the project. This alternative would be required to implement mitigation and adhere to CBC and other applicable engineering standards to reduce potential impacts related to seismic and other ground-failure events. Under Alternative 4, ground-disturbance impacts are *increased* and have a higher potential to increase erosion and loss of topsoil during construction due to slope and grading intensity. This alternative would be required to comply with an SWRCB General Construction Permit. In addition, this alternative would have the same potential to disturb paleontological resources if present within the proposed area of disturbance and would be required to implement mitigation to reduce potential disturbance to paleontological resources during project construction.

Because Alternative 4 does not include the use of septic tanks, there would be no impact with regards to septic tanks and impacts would be *similar* in comparison to the proposed project.

Therefore, impacts of Alternative 4 related to geology and soils impacts would be *greater* in comparison to impacts associated with the project. Mitigation Measure MM-GEO-1 would be applicable under this alternative.

GREENHOUSE GAS AND CLIMATE CHANGE

Alternative 4 would allow for buildout of the project site, requiring the use of equipment and vehicles that would generate short-term GHG emissions. However, given that the scale of this alternative is similar to the project, it would not generate GHG emissions above established BAAQMD thresholds. Long-term GHG emissions would be generated by vehicle trips created by the project and operational energy use. This alternative includes construction equipment use at a similar scale to the proposed project, and would likely not exceed the operational GHG emissions thresholds, resulting in similar impacts as the project. Therefore, impacts of Alternative 4 related to air quality and GHG emissions would be *similar* in comparison to impacts associated with the project.

HAZARDS AND HAZARDOUS MATERIALS

Alternative 4 would result in buildout of the entire 6-acre parcel in a manner consistent with the project, requiring increased grading and ground-disturbing activities necessary to prepare the site for development. This would require the use of construction-related hazardous materials (e.g., fuels, gasoline, solvents, oils, paints) and would be required to comply with state and local regulations to reduce

associated hazards. The alternative site location removes the threat of encountering lead-impacted soils during construction. This alternative would require less mitigation related to hazardous materials exposure and transport during project development.

Alternative 4 is not located within 0.25 mile of any schools, and impacts would be *similar* to the proposed project. However, the airport is closer to Alternative 4 and impacts would be *greater* due to increased airport noise in comparison to the proposed project.

Some of the less-than-significant hazards and hazardous materials impacts related to lead-impacted soil would be less under Alternative 4. However, the hazards related to airports would be greater than the under Alternative 4. Therefore, the impacts of Alternative 4 related to hazard and hazardous material impacts would be *similar but less* in comparison to the project.

HYDROLOGY AND WATER QUALITY

The project site is currently undeveloped and consists of largely pervious surfaces. Alternative 4 would result in buildout of the 6-acre site in a manner consistent with the project and is likely to result in the creation of slightly less impervious surfaces. Considering the size of the site, buildings would be developed closer to each other. The proposed increases over existing conditions would have the potential to decrease the pollutants and non-stormwater discharges that could adversely impact water quality. This alternative has a slightly higher potential for substantial increases in soil erosion and sediment transport, which have the potential to affect water quality from runoff, as the project, particularly during construction phases that include excavation, grading, and other earthwork. As such, this alternative would result in a large amount of soil disturbance, require the use of construction equipment and vehicles during construction, and result in a large amount of new impervious surface area at the project site, which is consistent with the project. Further, this alternative would be subject to the same mitigation measures as the project as well as all applicable state and local water quality protection requirements, which is also consistent with the project.

Therefore, impacts of Alternative 4 related to hydrology and water quality would be *decreased* in comparison to impacts associated with the project.

LAND USE AND PLANNING

Alternative 4 would not result in new features that could physically divide an established community, consistent with the project. Under this alternative, implementation of project would require approvals including a General Plan Amendment from Medium-High Density Residential to Medium Density Residential Use. The Medium-High Density Residential designation allowed for development at densities between 8.8 and 17.4 housing units per acre.⁴⁶¹ In the LCP, this alternative site is designated as a priority development site for affordable housing.⁴⁶² The current zoning of Alternative 4 would not allow for development of the project as proposed and would require rezoning to a PUD designation to allow for development of the 71 units and the community building in a manner similar to the currently proposed Project. This alternative site would require a General Plan Amendment and rezoning for consistency to match the required PUD zoning.

Therefore, the impacts of Alternative 4 related to land use and planning would be *greater* in comparison to impacts associated with the project.

⁴⁶¹ County of San Mateo, 1986.

