



Fort Ord Regional Trail and Greenway Project

Draft Environmental Impact Report

prepared by

Transportation Agency for Monterey County

55-B Plaza Circle

Salinas, California 93901

Contact: Rich Deal, Principal Engineer

prepared with the assistance of

Rincon Consultants, Inc.

437 Figueroa Street, Suite 203

Monterey, California 93940

November 2019



RINCON CONSULTANTS, INC.

Environmental Scientists | Planners | Engineers

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Acronyms and Abbreviations

AB	(California) Assembly Bill
AB	Assembly Bill
ACM	asbestos-containing material
ADA	Americans with Disabilities Act
ADL	aerially distributed lead
AMBAG	Association of Monterey Bay Area Governments
AMR	American Medical Response
amsl	above mean sea level
AQ	air quality
AST	aboveground storage tank
BCE	Before the Common Era
bgs	below ground surface
BLM	Bureau of Land Management
BMP	best management practices
BRA	Biological Resources Assessment
BRP	Base Reuse Plan (see FORA)
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Division of Occupational Safety and Health
CalAm	California American Water Company
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery

Transportation Agency for Monterey County
Fort Ord Regional Trail and Greenway Project

Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCC	California Coastal Commission
CCR	California Code of Regulations
CCRWQCB	Central Coast Regional Water Quality Control Board
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CE	Common Era
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CESA	California Endangered Species Act
CFC	chlorofluorocarbons
CH ₄	methane
CHL	California Historical Landmark
CHP	California Highway Patrol
CHRIS	California Historic Resources Information System
CMP	Congestion Management Program
CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNEL	Community Noise Equivalent Level
CNRA	California Natural Resources Agency
CO	Carbon monoxide
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalents
Coastal Rec Trail	Coastal Recreation Trail
COG	Council of Governments
CPUC	California Public Utilities Commission

CRHR	California Register of Historical Resources
CRLF	California red-legged frog
CRPR	California Rare Plant Rank
CSUMB	California State University Monterey Bay
CTS	California tiger salamander
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DEIR	Draft Environmental Impact Report
DOC	(California) Department of Conservation
DOF	(California) Department of Finance
DOF	(California) Department of Finance
DPM	diesel particulate matter
DPR	Department of Pesticide Regulation
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EAP	(California) Energy Action Plan
EIA	(U.S.) Energy Information Administration
EIC	Eastern Information Center
EIR	environmental impact report
EISA	Energy Independence and Security Act
EMS	emergency medical services
EO	(California) Executive Order
ESA	(federal) Endangered Species Act
FEIR	final environmental impact report
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act

Transportation Agency for Monterey County
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FMMP	Farmland Mapping and Monitoring Program
FORA	Fort Ord Reuse Authority
FORTAG	Fort Ord Regional Trail and Greenway
FRAP	Fire and Resource Assessment Program
ft	feet
FTA	Federal Transit Administration
GHG	greenhouse gas
GIS	geographic information system
GMPAP	Greater Monterey Peninsula Area Plan
GP 2025	Riverside General Plan 2025
gpd	gallons per day
gpm	gallons per minute
GPS	global position system
HCFC	hydrochlorofluorocarbons
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HFHSZ	High Fire Hazard Severity Zones
HHMB	Health Hazardous Materials Branch
HMP	habitat management plan
HR	hydrologic regions
HUD	(United States Department of) Housing and Urban Development
HVAC	Heating, ventilation, and cooling
IEPR	Integrated Energy Policy Report
in/sec	inches per second
IPCC	Intergovernmental Panel on Climate Change
KVP	key viewpoints
kWH	kilowatt hours
LBP	lead-based paint

lbs	pounds (weight)
LCP	Local Coastal Plan
LOS	level of service
LRA	Local Responsibility Area
LST	localized significance thresholds
LUST	Leaking Underground Storage Tank
M1W	Monterey One Water
MA	Master Agreement
MBCP	Monterey Bay Community Power
MBTA	Migratory Bird Treaty Act
MCFL	Monterey County Free Libraries
MCL	Maximum Contaminant Levels
MCWRA	Monterey County Water Resources Agency
mgd	million gallons per day
MGD	million gallons per day
MMAA	Master Mutual Aid Agreement
MPL	Monterey Peninsula Landfill
MPPRD	Monterey Peninsula Regional Park District
MRF	Material Recovery Facility
MRWMD	Monterey Regional Waste Management District
MSHCP	Multiple Species Habitat Conservation Plan
MSI	
MST	Monterey-Salinas Transit
MT	metric tons
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
MWELO	Model Water Efficient Landscape Ordinance
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan

Transportation Agency for Monterey County
Fort Ord Regional Trail and Greenway Project

NFIP	National Flood Insurance Plan
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO	Nitric oxides
NO ₂	Nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOD	Notice of Determination
NOI	Notice of Intent
NOP	Notice of Preparation
NO _x	Nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
NWIC	Northwest Information Center
O ₃	ozone
OHWM	ordinary high water mark
OPR	(Governor's) Office of Planning and Research
OSHA	(federal) Occupational Safety and Hazards Administration
PAH	polynuclear aromatic hydrocarbons
Parks and Rec Plan	(City of Seaside) Parks, Recreation, and Community Services Plan
PM	particulate matter
PM ₁₀	particulate matter between 2.5 and 10 micrometers diameter
PM _{2.5}	particulate matter less than 2.5 micrometers diameter
POTW	publicly owned treatment works
ppm	parts per million
PPV	peak particle velocity

PRC	(California) Public Resources Code
PRMP	(City of Monterey) Parks and Recreation Master Plan
RCDEH	Riverside County Department of Environmental Health
RCDMC	Resource Conservation District of Monterey County
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RFS	Renewable Fuel Standard
RMC	Riverside Municipal Code
rms	root mean square
ROG	Reactive organic gas
RTP	regional transportation plan
RUDG	Regional Urban Design Guidelines (FOR A)
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SEMS	Standardized Emergency Management System
SO _x	sulfur oxide
SPRR	Southern Pacific Railroad
SQMP	Stormwater Quality Management Program
SR	State Route
SRA	source receptor area
SSC	Species of Special Concern
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAMC	Transportation Agency of Monterey County
U.S.	United States
UPD	University Police Department
USC	United States Code

Transportation Agency for Monterey County
Fort Ord Regional Trail and Greenway Project

USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geologic Service
UST	underground storage tank
UXO	unexploded ordinance
VdB	vibration decibels
VHFHSZ	Very High Fire Hazard Severity Zones
VMT	vehicle miles travelled
VOC	volatile organic compound
WDR	water discharge requirements
WDR	Waste Discharge Requirements
WQS	Water Quality Standards
WSA	Water Supply Assessment

Executive Summary

This document is a project-specific Environmental Impact Report (EIR) for the proposed Fort Ord Regional Trail and Greenway (FORTAG or Trail) project (proposed project). This section summarizes the characteristics of the proposed project, alternatives to the proposed project, and the environmental impacts and mitigation measures associated with the proposed project.

Project Synopsis

Lead Agency

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Project Description

This EIR has been prepared to examine the potential environmental effects of FORTAG. The following is a summary of the full project description, which can be found in **Section 2, Project Description**.

The FORTAG project would involve the phased construction of a multi-use trail in northwestern Monterey County, generally encircling the cities of Seaside, Del Rey Oaks, Monterey, and Marina and the California State University, Monterey Bay (CSUMB) campus. The proposed alignment includes approximately 28 miles of new paved trail, primarily on the inland side of State Route 1 (SR 1). The Trail would accommodate pedestrians and bicyclists of all abilities. Within some segments the proposed alignment would include an adjacent four- to eight-foot side path separated from the main path to accommodate equestrian use. Dogs would be allowed on-leash throughout the system. The estimated number of Trail users would be between 1,000 and 3,000 daily, with the highest usage occurring on the CSUMB campus and near the Monterey Bay Coastal Recreation Trail (Coastal Rec Trail) (Powell 2019).

The majority of the Trail would be a 12-foot-wide paved path, with a two-foot-wide unpaved shoulder on both sides, for a total of 16 feet in width. For approximately 1.3 miles of the Trail (4.6 percent of the total proposed alignment), FORTAG would include an adjacent four- to eight-foot wide side path, separated from the paved path, which would permit equestrian use. The side path would be composed of compacted native soil and separated from the paved path by a minimum of four feet. A small portion of the Trail (approximately 2,000 feet or one percent) would be developed

on existing paved roadways in two locations: in Del Rey Oaks on Angelus Way, between Rosita Road and Del Rey Gardens; and in Marina on Beach Road, between Del Monte Boulevard and De Forest Road. Where space allows, the Trail would be surrounded by an open space greenway buffer on both sides.

The proposed alignment, when combined with Coastal Rec Trail, would generally form three loops that roughly encircle the City of Marina, the CSUMB campus, and the City of Seaside, respectively.

Project Characteristics

The FORTAG corridor is organized into seven segments, each of which is illustrated in **Figure 2-7** and summarized in **Table 2-1** in **Section 2, Project Description**. There are several design options being considered in some of the segments, including for the alignment itself, as well as for roadway crossings. These design options are described in the segment descriptions and shown in **Figure 2-8** through **Figure 2-10** in **Section 2, Project Description**.

The proposed trail alignment would cross public roadways in several locations. Most of these crossings would consist of at-grade, requiring improvements and modifications, such as roadway and lane modifications; construction of roundabouts, medians, curb extensions, warning devices, and traffic control devices; and enhanced safety lighting, signing and striping. The Trail could include a certain number of grade-separated crossings, including undercrossings and pedestrian/bicycle bridges, if such design options are selected. The locations of crossings are shown in **Figure 2-11** in **Section 2, Project Description**. **Table ES-1** summarizes the project characteristics.

Table ES-1 Project Characteristics

Location	Northwestern Monterey County
Jurisdictions	Del Rey Oaks, Marina, Monterey, Seaside, Monterey County, CSUMB, Coastal Commission
Trail Length	Approximately 28 miles
Trail Segments	Northern Marina, Northern Loop, CSUMB Loop North, CSUMB Loop South, National Monument Loop, Canyon Del Rey/SR218, Ryan Ranch

Trail Design

FORTAG would meet Americans with Disabilities Act (ADA) requirements for Class I bike paths throughout the entirety of the off-street portion of the Trail (approximately 99 percent of the total trail length). Class I bike paths are facilities for the exclusive right of way of bicycles and pedestrians, with motor vehicle use prohibited (California Department of Transportation [Caltrans] 2015).

On-street trail segments would match the grade of the existing road, and would be Class II, Class III, or Class IV bike facilities. Class II bike facilities are bike lanes established along streets, Class III bike facilities are preferred bike routes designated on streets shared with motor vehicle traffic, and Class IV bike facilities are separated bikeways for exclusive use by bicycles.