⁴⁶² San Mateo County, 2013.

NOISE

Alternative 4 would result in buildout of the entire 6-acre parcel manner consistent with the project, resulting in the generation of similar short-term, intermittent increases in ambient noise during the construction phase from initial site improvements, vehicle and equipment movement, and future construction of residential and commercial land uses. Like the project, construction activities in this alternative would have the potential to result in temporary exceedances of the maximum acceptable noise levels for residential land uses set forth in the County Code. In addition, this alternative would create similar long-term, permanent increases in ambient noise levels, primarily associated with potential increases in vehicle traffic and on-site activities. Alternative 4 would be required to implement the same mitigation measures as the project to reduce less-than-significant construction-related noise and vibration impacts.

The Half Moon Bay Airport is located approximately 0.4 mile east of the proposed project site.⁴⁶³ The project site is not located within the 2012 or projected 2032 noise exposure contour limits of 60, 65, and 70 community noise equivalent level.⁴⁶⁴ Given the intervening topography and distance, development of the Alternative 4 site would not expose people residing or working on this site to excessive noise levels. Impacts would be *similar* in comparison to the proposed project.

Therefore, the impacts of Alternative 4 related to noise would be *similar* in comparison to impacts associated with the project. Mitigation Measures MM-N-1 and MM-N-2 would be applicable under this alternative.

TRANSPORTATION

Alternative 4 would provide for development of affordable housing on a site located approximately 2.5 miles from the Cypress Point Project site in El Granada. Primary access from and to S.R. 1 would be from Coral Reef Avenue rather than Carlos Street and California Avenue as with the proposed project. Alternative 4 would be developed under Local Preference Agreement with a total of 71 residential units; the same as the proposed project. The project sponsor would also be required to implement the same set of required C/CAG Transportation Demand Management (TDM) measures identified for the proposed project (see Chapter 2, Project Description) to promote active transportation and limit use of single-occupancy vehicles for discretionary trips.

Alternative 4 would have the same residential development program as the proposed project therefore it would generate a similar level of vehicular traffic. Vehicle trips, pedestrians, and cyclists would be distributed to a different portion of the road network along the Midcoast closer to El Granada, would access S.R. 1 at different locations than under the proposed project; and would access public transit at different locations than under the proposed project. The closest S.R. 1 crossing locations are at Coral Reef Avenue which is a side-stop controlled intersection and at Capistrano Road which is a signalized intersection. Although the immediate pedestrian network in the vicinity of the Alternative 4 project site is missing sidewalks, similar to that of the proposed project, the connecting and adjacent streets such as Avenida Granada to the south and Coral Reef Avenue to the north and west have complete sidewalk networks. In addition, pedestrian safety concerns would be reduced due to the location of the San Mateo County bus stops for routes 117 and 18, i.e., at Avenida Alhambra, which runs parallel to and east of S.R. 1, and Vallejo Street. Although more distant, access to transit would not require crossing of S.R. 1.

Under Alternative 4 consistency-related issues with transportation-related plans, programs, policies or other ordinances such as Connect the Coastside that control the safety and effectiveness of the

⁴⁶³ C/CAG, 2014.

⁴⁶⁴ C/CAG, 2014.

transportation system would be similar to those of the proposed project because they would have similar traffic-generating potentials. Thus, Alternative 4 would not conflict with or result in an adverse effect on the circulation system, including transit, roadway, bicycle and pedestrian facilities, and parking.

Under Alternative 4, VMT-related impacts would be similar to those of the proposed project because of the location of the project and the countywide per capita VMT threshold for home-based VMT. Although eligible for project screening under current County guidance as an urban infill affordable housing project, a detailed VMT analysis would show that Alternative 4 would generate home-based VMT in excess of the County's threshold and that VMT reduction efforts would not reduce or eliminate the significant and unavoidable impact. As with the proposed project, Alternative 4 would conflict with CEQA Guidelines 15064.3(b) and the impact would be significant and unavoidable, *similar* to the proposed project.

Under Alternative 4 traffic hazard and pedestrian safety concerns related to Carlos Steet would not occur. Project-related traffic would not use Carlos Street to access S.R. 1 where the road geometrics and line-of-sight issues are known safety hazards. Although future residents would need to cross S.R. 1 to access bus stops for southbound travel and be aware of the travel speed of traffic on SR-1 1, the flat topography and roadway geometry do not create line-of-sight concerns at the intersection with Coral Reef Avenue. Therefore, impacts of Alternative 3 related to traffic hazards and pedestrian safety would be *decreased* in comparison to impacts associated with the project.