The Trail would be paved with asphalt, with the exception of the Frog Pond Wetland Preserve area in the Canyon Del Rey/SR 218 segment, where the Trail would be composed of a stable, permeable surface in lieu of asphalt pavement. Approximately 2,000 feet of the Trail would be on existing paved roadways in two locations. A total of approximately nine miles of the Trail would follow existing roadways or paths; 18 miles would be located on land without a pre-existing trail or roadway. The typical Trail cross-section would be 12 to 16 feet wide, with an 8 to 12-foot-wide paved path and a 2-foot wide unpaved shoulder on both sides of the Trail. The greenway would be

up to 150 feet on both sides, or 300-foot-wide total. The greenway would be narrower in certain locations depending on terrain and right-of-way available. Additional detail regarding the Trail alignment and design is provided in **Section 2, Project Description**.

In the Frog Pond Wetland Preserve in Del Rey Oaks, the total Trail width would be reduced to eight feet due to the sensitive natural resources in the area. Improvements would only be made to the 0.3 mile of trail through Frog Pond that coincides with the FORTAG alignment.

Trail Amenities and Features

FORTAG would include amenities such as rest areas, benches, and shade structures along the project alignment, except for in the Marina Municipal Airport designated safety zones. Amenity areas would be located at Trail access points and key view points along the proposed alignment adjacent to the Trail in a four-foot wide area with a stable, permeable surface or compacted native soil. Viewpoint and trailhead amenities would not be constructed in wetlands or other sensitive habitats. In addition, wayfinding signage and interpretative signage would be installed throughout the Trail at junction points, trailheads, viewpoints, and intersections. Lighting would be provided for some sections of FORTAG, depending on the context. The majority of FORTAG would not be bounded by fencing.

Parking and Site Access

No new parking spaces or formal staging areas would be developed. Trail users arriving by motor vehicle would utilize existing parking lots and street parking to access the Trail. At existing unimproved parking areas that would serve the Trail, improvements may occur in order to improve safety and confine parking to prevent habitat disruption or Trail encroachments. Improvements would be limited to fencing or other barriers between the Trail and parking; no paving or other improvements to the parking areas would be constructed.

Project Operation and Maintenance

Because FORTAG would traverse multiple jurisdictions and would be owned, implemented and operated by various entities, a Master Agreement (MA) between TAMC and each underlying jurisdiction will be entered into that identifies maintenance responsibilities, trail use rules, and other considerations that require coordination between the various agencies and groups involved in FORTAG's development and management. Rules and restrictions for Trail use may vary by jurisdiction. The specific enforceable mitigation measures any applicable rules for each jurisdiction, as agreed upon in conjunction with TAMC through a series of Supplemental Agreements to the MA as each segment is constructed. Most segments of the Trail would be parallel to or nearby existing roads, and no gates are proposed as part of the project. Therefore, most segments of the Trail would be open 24 hours daily. However, the exact hours of operation could be modified by the jurisdictions in which individual segments occur.

Construction

The first phase of FORTAG is anticipated to be a portion of the Canyon del Rey/SR 218 segment that has been awarded federal funding through the Active Transportation Program (ATP). Engineering-level design for the first phase of FORTAG is estimated to begin in 2020, with construction (for this phase) occurring in 2021/2022. Additional construction is expected to occur over time and could continue for several years, depending upon funding availability and participation of the underlying

jurisdiction. A total project construction schedule has not been finalized and is subject to funding availability and other considerations.

Project Objectives

1. Function as an active transportation artery for commuting and recreation, providing a safe, accessible, and separated alternative to motorized travel that reduces vehicle trips and associated emissions.
2. Connect people and disadvantaged communities to open space and recreational activities from their homes, workplaces, and hospitality bases.
3. Enhance connections between the former Fort Ord, Monterey Peninsula, and Salinas Valley communities, and provide additional opportunities for physical exercise and stress reduction for residents and visitors.
4. Utilize existing built trails and roadways where possible to minimize impact to the natural environment while maintaining gentle grades for accessibility and providing access to viewpoints.
5. Provide interpretative and educational opportunities for trail users to experience and learn about the historic military use of the former Fort Ord, biological and other natural resources, and the Monterey Bay coast.
6. Utilize public lands where possible and encourage the incorporation of the Trail into planning and future development.
7. Create economic benefits from associated retail, hospitality, and competitive events.

Alternatives

Pursuant to Section 15126.6 of the *CEQA Guidelines*, the following alternatives to the proposed project are analyzed in this EIR:

- Alternative 1: No Project
- Alternative 2: Increased Use of Existing Roadways
- Alternative 3: Substitute Crossings
- Alternative 4: Frog Pond Wetland Preserve Northerly Alignment

Alternative 1 (No Project) assumes that the FORTAG corridor would remain in present day conditions. There would be no new 28-mile trail; no new undercrossings, overcrossings, or roundabouts; and no improvements to existing, informal parking areas. It is expected these existing parking areas and other existing trails in the area (i.e., outside of and crossing through the project corridor) would continue to be used as they currently have been by people accessing portions of the former Fort Ord, including by mountain bikers and equestrians.

Alternative 2 (Existing Roadway Alignment) would modify the Trail alignment to reduce the amount of area disturbed as a result of trail construction. Under Alternative 2, four specific areas of the FORTAG alignment would be modified to be placed along existing roadways, which would result in an approximately 18 percent reduction in the total miles provided under Alternative 2 (22.7 miles) compared to the FORTAG project (27.8 miles). The Ryan Ranch segment would be completely removed from the alignment. The total area of disturbance would be approximately 37.8 acres,

which would be a reduction of approximately 17.6 acres (or approximately 32 percent) as compared to the proposed project.

Alternative 3 (Substitute Crossings) would eliminate the two overcrossings located at Reservation Road/Blanco Road in the Northern Loop segment and at 8th Street/Imjin Road in the CSUMB Loop North segment, and adjust the alignment at the South Boundary Road crossing on the Ryan Ranch segment. The elimination of the two overcrossings would require 1.33-mile of additional trail length at Blanco Road and an additional 0.32-mile of trail at Imjin Road. The adjusted alignment at the South Boundary Road crossing would require 0.04-mile of additional trail length. Alternative 3 would provide a total of 29.2 miles (five percent increase), compared to 27.8 miles for the proposed project. The remainder of the Alternative 3 alignment would remain the same as the FORTAG project.

Alternative 4 (Frog Pond Wetland Preserve Northerly Alignment) would modify the portion of the alignment extending through the Frog Pond Wetland Preserve, so it follows the existing trail through the northern portion of Frog Pond, rather than existing trail through the southern portion. The Alternative 4 alignment north of Frog Pond would require 0.13-mile (688 feet) of additional trail length than the proposed project alignment. The total length of Alternative 4 would be approximately 27.9 miles, compared to 27.8 miles for the FORTAG project; a 0.4 percent increase in trail length. The remainder of the Alternative 4 alignment would remain the same as the FORTAG project.

Areas of Known Controversy

The primary area of controversy known to the Lead Agency is associated with the proposed alignment through Angelus Way and Frog Pond Wetland Preserve in Del Rey Oaks. Alternatives were considered to avoid impacts to these areas. Refer to **Section 6, Alternatives**, for the complete alternatives analysis. Responses to the Notice of Preparation of a Draft EIR and input received at the EIR scoping meetings are summarized in **Table 1-1** found in **Section 1, Introduction**.

Issues to be Resolved

Responses to the Notice of Preparation of a Draft EIR and input received at the EIR scoping meetings are summarized in **Table 1-1** found in **Section 1, Introduction**.

Issues Not Studied in Detail in the EIR

Section 1.4 lists the environmental topics evaluated in this EIR. Detailed evaluation in this EIR was not necessary for all environmental checklist items. Items that were determined not to be significant are discussed in **Section 4.18, Effects Found Not to be Significant**, and include mineral resources, population and housing, and recreation, as well as one significance criteria for geology and soils.

Summary of Impacts and Mitigation Measures

Table ES-2 summarizes the environmental impacts of the proposed project, proposed mitigation measures, and residual impacts (the impact after application of mitigation, if required). Each impact statement contains a statement of the significance determination of the environmental impact as follows:

- **Significant and Unavoidable.** An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per Section 15093 of the CEQA Guidelines.
- **Less than Significant with Mitigation Incorporated.** An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under Section 15091 of the *CEQA Guidelines*.
- **Less than Significant.** An impact that may be adverse, but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact:** The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

The implementing entity referenced in the EIR mitigation measure refers to the agency that would execute the mitigation measure, which may be TAMC or any of the applicable jurisdictions depending on the agency implementing the Trail segment.

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measure (s)	Residual Impact
Aesthetics		
<p>Impact AES-1. The project would have a substantial adverse effect on a scenic vista where overcrossing and undercrossing components are installed. This impact would be less than significant with mitigation.</p>	<p>AES-1 Design Structures to be Visually Unobtrusive. For all FORTAG overcrossings and undercrossings, structural design shall be compatible with the surrounding landscape. Overcrossings shall be designed with visual permeability to the extent feasible. Openings shall provide viewing to frame the viewshed. Materials used shall be visually light, with natural-appearing materials and earth-toned colors compatible with the viewshed. Undercrossing entrances and exits shall include materials with textures and forms that relate to the immediate surroundings. Where feasible, install hardscaping that is of natural materials, landscaping that is compatible with the local natural plant palette, or other design features that soften the entrances and exits as they transition into and out of sloped areas. Surfaces shall be graffiti-resistant and readily repaired from graffiti. Specific design features shall be included in the final plan set and subject to implementing entity review and approval, prior to the initiation of construction. The implementing entity for any segment containing an overcrossing or undercrossing shall review the design plans for these structures to ensure they meet these requirements prior to issuance of building permits.</p>	<p>Less than significant</p>
<p>Impact AES-2. The project would not substantially damage scenic resources within a state scenic highway or any route proposed locally for scenic corridor designation. This impact would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact AES-3. The proposed retaining walls, undercrossings, overcrossings, and Trail amenities could change the visual character of the public views of the site where the trail alignment is in non-urbanized areas, potentially causing significant impact. In urban/suburban areas, the project would not conflict with applicable zoning, and would support goals and policies in adopted general plans; where no regulation or guidance is in place, the project would be subject to the mitigation below. Overall, the impact would be less than significant with mitigation.</p>	<p>AES-1 Design Structures to be Visually Unobtrusive. <i>Mitigation Measure AES-1</i> text is included under Impact AES-1 above.</p> <p>AES-3 Amenity Design. Trail amenities such as kiosks, shade structures, and other ancillary structures shall be designed to be compatible with the natural environment or surrounding community character. Reflective and glare-producing materials shall be prohibited, and muted finishes encouraged. The color and texture of armoring materials shall be visually compatible with the appearance of the surrounding area. These design features shall be included in the final plan set prior to the initiation of construction for each Trail segment, and shall be approved by the implementing entity prior to permit approval.</p>	<p>Less than significant</p>