Under Alternative 4 emergency access impacts would be considered less than significant and *similar* to those of the proposed project.

In comparison to transportation impacts associated with the proposed project, the impacts of Alternative 4 would be *decreased* except for the significant and unavoidable VMT impact.

Mitigation Measure MM-TR-2 would be applicable under this alternative to address VMT impacts. Mitigation Measures TR-3, TR-4b, and TR-4c would not be applicable because they address site-specific hazards for drivers, pedestrians and cyclists associated with the proposed project.

UTILITIES AND SERVICE SYSTEMS

Alternative 4 would result in buildout of the entire 6-acre parcel in a manner similar to the project, resulting in the need for the construction of new and expanded infrastructure improvements on-site. This alternative would be required to implement the project's identified mitigation to reduce potential adverse impacts on the environment. The project would result in an increased demand for water, as well as increased wastewater and solid waste generation rates over existing conditions, resulting in *similar* impacts to the proposed project.

Overall, the impacts of Alternative 4 related to utilities and service systems would be *similar* in comparison to impacts associated with the proposed project.

WILDFIRE

Alternative 4 would result in buildout of the entire 6-acre parcel in a manner similar to the project, resulting in approximately 213 new residents on the project site. All vegetation would be cleared, but the site may not be able to accommodate a defensible space. This project is located adjacent to a very high fire hazard severity zone.⁴⁶⁵

Overall, the impacts of Alternative 4 related to wildfires would be *greater* in comparison to the proposed project.

⁴⁶⁵ Association of Bay Area Governments, 2020.

INITIAL STUDY TOPICS

The Planning Department distributed an NOP of an EIR and Notice of Public Scoping Meeting on December 9, 2022, announcing its intent to prepare an EIR, including an initial study, and to solicit comments from the public about the scope of this EIR (the NOP is presented in Appendix A). The initial study (see Appendix B) determined that project-specific and cumulative impacts for certain resource topics would not require additional analysis in the EIR because the proposed project or project variants would have no impact, less-than-significant impact, or less-than-significant with mitigation incorporated impacts. Additional analysis is not required for the following topics:

- Agriculture and Forestry Resources: The proposed project site contains no land that the CDOC designates as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.^{466, 467} Impacts would be *similar* to the proposed project.
- Cultural Resources: The Alternative 4 site is located near eligible/listed properties in the historic area of El Granada. A review of historical aerial photographs showed some that creeks used to run through the project site, increasing sensitivity. The site is sensitive and MM-CR-1 through MM-CR-4 would apply. Impacts would be *similar* in comparison to the project.
- Energy: All energy consumed would not be considered wasteful or inefficient. The project would not conflict with any renewable energy plans. Impacts would be *similar* in comparison to the proposed project.
- Mineral Resources: The project is not located within an area designated by the California Surface Mining and Reclamation Act Mineral Land Classification as a Mineral Resource Zone-2, which indicates the existence of a deposit that meets certain criteria for value and marketability.⁴⁶⁸ The classification for the project site is Mineral Resource Zone-3, which is defined as “Areas containing mineral deposits the significance of which cannot be evaluated from available data.”⁴⁶⁹ Impacts would be *similar* in comparison to the proposed project.
- Population and Housing: The project proposes a similar number of residential units to the proposed project. The Alternative 4 site is vacant and would not displace any people during construction. Impacts would be *similar* in comparison to the proposed project.
- Public Services: The project proposes a similar number of residential units to the proposed project. The Alternative 4 site would increase demand for public services during construction and operation. Impacts would be *similar* in comparison to the proposed project.
- Recreation: The project proposes a similar number of residential units to the proposed project. The Alternative 4 site would increase demand for public services during construction and operation. Impacts would be *similar* in comparison to the proposed project.
- Tribal Cultural Resources: As noted above under Cultural Resources, the Alternative 3 site is sensitive and MM-CR-1 through MM-CR-4 would apply. Impacts would be *similar* in comparison to the project.

Alternative 4 would develop 71 housing units on approximately 6 acres and would require more intensive development throughout the site. However, the construction and operational impacts of Alternative 4, for each of the environmental topics noted in Appendix B: Initial Study (discussed above), impacts would be similar to those of the proposed project.

⁴⁶⁶ CDOC, 2019.

⁴⁶⁷ CDOC, 2012.

⁴⁶⁸ CDOC, 1996.

⁴⁶⁹ CDOC, 1996. Page xi.