Impact	Mitigation Measure (s)	Residual Impact
<p>Impact AES-4. Potential new lighting in some FORTAG segments would not substantially adversely affect nighttime views or create glare hazards. This impact would be less than significant.</p>	<p>AES-4 Install Dark Sky-Compliant Lighting Prior to Operation. The project shall employ dark sky-compliant lighting for all Trail lighting, except where the Trail crosses existing roadways and shielded safety lighting is necessary to eliminate conflict zones with vehicles. This style of lighting minimizes the release of light upwards into the atmosphere or outward past the Trail path, in part, with full cut-off luminaires.</p>	<p>Less than significant</p>
<p>Agricultural and Forestry Resources</p>		
<p>Impact AG-1. The project would convert Important Farmland to non-agricultural use if a design option is selected for the Northern Marina segment. This impact would be less than significant with mitigation.</p>	<p>AG-1 Implement Agricultural Land Conservation Measures. Prior to issuance of grading permits for any of the Northern Marina segment alignment design options, the implementing entity shall provide that for every 1.0 acre of FMMP Important Farmland (Prime Farmland, Unique Farmland, and Farmland of Statewide Importance) that would be converted to non-agricultural use as a result of Trail development, 1.0 acre of land of comparable agricultural productivity shall be preserved in perpetuity. The 1:1 mitigation shall be satisfied through one of more of the following:</p> <ol style="list-style-type: none"> a. Granting a perpetual conservation easement(s), deed restriction(s), or other farmland conservation mechanism(s) to Monterey County or another qualifying land management entity,¹ such as the Ag Land Trust, for the purpose of permanently preserving agricultural land. The required easement(s) area or deed restriction(s) shall total a minimum of 0.81 acre of FMMP Important Farmland, or as determined based on final design for the design option within the study area. The land covered by said off-site easement(s) or deed restriction(s) shall be located in Monterey County. b. Making an in-lieu payment to a qualifying entity, such as the Ag Land Trust, to be applied toward the future purchase of a minimum of 0.81 acre of FMMP Important Farmland in Monterey County, together with an endowment amount as may be required. The payment amount shall be determined by the qualifying entity or a licensed appraiser. c. Making an in-lieu payment to a qualifying entity, such as the Ag Land Trust, to be applied toward a future perpetual conservation easement, deed restriction, or other farmland conservation mechanism to preserve a minimum of 0.81 acre of FMMP Important Farmland in Monterey County. The amount of the payment shall be equal to 110 percent of the amount determined by the qualifying entity or a licensed appraiser. <p>Mitigation Measure AG-1 is based on an Important Farmland conversion total that includes the currently identified design option footprint near Charles Benson Road. If the project plans are refined within the project’s study area, the acreage included in the 1:1 mitigation may be adjusted accordingly, using the same calculation methodology as used in this analysis.</p>	<p>Less than significant</p>

¹ A qualifying entity would be an incorporated land conservancy that has demonstrable ability to purchase, hold, and manage agricultural conservation easements and that possesses accreditation from the Land Trust Alliance.

Impact	Mitigation Measure (s)	Residual Impact
<p>Impact AG-2. The project would not conflict with existing zoning for agricultural use or a Williamson Act contract. This impact would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact AG-3. The project would not conflict with zoning for, or cause rezoning of, forest land or timberland. Some loss of forest land could occur, but compliance with existing regulations would limit impacts to a less than significant level.</p>	<p>None Required</p>	<p>Less than significant</p>
<p>Impact AG-4. Trail construction and use could adversely affect agricultural operations within 50 feet of the Trail. This impact would be less than significant with mitigation.</p>	<p>AG-4(a) Implement Measures to Reduce Construction-Related Conflicts with Agricultural Operations. The following measures shall be implemented during construction to reduce potential conflicts between construction-related activities and agricultural operations; these measures are applicable wherever Trail construction activities occur within proximity to active agricultural operations, and shall be the responsibility of the implementing entity:</p> <ul style="list-style-type: none"> ▪ Staging for construction shall not occur in or directly adjacent to active agricultural areas and access to staging areas shall not block or inhibit access to existing farmland or farm access roads ▪ Where feasible, earth moving construction activities, such as grading and site preparation, within 50 feet of agricultural areas shall not occur during peak harvest periods ▪ When construction activities must occur during agricultural harvest (for example, to avoid nesting bird season), reasonable access to farmland, as determined by the implementing entity in consultation with the agricultural operators, shall be maintained; while precise timing cannot be specified, the implementing entity would endeavor to consult with the Farmers as early as feasible in the development of the construction schedule ▪ The construction contractor shall designate a contact for construction-related complaints. Contact information shall be provided to agricultural operators within 50 feet of the Trail, and shall be posted at construction staging areas. The contractor shall respond to complaints in a timely manner <p>These measures shall be included in final design plans for FORTAG segments adjacent to agriculture and implemented by the construction contractor. The implementing entity shall review plans to confirm inclusion of these measures and conduct spot-check monitoring during construction to ensure compliance.</p> <p>AG-4(b) Install Fencing and Signage Prior to Operation. Wherever the Trail is constructed within 50 feet of agricultural fields, fencing shall be installed between the Trail and adjacent agricultural operations. In addition, signs clearly indicating “No Trespassing” shall be installed at key locations near agricultural operations, to be identified by the implementing entity for Trail segments adjacent to agriculture in consultation with agricultural operators. The signs shall specify the legal ramifications for trespassing on adjacent properties. Additional signage shall be installed, where appropriate, reminding Trail users that</p>	<p>Less than significant</p>

Impact	Mitigation Measure (s)	Residual Impact
	<p>dogs must be on leash and remain on the trail, that littering is prohibited, and that dog waste must be removed.</p> <p>The implementing entity shall be responsible for ensuring the fencing and signs are properly maintained and shall replace fencing and signs when they are removed or damaged such that they are no longer functional.</p> <p>AG-4(c) Regularly Remove Solid Waste and Litter during Operation. Once the Trail is open for public use, the implementing entity shall ensure that solid waste is collected from trash receptacles on a reasonable, periodic basis to ensure that the trash and recycling receptacles located along the Trail do not overflow. The frequency shall be determined by the implementing entity and may vary seasonally, with more frequent collection in the summer months when the Trail is busy.</p> <p>The implementing entity shall also be responsible for collecting litter along the Trail. If litter leaves the Trail ROW, the implementing entity shall ensure that the litter in the vicinity of the Trail that is reasonably attributed to Trail use is removed within a reasonable time frame. Access to agricultural fields for the purpose of litter removal shall be coordinated with on-site agricultural operators, taking into account pesticide/fumigant restrictions and the goal of minimizing soil compaction or direct contact with crops. The implementing entity shall not enter adjacent agricultural fields without express permission by the agricultural operator. All solid waste and recyclable materials shall be properly disposed.</p>	
<p>Impact AG-5. Agricultural operations could adversely affect Trail users, which may result in conflicts with agricultural operations. This impact would be less than significant with mitigation.</p>	<p>AG-4(b) Install Fencing and Signage Prior to Operation. <i>Mitigation Measure AG-4(b)</i> text is included under Impact AG-4 above.</p>	<p>Less than significant</p>
Air Quality		
<p>Impact AQ-1. The project would not conflict with or obstruct implementation of the adopted MBARD AQMP. This impact would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact AQ-2. The project would not result in a cumulatively considerable net increase of any criteria pollutant. This impact would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact AQ-3. The project would not expose sensitive receptors to substantial pollutant concentrations. This impact would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>

Impact	Mitigation Measure (s)	Residual Impact
<p>Impact AQ-4. The project would potentially create objectionable odors affecting a substantial number of people. This impact would be less than significant with mitigation.</p>	<p>Mitigation Measure AQ-4: Install Dog Waste Facilities. Trail construction shall include installation of dog waste disposal bag dispensers with a waste receptacle at every amenity area where trash cans are provided. Waste disposal and bag refills shall be incorporated into the Master Agreement for Trail maintenance through Supplemental Agreements.</p>	<p>Less than significant</p>
<p>Biological Resources</p>		
<p>Impact BIO-1. The proposed project would have a substantial adverse effect on species identified as a candidate, sensitive, or special status. Impacts would be less than significant with mitigation incorporated.</p>	<p>BIO-1(a) Conduct Special Status Plant Species Surveys. Prior to issuance of grading permits for each individual segment, surveys for special status plants shall be completed in all natural vegetation communities and in undeveloped areas (including ruderal, and non-native habitats). The surveys shall be floristic in nature and shall be seasonally timed to coincide with the target species identified in the project-specific biological analysis. All plant surveys shall be conducted by a qualified biologist during the blooming season prior to any ground disturbance. All special status plant species identified shall be mapped onto a site-specific aerial photograph or topographic map with the use of Global Positioning System (GPS) unit. Surveys shall be conducted in accordance with the most current protocols established by the CDFW, USFWS, and the local jurisdictions if said protocols exist. A plant survey report shall be prepared that: 1) outlines the methodology of surveys and qualifications of surveying biologists; 2) presents the results of the surveys; 3) presents an analysis of potential impacts to non-listed species and a determination of whether or not those impacts could result in jeopardy of a local or regional population; 4) presents a summary of listed species that would be impacted including numbers of individuals and/or acres of occupied habitat; 5) presents the required compensatory mitigation; and 6) recommends any additional tasks that would be required to meet the conditions of <i>Mitigation Measures BIO-1(b) and BIO-1(c)</i>. A report of the survey results shall be submitted to the implementing entity. The CDFW and/or USFWS may also require documentation of surveys for consultation purposes. If special status plants are identified within or adjacent to proposed disturbance areas, <i>Mitigation Measures BIO-1(b) and/or BIO-1(c)</i> shall be implemented. The first of the focused protocol rare plant surveys were completed for the Canyon Del Rey/SR 218 segment, the CSUMB Loop South segment and the CSUMB Loop North segment in the 2019 blooming period. Completed rare plant surveys need not be repeated if construction of a segment occurs within three years of the survey's completion.</p> <p>BIO-1(b) Implement Special Status Plant Species Avoidance, Minimization, and Mitigation. If federally and/or state listed or CRPR List 1B or 2 species are found during special status plant surveys [pursuant to <i>Mitigation Measure BIO-1(a)</i>], and listed species would be directly and/or indirectly impacted, or there would be a population-level impact to non-listed species, then the Trail shall be re-aligned within the study area to avoid impacting those plant species where and if feasible. Listed and other special status plant occurrences that are not within the immediate disturbance footprint but are located within 50 feet of disturbance limits shall be demarcated as an Environmentally Sensitive Area (ESA), and shall have bright orange protective fencing installed a minimum of 30 feet beyond their extent prior to and during construction activities. Reduction of avoidance buffer distance must be approved by a qualified biologist. No construction activity shall be allowed within these avoidance areas. To avoid encroachment within</p>	<p>Less than significant</p>

Impact	Mitigation Measure (s)	Residual Impact
	<p>ESAs, the limits of work shall be clearly shown on all project plans and demarcated on site with high visibility fencing. Work in the vicinity of such ESAs shall be monitored by a qualified biologist to ensure no encroachment. If significant impacts to special status plants cannot be avoided, <i>Mitigation Measure BIO-1(c)</i> shall be implemented.</p> <p>BIO-1(c) Prepare Habitat Mitigation and Monitoring Plan. If federally and/or state listed plants or non-listed special status plant populations [or sensitive natural communities or waters of the U.S. and/or State; see <i>Mitigation Measures BIO-2(b)</i> and <i>BIO-3(b)</i>, respectively] cannot be avoided and will be impacted by development of the proposed project, all impacts shall be mitigated by the implementing entity at a minimum ratio of 1:1 for occupied habitat area as a component of habitat restoration or through compensatory mitigation. If the Monterey County Regional Conservation Investment Strategy (RCIS) is adopted at the time of project implementation, mitigation may be facilitated through the RCIS program. A habitat mitigation and monitoring plan (HMMP) shall be prepared by a qualified biologist and submitted to implementing entity for review and approval. (Note: if a federally and/or state listed plant species will be impacted, USFWS and/or CDFW will likely require a restoration plan to be submitted for their review in support of federal and/or state incidental take authorization[s]). The HMMP shall include, at a minimum, the following components:</p> <ul style="list-style-type: none"> ▪ Description of the project/impact site (i.e., location, responsible parties, areas to be impacted by habitat type) ▪ Goal(s) of the compensatory mitigation project [type(s) and area(s) of habitat to be established, restored, enhanced, and/or preserved; specific functions and values of habitat type(s) to be established, restored, enhanced, and/or preserved] ▪ Description of the proposed compensatory mitigation site (location and size, ownership status, existing functions and values) ▪ Implementation plan for the compensatory mitigation site (rationale for expecting implementation success, responsible parties, schedule, site preparation, planting plan) ▪ Maintenance activities during the monitoring period, including weed removal as appropriate (activities, responsible parties, schedule) ▪ Monitoring plan for the compensatory mitigation site, including no less than quarterly monitoring for the first year (performance standards, target functions and values, target acreages to be established, restored, enhanced, and/or preserved, annual monitoring reports) ▪ Success criteria based on the goals and measurable objectives; said criteria to be, at a minimum, at least 80 percent survival of container plants and 30 percent relative cover by vegetation type ▪ An adaptive management program and remedial measures to address any shortcomings in meeting success criteria and/or to address catastrophic events such as wildfires ▪ Notification of completion of compensatory mitigation and agency confirmation ▪ Contingency measures (initiating procedures, alternative locations for contingency compensatory mitigation, funding mechanism) 	

Impact	Mitigation Measure (s)	Residual Impact
	<p>BIO-1(d) Conduct Special Status Wildlife Pre-Construction Surveys</p> <p><i>General Wildlife Surveys</i></p> <p>Pre-construction clearance surveys for northern California legless lizard, coast horned lizard, two-striped garter snake, western pond turtle and American badger shall be conducted within 14 days prior to the start of construction (including staging and mobilization) in areas of suitable habitat. For two-striped garter snake and western pond turtle, these areas are limited to the Canyon Del Rey/SR 218 segment. California legless lizard may be found in undeveloped areas throughout the project corridor. Coast horned lizard and American badger suitable habitats are limited to the Northern Marina, Northern Loop, National Monument Loop, Ryan Ranch, and Canyon Del Rey/SR 218 segments. The surveys shall cover the entire disturbance footprint plus a minimum 200-foot buffer within suitable habitat, where permissible, and shall identify all special status animal species that may occur on-site. California legless lizard, coast horned lizard, and two-striped garter snake shall be relocated from the site to a safe location within suitable habitat as near to the project area as possible by a qualified biologist.</p> <p><i>Burrowing Owl Surveys</i></p> <p>A qualified biologist shall conduct pre-construction clearance surveys prior to ground disturbance activities within suitable natural habitats and ruderal areas throughout the Trail segments to confirm the presence/absence of active burrowing owl burrows. The surveys shall be consistent with the recommended survey methodology provided by CDFW (2012). Clearance surveys shall be conducted within 30 days prior to construction and ground disturbance activities. If no burrowing owls are observed, no further actions are required. If burrowing owls are detected during the pre-construction clearance surveys, the following measures shall apply:</p> <ul style="list-style-type: none"> ▪ Avoidance buffers during the breeding and non-breeding season shall be implemented in accordance with the CDFW (2012) and Burrowing Owl Consortium (1993) minimization mitigation measures. ▪ If avoidance of burrowing owls is not feasible, then additional measures such as passive relocation during the nonbreeding season and construction buffers of 200 feet during the breeding season shall be implemented, in consultation with CDFW. In addition, a Burrowing Owl Exclusion Plan and Mitigation and Monitoring Plan shall be developed by a qualified biologist in accordance with the CDFW (2012) and Burrowing Owl Consortium (1993). <p><i>Smith's Blue Butterfly Host Plant Surveys and Mitigation</i></p> <p>Prior to grading and construction in undeveloped areas throughout the Trail alignment, an approved biologist shall conduct surveys for seacliff buckwheat (<i>Eriogonum parvifolium</i>) and seaside buckwheat (<i>Eriogonum latifolium</i>), host plants of Smith's blue butterfly in areas of suitable habitat. These surveys can be completed as part of the rare plant surveys conducted under <i>Mitigation Measure BIO-1(a)</i>.</p> <p>If no Smith's blue butterfly host plants are located, no further action is required. If host plants are located within proposed disturbance areas, they shall be avoided if feasible. If avoidance is not feasible, the plants shall be buffered by a minimum of 25 feet and demarcated as an ESA with high-contrast construction flagging, and no construction activity shall be allowed within the buffered avoidance area. If</p>	

Impact	Mitigation Measure (s)	Residual Impact
	<p>construction would be required within the buffer area, a biological monitor shall be present for all work within the buffer avoidance area to ensure no direct impacts to host plants.</p> <p>If avoidance is not feasible, focused surveys shall be conducted to determine presence or absence of the butterfly species. This may include surveys during the adult flight period (mid-June through early September), and/or inspection of host plants for all life forms (egg, larva, pupa, and adult). If individuals of any life stage that may be impacted by the proposed project are detected during focused surveys, the plant cannot be disturbed without take authorization from USFWS. Only a USFWS permitted biologist would be allowed to relocate occupied host plants.</p> <p><i>California Tiger Salamander</i></p> <p>Prior to grading and construction in natural areas of all segments containing suitable upland habitat, a qualified biologist shall conduct a preconstruction survey for CTS. The survey shall include a transect survey over the entire project disturbance footprint (including access and staging areas), and mapping of burrows that are potentially suitable for salamander occupancy. If any CTS is detected, no work can be conducted until the individual leaves the site of their own accord, unless federal and state “take” authorization has been issued. Typical preconstruction survey procedures, such as burrow scoping and burrow collapse, cannot be conducted without federal and state permits. If any life stage of CTS is found within the survey area, the USFWS and CDFW shall be consulted to determine the appropriate course of action to comply with the FESA and CESA, if permits are not already in place at the time of construction.</p> <p><i>California red-legged Frog</i></p> <p>Within 24 hours prior to grading and construction in undeveloped areas of the Ryan Ranch, Canyon Del Rey/SR 218, National Monument Loop, Northern Loop, and Northern Marina segments, a clearance survey for CRLF shall be conducted by a qualified biologist. If a CRLF is detected during the survey, the implementing entity shall consult with the USFWS. Project activities shall not occur until the individual has left the site on its own accord. If CRLFs are to be relocated, a formal take authorization issued by the USFWS must be obtained prior to relocation. No CRLFs shall be relocated or handled without express permission from USFWS.</p> <p><i>Monterey Dusky-footed Woodrat</i></p> <p>A qualified biologist shall conduct a pre-construction survey for woodrats no more than 14 days prior to construction. Middens within 50 feet of project activity that would not be directly impacted by project activity shall be demarcated with a 10-foot avoidance buffer and left intact. If a midden(s) that cannot be avoided are found during the pre-construction survey, an approved biologist shall monitor the dismantling of the midden by a construction contractor to assist with the goal of ensuring the individuals are allowed to leave the work areas unharmed before on site activities begin.</p> <p><i>Special Status Bats</i></p> <p>If trees of sufficient size and structure (i.e., mature trees with hollows and crevices) to support roosting bats are slated for removal during construction, a preconstruction bat emergence survey shall be</p>	

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	<p>conducted by a qualified biologist to determine if the tree functions as a roost. Emergence times may vary dependent on species, weather conditions, and time of year and shall occur when conditions are favorable (higher temperatures, high humidity, low wind, no precipitation), and timed to capture bat emergence (typically occurring between sunset and sunrise). Maternity season for bats ranges from May 1 through August 31. After September, bats begin to enter their hibernaculum stage in preparation for colder months and may not emerge from their roosts, and emergence surveys would not be conclusive.</p> <p>The specific timelines for implementation of management of roosting bats within the project corridor would be determined based upon the results of the emergence surveys. Once the species has been determined, areas to relocate roosts to may also be identified (i.e. other areas away from tree removal area). Relocation sites away from the project impact area can be enhanced with additional bat boxes or structures depending on the species. Alternative bat roosting habitat shall be installed as far in advance of the humane eviction/exclusion as possible to increase likelihood of their discovery and use by the bats being evicted. Therefore, the installation of alternative bat roosting structures shall be initiated as soon as active roosts are identified. After alternative roost structures have been installed, eviction measures can be implemented. Install exclusion netting and socks (specific for bats to prevent re-entry) at roost openings to allow bats to exit but prevent their re-entry into the roost. Nets and socks would have to be regularly checked to prevent wildlife entrapment. Exclusion devices shall be left in place and monitored daily for seven days to confirm the exclusion is successful prior to tree removal. Tree removal shall be monitored by a qualified bat biologist in case any further individual relocation is necessary.</p> <p><i>Reporting</i></p> <p>A report of all pre-construction survey results shall be submitted to the implementing entity for its review prior to the start of demolition. The report shall include a description of the survey methodology for each species, the environmental conditions at the time of the survey(s), the results of the survey, any requirements for addressing special status species identified during surveys, and the biological qualifications of the surveyors. The report shall be accompanied by maps and figures showing the location of any special status species occurrences and associated avoidance buffers.</p> <p>BIO-1(e) Conduct Nesting Bird Preconstruction Surveys. Ground disturbance and vegetation removal activities shall be restricted to the non-breeding season (September 16 to January 31) for all segments when feasible. For ground disturbance and vegetation removal activities occurring in all project areas during the bird nesting season (February 1 to September 15), general pre-construction nesting bird surveys shall be conducted by a qualified biologist for all migratory birds, including special status birds and raptors (i.e., northern harrier, Cooper’s hawk, horned lark, tricolored blackbird and white-tailed kite) not more than 14 days prior to construction activities involving ground clearing, vegetation removal/trimming, or building demolition. The surveys shall include the disturbance area plus a 200-foot buffer around the site if feasible, a 500-foot buffer for tricolored blackbird and white-tailed kite. If active nests are located, an appropriate avoidance buffer shall be established within which no work activity will be allowed which would impact these nests. The avoidance buffer would be established by the qualified biologist on a case-by-case basis based on the species and site conditions. In no cases shall the buffer be</p>	