4.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires the selection of an environmentally superior alternative; however, if the environmentally superior alternative is the “No Project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)). In the case of the Cypress Point project, the No Project Alternative is the most effective of the evaluated alternatives in reducing or avoiding the environmental effects of the proposed project. However, based on a comparative evaluation of all the action alternatives, Alternative 4: El Granada Site would reduce the magnitude of the most environmental impacts because it would result in a reduction of one significant and unavoidable impact while meeting the majority of the project objectives, except for Objective 6 which seeks to provide onsite open space as an amenity to residents. Alternative 4 would require that the entire site be developed, leaving no room for onsite open space. However, MidPen does not own the El Granada site; Cabrillo Unified School District owns the site and does not appear receptive to selling the property. While the project site has environmental constraints such as steep grades and thick vegetation, Alternative 4 would eliminate the significant and unavoidable transportation impacts related to pedestrian safety under TR-4 and the cumulative safety hazard under C-TR-3. All remaining potentially significant impacts would be similar to but slightly less than the proposed project with mitigation. This alternative would be the environmentally superior alternative.

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CHAPTER 5. OTHER CEQA CONSIDERATIONS

This chapter discusses other potential environmental effects for which the California Environmental Quality Act (CEQA) requires analysis, in addition to the specific issue areas evaluated in Chapter 3, Environmental Impacts Analysis. These additional effects include the potential for the project to result in growth-inducing impacts, the irreversible commitment of resources, and significant unavoidable environmental effects.

5.1 GROWTH-INDUCING IMPACTS

CEQA Guidelines Section 15126.2(e) requires that an Environmental Impact Report (EIR) provide a discussion of the growth-inducing impacts of the proposed project. Growth-inducing impacts could be caused by projects that foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth-inducing impacts also can be caused by removing obstacles to population growth, such as an expansion of a wastewater treatment plant, and can result from population increases that require the construction of new community services facilities.

In general terms, a project may induce spatial, economic, or population growth in a geographic area if it meets any of these four criteria:

1. Removal of an impediment to growth (e.g., establishment of an essential public service or the provisions of new access to an area);
2. Economic expansion or growth (e.g., changes in revenue base, employment expansion);
3. Establishment of a precedent-setting action (e.g., an innovation, a change in zoning, or general plan amendment approval); or
4. Development or encroachment into an isolated area or one adjacent to open space (being different from an “infill” type of project).

Should a project meet any one of the above-listed criteria, it can be considered growth-inducing. The impacts of the proposed project are evaluated below with regard to these four criteria.

5.1.1 Removal of an Impediment to Growth

The project site is currently accessible from Buena Vista Street, Lincoln Street, Carlos Street, and Highway 1. Therefore, implementation of the project would not establish new access to an undeveloped area.

While the project would result in the extension and expansion of water and wastewater system infrastructure on the project site, it is located within the existing service area of the Montara Water and Sanitary District (MWSD). Water and wastewater services currently serve as a direct constraint on development in the Montara and Moss Beach areas.⁴⁷⁰ However, the extension of MWSD infrastructure to the project site would not remove an impediment to future unplanned growth in the project vicinity or provide an essential public service that could induce additional population growth. Expansion of existing MWSD infrastructure capacity would be designed to serve existing MWSD customers, the population induced by the project, and future planned population growth within the MWSD and Sewer Authority Mid-Coastside service areas. Therefore, the project and implementation of associated water and

⁴⁷⁰ MWSD, 2017. *2017 Water System Master Plan*. Available at: https://mwsd.montara.org/assets/uploads/documents/MWSD_2017%20Master%20Plan%20Update_Rev17_082417_Full.pdf. Accessed June 2023.

wastewater system improvements would not have a substantial growth-inducing effect on surrounding land uses beyond the project's direct population growth discussed in Appendix B, **Initial Study Section 2.14, Population and Housing**. Impacts would be less than significant.

5.1.2 Economic Expansion or Growth

All residential units of the project, except for the manager's apartment, will be affordable to households earning up to 80% of the area's median income. In addition, the project proposes to include a preference for individuals who live and/or work in the region for 75% of the units. Eligible households are those that include at least one member who lives or works in the City of Pacifica, the City of Half Moon Bay, and/or the unincorporated County of San Mateo (County) region between the City of Pacifica and the City of Half Moon Bay, or the Greater Moss Beach Region. This preference structure increases the chances for individuals who meet these criteria to live in this development, although it does not restrict individuals who do not live and work in the area from being accepted.

Based on the most recent available data from the 2019 U.S. Census Bureau, there are 12,177 jobs located in the coastal region (Princeton, Miramar, El Granada, Montara, and Moss Beach) and the neighboring coastal cities of Pacifica and Half Moon Bay. Among these jobs, 7,892 (64.8%) are held by individuals commuting from outside the Greater Moss Beach Region. In total, 2,839 of these jobs require commutes between 10 and 24 miles, and 3,033 additional jobs require commutes of 25 miles or more.⁴⁷¹ Therefore, the project's expansion of residential units would serve the existing community and would not be expected to encourage significant economic growth. The project would result in a 3.4% increase in population (213 residents) within the combined communities of Montara and Moss Beach (6,269 residents); however, it is planned growth that is consistent with the land-use designation and zoning. The project could encourage a limited amount of growth as a result of the provision of jobs/uses that are not currently present in the immediate project vicinity. Impacts would be less than significant.

5.1.3 Establishment of a Precedent-Setting Action

In 1986, the County approved and the California Coastal Commission certified a rezoning of the project site to Planned Unit Development District No. 124/Coast Development District (PUD-124/CD) to enable the construction of a mixed-market rate/affordable housing development consisting of 148 dwelling units. The project site land-use designation in the San Mateo County Local Coastal Program (LCP) has since been amended to Medium Density Residential and zoned as Planned Unit Development District 140/Coastal Development District (PUD-140/CD), which allows for a total of 71 units on the project site. The LCP designates the site as infill and a priority development site for affordable housing.⁴⁷² As part of the project's approvals, a General Plan amendment from Medium-High Density Residential to Medium Density Residential would ensure the project is consistent with its zoning and land-use designations. Amending the General Plan would match the LCP PUD-140/CD zoning designation. The project would not newly designate undeveloped land for development, and the project has been zoned for residential development since 1986. The project also would not allow for increased density of development.

Compared to existing conditions, establishment of the project may increase the attractiveness of surrounding rural residential land for future residential development at similarly higher densities, including construction of accessory dwelling units and/or subdivisions and future commercial development. However, with implementation of the proposed General Plan amendment, the project would

⁴⁷¹ U.S. Census Bureau, 2019. Quickfacts: San Mateo County, California. Available at: <https://www.census.gov/quickfacts/sanmateocountycalifornia>. Accessed June 22, 2023.

⁴⁷² County of San Mateo. 2013. *Local Coastal Program Policies*. Available at: <https://www.smcgov.org/planning/local-coastal-program#>. Accessed June 2023.

be consistent with its zoning and land-use designation and would not establish a precedent-setting action. Impacts would be less than significant.

5.1.4 Development or Encroachment into an Isolated Area

The project site is bounded by vacant land to the southwest (toward Highway 1), residential properties along 16th Street to the northwest (in the community of Montara), and residential properties along Carlos, Sierra, and Lincoln Streets on the other two sides. As stated above, the project site has existing access from Buena Vista Street, Lincoln Street, and Carlos Street. The project is readily accessible from the City of Half Moon Bay and the communities of Montara and Moss Beach and is not considered an Isolated Area. Construction of residential units within the region would help alleviate the heightened housing demand within the County and would not foster the need for future construction of additional housing. Therefore, implementation of the project would not result in development or encroachment into an isolated area, and impacts would be less than significant.

5.2 IRREVERSIBLE COMMITMENT OF RESOURCES

CEQA Guidelines Section 15126.2(c) requires an EIR to consider significant, irreversible environmental changes, such as the use of nonrenewable resources and irretrievable commitment of resources. Section 15126.2(c) states that the use of nonrenewable resources during the initial and continued phases of a project may be irreversible if a large commitment of these resources makes their removal, indirect removal, or use thereafter unlikely. Nonrenewable resources such as natural gas, petroleum products, asphalt, steel, copper and other metals, sand, and gravel are considered to be commodities that are available in a finite supply. Several irreversible commitments of limited resources would result from implementation of the project. Such resources include, but are not limited to, the loss of lumber, gravel, concrete, asphalt, petrochemical construction materials, metals, and water consumption.

The project would develop residential uses within the currently undeveloped project site, the construction of which would irreversibly commit construction materials and nonrenewable energy resources (e.g., fossil fuels, wood). Nonrenewable resources used during construction for the project would no longer be used for other purposes. Consumption of building materials and energy is associated with all development projects in the region, and these commitments of resources are not unique or unusual to the project. Construction of residential and commercial structures are subject to the California Building Code, which regulates the method of use, properties, performance, and types of building materials used in construction. Construction equipment would be subject to state and local fuel efficiency standards and idling restrictions.