Impact	Mitigation Measure (s)	Residual Impact
	<p>smaller than 50 feet for non-raptor bird species, 200 feet for raptor species, a 500-foot buffer for tricolored blackbird and white-tailed kite. Larger buffers may be required depending upon the status of the nest and the construction activities occurring in the vicinity of the nest. If fully protected White-tailed kites are documented nesting within 500 feet of construction activities, CDFW shall be consulted on appropriate avoidance and minimization methods, which would likely include work restrictions within 500 feet of the nest, biological monitoring for activity within the nest' line-of-sight, etc. The buffer area(s) shall be closed to all construction personnel and equipment until juveniles have fledged and the nest is inactive. The implementing entity-approved biologist shall confirm that breeding/nesting is completed and young have fledged the nest prior to removal of the buffer.</p> <p>BIO-1 (f) Implement Biological Resources Avoidance and Minimization. The following measures shall be applied to all segments to avoid impacts to sensitive species and biological resources. The implementing entity shall be responsible for implementing selected measures.</p> <ul style="list-style-type: none"> ▪ Ground disturbance shall be limited to the minimum necessary to complete the project. The limits of disturbance for each construction phase shall be flagged. Areas of special biological concern within or adjacent to the limits of disturbance shall have highly visible orange construction fencing installed between said area and the limits of disturbance. ▪ All construction occurring within or adjacent to natural habitats that may support Federally and/or State listed endangered/threatened species, State fully protected species, and/or special status species shall have a qualified biological monitor present during all initial ground disturbing/vegetation clearing activities. ▪ No endangered/threatened species shall be captured/handled, relocated, harmed, or harassed without express written permission from the CDFW and/or USFWS. ▪ If at any time during construction an endangered, threatened, or fully protected species enters the construction site or otherwise may be impacted, all construction activities shall cease. A CDFW/USFWS-approved biologist shall document the occurrence and consult with the CDFW and USFWS, as appropriate, to determine whether it was safe for project activities to resume. ▪ At the end of each workday, excavations shall be secured with cover or a ramp provided to prevent wildlife entrapment. ▪ All trenches, pipes, culverts or similar structures shall be inspected for animals prior to burying, capping, moving, or filling. ▪ If night work is required, all construction lighting shall be pointed down and directed only on the work area. ▪ The implementing entity shall approve one or more qualified biologists to oversee and monitor biological compliance for the project. At least one qualified biologist shall be present during all initial ground disturbing activities, including vegetation removal to recover special status animal species unearthed by construction activities. 	

Impact	Mitigation Measure (s)	Residual Impact
	<p>BIO-1(g) Implement California Tiger Salamander Compensatory Mitigation. If California tiger salamander habitat cannot be avoided, the implementing entity shall preserve off-site suitable upland habitat and/or purchase credits at an approved conservation bank as compensatory mitigation to offset impacts to suitable California tiger salamander upland habitat. The compensatory mitigation shall incorporate the conditions and compensatory mitigation requirements specified in the incidental take permit(s) and/or incidental take statement that could be issued by CDFW and USFWS for this project but shall meet the minimum standards specified in this measure. Compensatory mitigation shall be provided at a ratio of not less than 0.5:1 (area mitigated: area impacted) for Categories 3 and 4 upland habitat and 1:1 for Categories 1 and 2 habitat. Compensatory mitigation shall occur off-site. Areas proposed for preservation must contain verified California tiger salamander habitat within 1.3 miles of a known breeding pond. The compensatory mitigation area(s) shall have a restrictive covenant (e.g., conservation easement) prohibiting future development/disturbance and shall be managed in perpetuity to encourage persistence and enhancement of the preserved target species. Compensatory mitigation lands cannot be located on land that is currently held publicly for resource protection, unless a portion of such land is degraded/destroyed or otherwise not functioning as pre-disturbance, intact natural habitat (e.g., abandoned agricultural field) and could be restored. The compensatory mitigation areas shall be managed by a conservation lands management entity or other qualified easement holder.</p> <p>The CDFW and organizations approved by CDFW that meet the criteria below may be considered qualified easement holders for those species for which the CDFW has regulatory authority. To qualify as a “qualified easement holder” a private land trust must at a minimum have:</p> <ol style="list-style-type: none"> 1. Substantial experience managing conservation easements that are created to meet mitigation requirements for impacts to special-status species; 2. Adopted the Land Trust Alliance’s Standards and Practices; and 3. A stewardship endowment fund to pay for its perpetual stewardship obligations. <p>Other specific conditions for qualified easement holders may be outlined in incidental take permit(s) and/or incidental take statement that could be issued by CDFW and USFWS for this project.</p> <p>The implementing entity shall determine whether a proposed easement holder meets these requirements. The implementing entity shall also be responsible for donating to the conservation easement holder fees sufficient to cover administrative costs incurred in the creation of the conservation easement (appraisal, documenting baseline conditions, etc.) and funds in the form of a non-wasting endowment to cover the cost of monitoring and enforcing the terms of the conservation easement in perpetuity. The amount of these administrative and stewardship fees shall be determined by the conservation easement holder in consultation with the implementing entity.</p> <p>Conservation easement(s) shall be held in perpetuity by a qualified easement holder (as defined above), and be subject to a legally binding agreement that shall: (1) be recorded with the County Recorder(s); and (2) contain a succession clause for a qualified easement holder if the original holder is dissolved.</p> <p>The following factors shall be considered in assessing the quality of potential mitigation habitat: (1)</p>	

Impact	Mitigation Measure (s)	Residual Impact
	<p>current land use, (2) location (e.g., habitat corridor, part of a large block of existing habitat, adjacency to source populations, proximity to potential sources of disturbance), (3) vegetation composition and structure, (4) slope, (5) soil composition and drainage, and (6) level of occupancy or use by all relevant species.</p> <p>To meet the requirement that the mitigation habitat is of value equal to, or greater than, the habitat impacted on the project site, the mitigation habitat must be either “suitable habitat” or “enhanced habitat” as described below:</p> <p><i>Suitable Habitat</i></p> <p>To meet the requirements for suitable habitat that provides equal or greater habitat value for listed animal species than the impacted habitat, the habitat must:</p> <ol style="list-style-type: none"> 1. Provide habitat for special status animal species, such that special status animal species populations can regenerate naturally when disturbances are removed; 2. Not be characterized by (or adjacent to areas characterized by) high densities of invasive species, such as yellow star-thistle, or species that might jeopardize habitat recovery and restoration; 3. Not contain hazardous wastes that cannot be removed to the extent that the site could not provide suitable habitat; and 4. Not be located on land that is currently publicly held for resource protection. <p><i>Enhanced Habitat</i></p> <p>If suitable habitat is unavailable, or in lieu of acquiring already suitable special status animal species habitat, the applicant may enhance potential habitat that:</p> <ol style="list-style-type: none"> 1. Is within an area with potential to contribute to habitat connectivity and build linkages between populations; 2. Consists of actively farmed land or other land containing degraded habitat that will support enhancement; 3. Supports suitable soils, slope, and drainage patterns consistent with special status animal species requirements; 4. Cannot be located on land that is currently held publicly for resource protection; and 5. Does not contain hazardous wastes or structures that cannot be removed to the extent that the site could not provide suitable habitat. <p><i>Enhanced Habitat Standards</i></p> <p>For enhanced habitat conditions to equal or exceed habitat conditions on the project site, the enhanced habitat shall meet the following habitat criteria: After five years, these sites must consist of suitable habitat or contain other habitat characteristics (e.g., small mammal burrows in upland habitat for California tiger salamander habitat , wetlands, ponds, etc.) that are consistent with the known ecology of the special status animal species to which compensatory mitigation is being applied and the habitat</p>	

Impact	Mitigation Measure (s)	Residual Impact
	<p>components for which the mitigation is compensating for.</p> <p>BIO-1(h) Provide Worker Environmental Awareness Program (WEAP). Prior to initiation of construction activities (including staging and mobilization) the implementing entity shall arrange for all personnel associated with project construction to attend WEAP training, conducted by an approved biologist, to aid workers in recognizing special status resources that may occur in the construction area. The specifics of this program shall include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction. All employees shall sign a form provided by the trainer indicating they have attended the WEAP and understand the information presented to them. The form shall be submitted to the implementing entity to document compliance.</p> <p>BIO-1(i) Perform Biological Monitoring. A qualified biological monitor shall be present for all ground clearing and vegetation removal in areas of natural vegetation within all segments. Daily monitoring activity shall include morning clearance sweeps for special status species prior to new ground disturbance or vegetation removal. In addition to general biological monitoring, a qualified CTS biologist shall be present during all work in suitable habitat on the Ryan Ranch, Canyon Del Rey/SR 218, National Monument Loop, Northern Loop, and Northern Marina segments to monitor specifically for CTS. The monitor shall have the authority to stop work if special status species are discovered on site or if special status species are at risk of harm as a result of project activity. A sufficient number of monitors shall be available to directly monitor ground clearing and vegetation removal at all times and to clear areas in advance of grading and vegetation clearing activity. The number of monitors shall be based on the type, location and extent of construction activity and the number of crews and crew locations working at any one time to ensure monitoring is effective in reducing impacts to special status species. The biological monitor shall capture and relocate any non-listed special status species to the closest suitable habitat. Listed species cannot be handled without prior federal and state “take” authorizations. The monitor(s) shall maintain daily monitoring logs and document all observations of special status species and all incidents of wildlife relocation. A final monitoring report shall be prepared to summarize the results of biological monitoring, including the total number of days of monitoring, all special status species observations, and the results of any wildlife relocations.</p> <p>BIO-1(j) Implement Wildlife Avoidance and Minimization. The following measures are required to avoid or minimize impacts to special status species in all Trail segments:</p> <ul style="list-style-type: none"> ▪ Activities onsite shall be restricted to daylight hours to the maximum extent possible. ▪ All trenches, pipes, culverts or similar structures shall be inspected for animals prior to burying, capping, moving, or filling. ▪ All construction occurring within/adjacent to the Northern Marina, Northern Loop, National Monument Loop, Ryan Ranch, and Canyon Del Rey/ SR 218 and segments (including riparian habitats and wetlands) shall be completed between April 1 and October 31, if feasible, to avoid impacts to 	

Impact	Mitigation Measure (s)	Residual Impact
	<p>California tiger salamander.</p> <ul style="list-style-type: none"> ▪ If federal or state listed species are detected during preconstruction surveys, the implementing entity shall consult with CDFW and/or USFWS. Construction activities shall not occur until the individual has left the site. If federal or state listed species are to be relocated to the nearest appropriate habitat, this can only occur if CDFW and/or USFWS have issued formal take authorization, and the relocation is conducted by a CDFW- and/or USFWS-approved biologist. No endangered/threatened species shall be captured and relocated without express permission from the CDFW and/or USFWS. ▪ If at any time during project activities an endangered/threatened species enters the work area or otherwise may be impacted by the project, all project activities shall cease. A qualified biologist shall document the occurrence and consult with CDFW and USFWS, as appropriate, to determine whether it was safe for project activities to resume. 	
<p>Impact BIO-2. The proposed project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. Impacts would be less than significant with mitigation incorporated.</p>	<p>BIO-2(a) Implement Sensitive Natural Community Avoidance Measures. The following measures shall be implemented for all Trail segments:</p> <ul style="list-style-type: none"> ▪ To the extent feasible, all trail construction activities, including access routes, staging areas, stockpile areas, and equipment maintenance are to be located outside of the limits of mapped sensitive habitats. Sensitive habitat areas shall be mapped by a qualified biologist and clearly shown on construction plans. Temporary fencing (e.g., silt fencing) shall be installed at the outermost edge sensitive habitats and shall not be disturbed except as required for trail construction. Vegetation removal shall be limited to the minimum extent necessary to achieve project objectives. Mature trees shall be retained wherever feasible and limbing of trees and shrubs in arroyo willow scrub and riparian forest, and coast live oak woodland should be favored in lieu of removal. When possible, during construction stumps and burls of native vegetation shall be retained to allow for re-sprouting following project completion. ▪ Arroyo willow riparian forest impacted by slope stabilization activities shall be minimized to the maximum extent feasible. Construction of retaining walls, slope contouring, and other stabilization techniques shall be limited to the footprint of the required work area. Silt fencing and other erosion control measures shall be placed immediately downslope to prevent sediments and debris from entering stream courses and degrading water quality. Bioengineering techniques (e.g. low crib walls, vegetation planting) shall be used as a slope stabilization approach, when feasible. <p>BIO-2(b) Develop and Implement a Biological Resources Mitigation and Management Plan for Impacts to Biological Resources Resulting from Trail Construction and Operation. A qualified (USFWS- and CDFW-approved) biologist shall prepare a project-specific Biological Resources Mitigation and Management Plan (MMP) for each segment individually to compensate for direct and indirect impacts to sensitive habitats, and other sensitive biological resources resulting from trail construction and operation. The MMP shall compensate for permanent loss of sensitive habitats, through the creation, restoration, and enhancement of in-kind sensitive habitat, as close to impacted areas as feasible within the study area, or on suitable preserve lands on the former Fort Ord.</p>	<p>Less than significant</p>

Impact	Mitigation Measure (s)	Residual Impact
	<p>To protect against the loss of ecological functions and values, compensatory mitigation shall re-create the following features of existing sensitive habitat that would be impacted by the proposed project: habitat mosaic, edge habitats, and proximity to wetlands and other waters.</p> <p>The Biological Resources MMP shall include the following:</p> <ul style="list-style-type: none"> ▪ Description of the Trail alignment including acreage of temporary and permanent impacts to central dune scrub, central maritime chaparral, coastal and valley freshwater marsh, Riparian woodlands, chamise chaparral, woolly-leaf manzanita, coyote brush scrub, sandmat manzanita chaparral, chamise – black sage chaparral, arroyo willow, and riparian woodlands, including the number and type of trees slated for removal. ▪ Acreage of temporary and permanent impacts to California tiger salamander upland, and dispersal habitat, smith’s blue butterfly habitat, habitat for species of special concern, and listed plant species habitat. ▪ Ecological functions and values assessment of sensitive habitats, including California tiger salamander habitat to determine suitable mitigation ratios. ▪ Goals of compensatory mitigation, including types and areas of sensitive habitat to be created, restored, and/or enhanced; number and type of trees to be replaced, specific functions and values of mitigation habitat types, mitigation ratios (created/restored/enhanced: impacted), and performance criteria. ▪ Such compensatory mitigation to be prioritized to occur as close to impacted areas as feasible and offset impacts of sensitive habitat types, or their functions and values. Consultation with USFWS and/or CDFW, may result in different mitigation areas and ratios. ▪ Location and acreage of sensitive habitat, including California tiger salamander, smith’s blue butterfly and listed plant species habitat, mitigation areas including ownership status, and existing functions and values of restored and/or enhanced sensitive habitats. ▪ Detailed sensitive habitat creation and/or restoration construction and planting techniques. ▪ Description and design of habitat requirements for sensitive wildlife known to occur in the study area and immediate surroundings (including but not limited to: California tiger salamander, smith’s blue butterfly, listed plant species, potential roosting bat species, and Monterey dusky-footed woodrat). ▪ Maintenance activities during the monitoring period including replanting native vegetation found within similar habitats and weed removal that avoid take of California tiger salamander and other sensitive wildlife species. ▪ Strategies to protect remaining sensitive habitats along the Trail corridor and surroundings from direct and indirect impacts from Trail users such as: <ul style="list-style-type: none"> ▫ Interpretive signage including specific information about sensitive habitats and species and “leave no trace” content, ▫ Green fencing (dense vegetative buffers consisting of plant species that deter human passage such 	

Impact	Mitigation Measure (s)	Residual Impact
	<p>as poison oak, Pacific blackberry, and stinging nettle) where appropriate, and</p> <ul style="list-style-type: none"> ▪ Long-term quantitative and qualitative monitoring and reporting, and documenting the ability to meet or surpass performance criteria. ▪ Adaptive management strategies to: <ul style="list-style-type: none"> ▫ Identify shortcomings in meeting performance standards; ▫ Ensure long-term viability of existing, enhanced, restored, and/or newly-created sensitive biological resources; ▫ Enhance ecological functions and values of sensitive habitat mitigation areas, including California tiger salamander habitat, smith’s blue butterfly and listed plant species; and ▫ Interpretive design features associated with the project to protect biological resources. <p>BIO-2(c) Implement Best Management Practices during Construction. The construction specifications for each Trail segment shall include the following BMPs to protect water quality and biological resources during project construction activities.</p> <ul style="list-style-type: none"> ▪ Minimize removal or disturbance of existing vegetation outside of the footprint of project construction activities [refer to <i>Mitigation Measures BIO-2(a)</i>]. ▪ Limit site access and parking, equipment storage and stationary construction activities to the designated staging areas to the maximum extent feasible. ▪ Prior to staging equipment on-site, clean all equipment caked with mud, soils, or debris from off-site sources or previous project sites to avoid introducing or spreading invasive exotic plant species. When feasible, remove invasive exotic plants from the Project area. All equipment used on the premises should be cleaned prior to leaving the site for other projects. ▪ Position all stationary equipment such as motors, pumps, generators, and/or compressors over drip pans. At the end of each day, move vehicles and equipment as far away as possible from any water body adjacent to the project site in a level staging area. Position parked equipment also over drip pans or absorbent material. ▪ If security fencing is installed around the construction site, allow for passage of wildlife to maintain a link between inland and coastal habitats including stream corridors during construction activities. Prohibit the use of plastic mesh safety fencing to prevent wildlife entrapment. ▪ Refuel and perform all vehicle and/or equipment maintenance off-site at a facility approved for such activities. ▪ To the greatest extent feasible, stabilize all exposed or disturbed areas in the project area. Install erosion control measures as necessary such as silt fences, jute matting, weed-free straw bales, plywood, straw wattles, and water check bars, and broadcasting weed-free straw wherever silt-laden water has the potential to leave the work site and enter the nearby streams. Prohibit the use of monofilament erosion control matting to prevent wildlife entanglement. Modify, repair, and/or replace erosion control measures as needed. 	

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	<ul style="list-style-type: none"> ▪ All nursery plants used in restoration shall be inspected for sudden oak death. Vegetation debris shall be disposed of properly and vehicles and equipment shall be free of soil and vegetation debris before entering natural habitats. Pruning tools shall be sanitized. <p>BIO-2(d) Implement Invasive Weed Prevention and Management Program. For activity that would occur within or adjacent to sensitive habitats, prior to start of construction an Invasive Weed Prevention and Management Program shall be developed by a qualified biologist to prevent invasion of native habitat by non-native plant species. A list of target species shall be included, along with measures for early detection and eradication. All disturbed areas shall be hydroseeded with a mix of locally native species upon completion of work in those areas. In areas where construction is ongoing, hydroseeding shall occur where no construction activities have occurred within six (6) weeks since ground disturbing activities ceased. If exotic species invade these areas prior to hydroseeding, weed removal shall occur in consultation with a qualified biologist and in accordance with the restoration plan. Landscape species shall not include noxious, invasive, and/or non-native plant species that are recognized on the Federal Noxious Weed List, California Noxious Weeds List, and/or California Invasive Plant Council Lists 1, 2, and 4. These requirements shall be included in all project plans and specifications.</p>	
<p>Impact BIO-3. The proposed project would result in impacts to State or Federally protected wetlands through direct removal, filling, hydrological interruption, or other means. Impacts would be less than significant with mitigation incorporated.</p>	<p>BIO-3(a) Conduct Jurisdictional Delineation for Canyon Del Rey/SR 218 Segment. A qualified biologist shall complete a jurisdictional delineation of all features along the Canyon Del Rey/SR 218 segment. The jurisdictional delineation shall determine the extent of the jurisdiction for CDFW, USACE, RWQCB, and/or CCC, and shall be conducted in accordance with the requirement set forth by each agency. The result shall be a preliminary jurisdictional delineation report that shall be submitted to the implementing agency, USACE, RWQCB, CCC, and CDFW, as appropriate, for review and approval. Jurisdictional areas shall be avoided to the maximum extent possible. If jurisdictional areas are expected to be impacted, then the RWQCB would require a Waste Discharge Requirements (WDRs) permit and/or Section 401 Water Quality Certification (depending upon whether or not the feature falls under federal jurisdiction). If CDFW asserts its jurisdictional authority, then a Streambed Alteration Agreement pursuant to Section 1600 et seq. of the CFGC would also be required prior to construction within the areas of CDFW jurisdiction. If the USACE asserts its authority, then a permit pursuant to Section 404 of the CWA would likely be required.</p> <p>BIO-3(b) Perform Restoration for Impacts to Waters and Wetlands. Impacts to waters and wetlands shall be mitigated through one or more options to meet the required amount of mitigation as required based on direct impacts from project development under the mitigation ratios outlined below. Mitigation for impacts to waters and wetlands can be achieved through the acquisition and in-perpetuity management of similar habitat or through the in-lieu funding of such through an existing mitigation bank. If the RCIS is adopted at the time of project implementation, mitigation may be facilitated through the RCIS program. Funding and management of internal mitigation areas can be managed internally. Funding and management of off-site mitigation lands shall be provided through purchase of credits from an existing, approved mitigation bank or land purchased by implementing entity and placed into a conservation easement or other covenant restricting development (e.g., deed restriction). Internal mitigation lands, or in lieu funding sufficient to acquire lands shall provide habitat at a 1:1 ratio for impacted lands,</p>	<p>Less than significant</p>

Impact	Mitigation Measure (s)	Residual Impact
	<p>comparable to habitat to be impacted by individual project activity. Compensatory mitigation for sensitive vegetation communities can be combined with other compensatory mitigation (e.g., sensitive vegetation communities) as applicable.</p> <p><i>Restoration and Monitoring</i></p> <p>If waters and/or wetlands cannot be avoided and will be impacted by construction of the Trail, a compensatory mitigation program shall be implemented in accordance with <i>Mitigation Measure BIO-1(c)</i> and the measures set forth by the regulatory agencies during the permitting process. All temporary impacts to waters and wetlands shall be fully restored to natural condition.</p> <p>BIO-3(c) General Avoidance and Minimization. Potential jurisdictional features identified in jurisdictional delineation reports shall be avoided. Identified jurisdictional features shall be documented in a report detailing how all identified jurisdictional features shall be avoided.</p> <ul style="list-style-type: none"> ▪ Any material/spoils generated from project activities shall be located away from jurisdictional areas or special-status habitat and protected from storm water run-off using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls (non- monofilament), covers, sand/gravel bags, and straw bale barriers, as appropriate. ▪ Materials shall be stored on impervious surfaces or plastic ground covers to prevent any spills or leakage from contaminating the ground and generally at least 50 feet from the top of bank (Canyon Del Rey/SR 218 segment). ▪ Any spillage of material shall be stopped if it can be done safely. The contaminated area will be cleaned and any contaminated materials properly disposed. For all spills, the project foreman or designated environmental representative will be notified. 	
<p>Impact BIO-4. The proposed project would not 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 wildlife nursery sites. This impact would be less than significant.</p>	<p>None Required</p>	<p>Less than significant</p>
<p>Impact BIO-5. Implementation of the proposed project may conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. This impact would be less than significant.</p>	<p>None Required</p>	<p>Less than significant</p>