The buildout of the project would also result in an incremental contribution to the long-term consumption of energy resources associated with the establishment of residential and commercial uses within the project site. Future residential development would be serviced by the Pacific Gas and Electric Company, which supplies 48% of its energy mix from renewable resources, 39% from nuclear energy, 4% from large hydrological energy sources, and 9% from natural gas.⁴⁷³ The project proposes the use of rooftop solar arrays and would partially rely on energy generated from those arrays, resulting in an energy mix with more renewables than the energy mix provided by Pacific Gas and Electric Company. The project would meet or exceed the requirements of the California Building Code and California Title 24 in effect at the time of construction. Compliance with these standards would include implementation of water conservation measures, energy- and water-efficient appliances, and energy-efficient heating and cooling systems. These sustainable building features would reduce new energy demand and the consumption of

⁴⁷³ Pacific Gas and Electric Company, 2022. Renewable Energy and Storage. Available at: https://www.pgecorp.com/corp_responsibility/reports/2022/pf03_renewable_energy_storage.html. Accessed June 19, 2023.

water and nonrenewable fossil fuels to a level consistent with or better than other development within the project vicinity. Therefore, the commitment of these resources for project development has been planned for, and the impacts associated with the commitment of resources would be less than significant.

5.3 SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL EFFECTS

CEQA Guidelines Section 15126.2(c) requires that EIRs provide a discussion of significant impacts that cannot be mitigated to a level of insignificance without imposing an alternative design, their implications, and the reasons why the project is proposed, notwithstanding their effect. The project's potential impacts on the environment were evaluated concerning the specific resource areas in Chapter 3, Environmental Impacts Analysis. Based on the analysis provided in Chapter 3, the project would have four significant unavoidable impacts associated with transportation (see Section 3.10, Transportation).

The project's daily home-based vehicle miles traveled (VMT) per capita by resident would be above the VMT threshold for the Bay Area regional average, the County average, or the coastal transportation analysis zone average. The project would implement **MM-TR-2** to reduce VMT, however, the proposed project's VMT impact would remain significant and unavoidable with mitigation. The project would also cumulatively contribute to a significant cumulative transportation impact related to VMT. With implementation of **C-TR-2**, impacts would remain significant and unavoidable.

There are transportation-related hazards on Highway 1 including a lack of sidewalks, lack of crossing opportunities, high-speed traffic, vegetation and roadway design that limits visibility or safe lines-of-sight, and limited lighting. In the project site, pedestrians and bicyclists currently travel along Highway 1 or cross Highway 1 at unsignalized intersections in Moss Beach, such as Carlos and Etheldore Streets or at the midblock, all of which are identified hazards due to the lack of facilities, line-of-sight deficiencies, and traffic speeds. The project would implement **MM-TR-4** for additional transportation demand management measures and commit to gap closures of sidewalk improvements. However, the project's pedestrian safety impact would remain significant and unavoidable with mitigation. The project would also cumulatively contribute to a significant cumulative transportation impact related to hazards. With implementation of **C-TR-3**, impacts would remain significant and unavoidable.

In accordance with State CEQA Guidelines Section 15093, if an EIR demonstrates that implementation of a proposed project would cause significant and unavoidable impacts, the lead agency must issue a Statement of Overriding Considerations before approving the project to provide the specific reasons to support its action. Therefore, the County, as the lead agency, will be required to adopt a Statement of Overriding Considerations to address the significant impacts identified above and discussed in detail in Chapter 3 prior to approval of the project. For this document, the County may determine that the long-term benefits of the project, such as providing regional affordable housing opportunities, provide substantial overriding considerations for approving the project despite the identified adverse environmental impacts that would result from implementation of the project. To facilitate consideration of this determination, this EIR includes an evaluation of potential impacts and identifies a range of project alternatives that could reduce and/or fully negate adverse environmental effects. In addition, Appendix B, Initial Study Section 2.11, Land Use and Planning, provides a detailed analysis of the project's consistency with applicable local policies and objectives. Each of these resources may be used in consideration of the significant unavoidable effects that would result from the project.

CHAPTER 6. REPORT PREPARATION

This Environmental Impact Report (EIR) has been prepared by SWCA Environmental Consultants, in association with the San Mateo County Planning and Building Department (California Environmental Quality Act [CEQA] Lead Agency), and Fehr & Peers. The following is a list of the individuals responsible for the preparation of this EIR.

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