Impact	Mitigation Measure (s)	Residual Impact
<p>Impact BIO-6. The proposed project would potentially conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. This impact would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Cultural Resources</p>		
<p>Impact CUL-1. The project would not cause substantial adverse change in the significance of a historical resource. Impacts would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact CUL-2. The project may cause a substantial adverse change in the significance of an archaeological resource. Impacts would be less than significant with mitigation.</p>	<p>CUL-2 Conduct Archaeological Monitoring during Construction. Prior to the commencement of construction activities, an orientation meeting shall be conducted by an archaeologist with the general contractor, subcontractor, and construction workers associated with earth disturbing activities for all Trail segments. The orientation meeting shall describe the potential of exposing archaeological resources, the types of cultural materials may be encountered, and directions on the steps that shall be taken if such a find is encountered. Topics to be discussed shall include, but not be limited to, Ohlone material culture and a brief history of the Former Fort Ord.</p> <p>During construction, a qualified archaeologist shall be present during all earth moving activities involving excavation for all Trail segments. If previously unknown or undiscovered archaeological resources are encountered during ground-disturbing construction activities, the archaeological monitor shall have the authority to halt work, and the implementing agency shall be notified at once. The qualified archaeologist shall assess the nature, extent, and potential significance of any archaeological remains. The implementing agency shall implement a Phase II subsurface testing program to determine the resource boundaries in the trail corridor/impact area, assess the integrity of the resource, and evaluate the site’s significance through a study of its features and artifacts.</p> <p>If the site is determined to be significant, the implementing agency may choose to cap the resource area, using culturally sterile and chemically neutral fill material, and shall include open space preservation and environmentally sensitive area signage for the site to ensure its protection from development. A qualified archaeologist shall be retained to monitor the placement of fill upon the site and to make open space preservation and interpretive recommendations. If a significant site will not be capped, the results and recommendations of the Phase II study shall determine the need for a Phase III data recovery program designed to record and remove significant archaeological materials that could otherwise be tampered with. Phase III data recoveries typically include extensive subsurface excavation and a full analysis of additional background research, the publication of scholarly work, and preparation of interpretive materials designed to exhaust the data potential of an archaeological site, in accordance with the</p>	<p>Less than significant</p>

Impact	Mitigation Measure (s)	Residual Impact
	Secretary of the Interior’s Standards for the Treatment of Historic Properties (National Park Service 2017). If the site is determined insignificant, no capping and/or further archaeological investigation shall be required.	
Impact CUL-3. The project may disturb human remains, including those interred outside of formal cemeteries. Impacts would be less than significant.	None required	Less than significant
Energy		
Impact E-1. The project would not result in the unnecessary, inefficient, or wasteful use of energy. This impact would be less than significant.	None required	Less than significant
Impact E-2. The proposed project would not conflict with state or local plans for renewable energy or energy efficiency. This impact would be less than significant.	None required	Less than significant
Geology and Soils		
Impact GEO-1. The project may exacerbate the exposure of people to seismic hazards by constructing overcrossings and undercrossings that could increase risks from seismic ground shaking. Impacts would be less than significant with mitigation.	<p>GEO-1 Conduct Design-level Geotechnical Investigation and Implement Recommendations. Prior to construction of any new undercrossing or overcrossing, and for portions of the Trail near a steep slope, a registered civil or geotechnical engineer shall prepare for review by the implementing entity a Design-level Geotechnical Investigation. The Design-level Geotechnical Investigation shall include the following:</p> <ul style="list-style-type: none"> ▪ Soil test borings necessary to fully characterize geologic and soil conditions for grade-separated crossings, including but not limited to soil sampling at critical structure locations ▪ Specific and detailed recommendations for structural setbacks, foundation types and the related criteria to be used in their design, allowable settlement, seismic design considerations including seismically-induced settlement, retaining structures as needed, drainage improvements, and earthwork preparation ▪ Quantitative analysis of potentially liquefiable sediments in the trail alignment, including estimates of potential settlement, to assess their potential impact on foundations, slope stability, and lateral spreading potential ▪ Detailed geotechnical analysis and design standards for reinforced soil slopes, retaining walls, and other project facilities on or near loose to very loose granular soils, including an assessment of the potential for static and seismically-induced settlement, soil preparation and compaction requirements, and foundation requirements ▪ Assessment of compaction needs for to reduce settlement potential for site walls, and pavement sections to reduce settlement potential 	Less than significant

Impact	Mitigation Measure (s)	Residual Impact
	<ul style="list-style-type: none"> ▪ Geotechnical design criteria for engineered embankments or retaining walls, including lateral earth pressure values, foundation recommendations, bearing capacity, keyway dimensions and construction recommendations, appropriate slope gradients, slope setbacks, drainage requirements, and specifications and compaction requirements for engineered fill and geosynthetic reinforcement ▪ Detailed design recommendations for stabilization, including types of materials to be used, foundation requirements and structural connections to competent native materials, and measures to address undercutting of the bluff by wave action ▪ All geotechnical design recommendations as required for site preparation, grading and compaction, structure foundation design, retaining walls, slope setbacks, surface drainage, concrete slabs-on-grade, and design of structural pavement sections <p>All geotechnical design recommendations from the Design-level Geotechnical Investigation shall be implemented.</p>	
<p>Impact GEO-2. The project may exacerbate public exposure to liquefaction or landslide hazards which may cause substantial adverse effects. Impacts would be less than significant with mitigation.</p>	<p>GEO-1: Conduct Design-level Geotechnical Investigation and Implement Recommendations. <i>Mitigation Measure GEO-1</i> text is included under Impact GEO-1 above.</p>	<p>Less than significant</p>
<p>Impact GEO-3. The project may result in substantial soil erosion or the loss of topsoil during construction and operation. However, state and local regulations would require implementation of sediment and erosion control. Impacts would be less than significant.</p>	<p>None Required</p>	<p>Less than significant</p>
<p>Impact GEO-4. FORTAG would not exacerbate the existing risk to life or property resulting from expansive soils because the proposed alignment would not overlay soils with a high expansion potential. Impacts would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>

Impact	Mitigation Measure (s)	Residual Impact
<p>Impact GEO-5. Ground disturbing activities during project construction may directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Impacts would be less than significant with mitigation.</p>	<p>GEO-5: Implement Paleontological Resources Mitigation. The following mitigation measures shall only be implemented during ground construction activities (i.e., grading, trenching, foundation work, and other excavations) where ground disturbance exceeds ten feet below ground surface within the project corridor, including development of proposed overcrossings and undercrossings in the Northern Loop, Canyon Del Rey/SR 218, and CSUMB Loop North segments.</p> <p><i>Develop a Paleontological Resources Mitigation Plan</i></p> <p>Prior to the commencement of ground disturbing activities for overcrossings and undercrossings in the Northern Loop, Canyon Del Rey/SR 218, and CSUMB Loop North segments, a qualified professional paleontologist shall be retained to prepare and implement a Paleontological Resources Mitigation Plan (PRMP) for the project. A Qualified Paleontologist is an individual who meets the education and professional experience standards as set forth by the SVP (2010), which recommends the paleontologist shall have at least a Master’s Degree or equivalent work experience in paleontology, shall have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques. The PRMP shall describe mitigation recommendations in detail, including paleontological monitoring procedures; communication protocols to be followed in the event that an unanticipated fossil discovery is made during project development; and preparation, curation, and reporting requirements.</p> <p><i>Paleontological Worker Environmental Awareness Program (WEAP)</i></p> <p>Prior to the start of construction for all segments, the Qualified Paleontologist or his or her designee, shall conduct training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff. The WEAP shall be fulfilled at the time of a preconstruction meeting. In the event a fossil is discovered by construction personnel anywhere in the project area, all work in the immediate vicinity of the find shall cease and a qualified paleontologist shall be contacted to evaluate the find before re-starting work in the area. If it is determined that the fossil(s) is (are) scientifically significant, the qualified paleontologist shall complete the mitigation outlined below to mitigate impacts to significant fossil resources.</p> <p><i>Paleontological Monitoring</i></p> <p>Initially, full-time monitoring shall be conducted during ground construction activities where ground disturbance exceeds ten feet below ground surface within deposits of Older Quaternary dune sand (Qod) and Aromas Sand (Qae). Monitoring shall be conducted by a qualified paleontological monitor, who is defined as an individual who meets the minimum qualifications per standards set forth by the SVP (2010), which includes a B.S. or B.A. degree in geology or paleontology with one year of monitoring experience and knowledge of collection and salvage of paleontological resources. The duration and timing of the monitoring shall be determined by the Qualified Paleontologist and the location and extent of proposed ground disturbance. If the Qualified Paleontologist determines that full-time monitoring is no longer warranted, based on the specific geologic conditions at the surface or at depth, the Qualified Paleontologist may recommend that monitoring be reduced to periodic spot-checking or cease entirely.</p>	<p>Less than significant</p>

Impact	Mitigation Measure (s)	Residual Impact
<p><i>Fossil Discovery, Preparation, and Curation</i></p> <p>If a paleontological resource is discovered, the monitor shall have the authority to temporarily divert the construction equipment around the find until it is assessed for scientific significance and collected. Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammals) require more extensive excavation and longer salvage periods. In this case, the paleontologist should have the authority to temporarily direct, divert or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner.</p> <p>Once salvaged, significant fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition and curated in a scientific institution with a permanent paleontological collection (such as the UCMP) along with all pertinent field notes, photos, data, and maps. The cost of curation is assessed by the repository and is the responsibility of the project owner.</p> <p><i>Final Paleontological Mitigation Report.</i></p> <p>At the conclusion of laboratory work and museum curation, a final report shall be prepared describing the results of the paleontological mitigation monitoring efforts associated with the project. The report shall include a summary of the field and laboratory methods, an overview of the project geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. The final report shall be submitted to the implementing entity. If the monitoring efforts produced fossils, then a copy of the report shall also be submitted to the designated museum repository.</p>		
Greenhouse Gas Emissions/Climate Change		
<p>Impact GHG-1. The project would not generate new, ongoing sources of GHG emissions that would have a direct or indirect significant impact on the environment. This impact would be less than significant.</p>	<p>None Required</p>	<p>Less than significant</p>
<p>Impact GHG-2. The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. This impact would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>

Impact	Mitigation Measure (s)	Residual Impact
<p>Impact GHG-3. The project would not expose people or structures to substantial risk of loss, injury, or death from projected sea level rise, storm flooding, or fire risk. This impact would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Hazards and Hazardous Materials</p>		
<p>Impact HAZ-1. Implementation of the project may create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials specifically related to agriculture. Impacts would be less than significant with mitigation.</p>	<p>AG-4(a) Implement Measures to Reduce Construction-Related Conflicts with Agricultural Operations. <i>Mitigation Measures AG-4(a)</i> text is included under Impact AG-4.</p> <p>AG-4(b) Install No Trespassing Signs and Fencing Prior to Operation. <i>Mitigation Measures AG-4(b)</i> text is included under Impact AG-4.</p>	<p>Less than significant</p>
<p>Impact HAZ-2. The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school serving children between kindergarten and 12th grade. Impacts would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact HAZ-3. Ground disturbance during project construction could release existing soil contaminants and expose construction personnel and the public to health hazards. Impacts would be less than significant with mitigation incorporated.</p>	<p>HAZ-3(a) Conduct Soil Sampling and Implement Necessary Remediation. This mitigation measure applies to all segments of the Trail within the vicinity of former Fort Ord firing ranges, including the Fort Ord OU1 (off-site plum) area, in the vicinity of existing and former railroad tracks, in the vicinity of major roads and highways, in current and former agricultural areas, and in the vicinity of the following roadways: Beach Road, Del Monte Boulevard, Charles Benson Road (Northern Marina segment), Reservation Road, Inter-Garrison Road, Blanco Road (Northern Loop segment), 8th Street, California Drive, Imjin Parkway, Imjin Road, Engineering Equipment Road (CSUMB Loop North segment), Divarty Street (CSUMB Loop South segment), General Jim Moore Boulevard, 8th Avenue, Parker Flats Cut Off Road (National Monument Loop segment), Del Monte Avenue, Highway 218, General Jim Moore Boulevard (Canyon Del Rey/SR 218 Segment) and South Boundary Road (Ryan Ranch segment). In these areas, prior to project construction, implementing entities shall conduct a Supplemental Soils Investigation. The Soil Sample Investigation shall include soil sampling at selected locations along the Northern Marina, Northern Loop, CSUMB Loop North, CSUMB Loop South, National Monument Loop, Canyon Del Rey/SR 218, and Ryan Ranch segments under the supervision of a professional geologist or professional civil engineer. Soil samples shall identify the concentrations of anticipated contaminants which may include, but are not limited to: VOCs, PFAS, aerial-deposited lead, organochlorine pesticides, polycyclic aromatic hydrocarbons, total petroleum hydrocarbons, volatile organic compounds, semi-volatile organic compounds and arsenic.</p>	<p>Less than significant</p>

Impact	Mitigation Measure (s)	Residual Impact
	<p>The implementing entity shall coordinate with the Monterey County’s Environmental Health Bureau to develop and implement a program to remediate or manage known contaminated soil during construction. If necessary, any additional information gathered from the Supplemental Soil Investigation shall be used to identify locations along the project corridor that may require remedial action in order to prevent exposure of construction workers, maintenance personnel, and Trail users to these contaminants. The environmental data collected shall also be used to identify the appropriate disposal options for those soils or demolished materials that require off-site disposal.</p> <p>Disposal shall occur at an appropriate facility licensed to handle such contaminants and remedial excavation shall proceed under the supervision of an environmental consultant licensed to oversee such remediation. Where possible, potentially contaminated soils shall be stockpiled and characterized to determine the appropriate means and location for proper disposal. The remediation/disposal program shall be approved by the Monterey County Environmental Health Bureau. The implementing entity shall submit any required correspondence to Monterey County Environmental Health Bureau prior to issuance of grading permits. All proper waste handling and disposal procedures shall be followed in accordance with applicable DTSC and CalOSHA regulations. Upon completion of the Supplemental Site Investigation, the implementing entity shall prepare a report presenting the findings of the additional assessment. The report shall include figures depicting the boring locations, summary tables of analytical data, conclusions, and recommendations.</p> <p>HAZ-3(b) Prepare and Implement Soils Management Plan. The implementing entity shall ensure a Soils Management Plan (SMP) is developed by a qualified engineer or geologist and implemented in order to protect workers during ground-disturbing activities and to remove and/or mitigate exposure to hazardous-material-containing soil, where present in the Trail corridor as determined by the Supplemental Soils Investigation as described under <i>Mitigation Measure HAZ-3(a)</i>. Laboratory data for the impacted soil, identified as part of the Supplemental Soils Investigation prepared under <i>Mitigation Measure HAZ-3(a)</i>, shall be used to profile excavated soil prior to transport, treatment, and recycling at a licensed treatment facility.</p> <p>Additional profiling of the export soils shall be performed as needed to satisfy requirements of the receiving facility. Removal, transportation, and disposal of impacted soil shall be performed in accordance with applicable DTSC and CalOSHA I laws, regulations, and ordinances. The SMP shall include health and safety information for workers and the general public with an emphasis on potential adverse health effects and how to seek proper help if an accident is suspected and inform the various contractors and workers of the presence of shallow soil impacted with contaminants and the appropriate measures to avoid exposure to contaminants. These measures may include, but would not be limited to, the following:</p> <ol style="list-style-type: none"> 1. Installing temporary security fencing around the construction site and flag/cone off the areas of contaminated soils (Hot Spots) until the contaminants are removed 2. Providing all personnel entering a Hot Spot with site-specific awareness training 3. Requiring that all personnel whose work will involve the excavation or disturbance of soils in and around the Hot Spot must have successfully completed 40-hour Hazardous Worker (HAZWOPER) 	

Impact	Mitigation Measure (s)	Residual Impact
	<p>training</p> <ol style="list-style-type: none"> 4. Requiring a HAZWOPER supervisor to be on-site at all times during the excavation or disturbance of soils in a Hot Spot 5. Prohibiting personnel who cannot prove that they are authorized to enter a Hot Spot or do not have the appropriate personal protective equipment from entering a Hot Spot 6. Prohibiting eating, drinking, smoking, chewing gum or tobacco in Hot Spots, and requiring consumable items and activities be confined to designated worker break areas <p>In the event that contaminated soil and/or groundwater are identified where not previously anticipated during construction, the SMP shall also require that construction cease, and that appropriate handling and disposal procedures be implemented. Contaminated soils and/or groundwater can be identified by discoloration or stains, distinctive odors, absence of plants and animals, subsequent erosion from the absence of plant life, or the presence of paint chips or other materials known to contaminate soils. Procedures for properly handling, storing, and disposing contaminated soils may include, but are not limited to, the following:</p> <ol style="list-style-type: none"> 1. Placing contaminated soils in properly labeled drums or lined hazardous waste storage/transportation conveyance units (i.e., roll-off waste boxes) in preparation of transportation and disposal 2. Avoiding temporary stockpiling of contaminated soils or hazardous materials 3. If temporary stockpiling is necessary: <ul style="list-style-type: none"> ▪ Covering the stockpile with plastic sheeting or tarps ▪ Installing a berm around the stockpile to prevent runoff from leaving the area ▪ Avoiding stockpiling in or near storm drains or watercourses 4. Monitoring the air quality during excavation operations at locations potentially exhibiting elevated concentrations of hazardous material 5. Collecting water from decontamination procedures and treating and/or disposing of it at an appropriate disposal site 6. Collecting non-reusable protective equipment and disposing at an appropriate disposal site <p>HAZ-3(c) Records Search for Residual Soil and Groundwater Contamination. Prior to project construction on the Canyon Del Rey/SR 218 segment a records search for residual soil and groundwater contamination related to the Del Rey Car Wash, Inc. at 810 Canyon Del Rey Road and upgradient release site at 1083 Freemont Boulevard shall be conducted by the implementing entity. Results of the records search shall be document in a technical memorandum and submitted to the Monterey County Environmental Health Bureau prior to issuance of grading permits for the Canyon Del Rey/SR 18 segment near the listed properties. The technical memorandum shall recommend remediation, such as safety precautions for construction workers if necessary, that shall be implemented prior to Trail construction.</p>	

Impact	Mitigation Measure (s)	Residual Impact
<p>Impact HAZ-4. The project is located within two miles of the Marina Municipal Airport and Monterey Regional Airport and may result in safety hazards for recreational users. Impacts would be less than significant with mitigation.</p>	<p>HAZ-4 Install Airport Noticing and Fencing Prior to Operation. Prior to the Northern Marina or Northern Loop segments opening for public use, the implementing entity shall post airport disclosure notices regarding ongoing airport operation and safety risks. Notices shall be posted at least every mile on the Northern Marina and Northern Loop segments beginning at least a half mile before entering a Marina Municipal Airport designated safety zone. The location of the notices posted along the Trail shall be identified by the implementing entity in consultation with the Marina Municipal Airport Advisory Committee. The implementing entity shall be responsible for ensuring the signage is properly maintained and shall replace signage when it is removed or damaged such that the notices are no longer legible.</p> <p>In addition, wherever the Trail is located within an airport safety zone, as defined by the Marina Municipal Airport Land Use Compatibility Plan, fencing shall be added along the Trail to prevent recreational users from accessing airport property. Fencing shall be of appropriate height to prevent trail users from straying off the trail. The implementing entity for the Northern Marina and Northern Loop segments shall be responsible for ensuring the fencing is properly maintained and shall replace fencing when it is removed or damaged such that it is no longer functional.</p>	<p>Less than significant</p>
<p>Impact HAZ-5. The project would not substantially alter any roadways such that emergency evacuation would be impaired. Impacts would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Hydrology and Water Quality</p>		
<p>Impact HYD-1. The project may result in an increase of pollutant discharges to waters of the state. this impact would be less than significant with mitigation.</p>	<p>HYD-1(a) Prepare Accidental Spill Control Plan and Conduct Environmental Training prior to Construction. Prior to commencement of construction activities and under the direction of the implementing entity, the construction contractor shall prepare a Spill Response Plan (SRP) and Spill Prevention, Control and Countermeasure Plan (SPCC) for the segment, which shall apply to the construction phase of each segment or portion thereof. These plans shall include procedures for quick and safe clean-up of accidental spills; shall prescribe hazardous materials handling procedures for reducing the potential for a spill during construction; and shall include an emergency response program to ensure quick and safe clean-up of accidental spills and proper disposal of contaminants. The plans shall be reviewed and approved by the local jurisdiction with oversight prior to construction commencement.</p> <p>Additionally, prior to the onset on construction activities for each segment or portion thereof, the contractor shall conduct an environmental training program to communicate the risk for accidental spills, environmental concerns and appropriate work practices, including spill prevention and response measures, to all field personnel prior to construction. A construction inspector or monitor shall ensure a copy of these plans are kept at construction staging areas or other location accessible and frequented by the construction crew, and shall ensure that the plans are followed during all construction activities.</p> <p>HYD-1(b) Maintain Vehicles and Equipment During Construction. All construction vehicles and equipment, including all hydraulic hoses, shall be maintained in good working order to minimize leaks and contact the ground. A construction inspector or monitor shall check the vehicles and equipment and</p>	<p>Less than significant</p>

Impact	Mitigation Measure (s)	Residual Impact
	<p>maintain vehicle equipment logs on a monthly basis for the duration of project construction. This measure applies to construction all FORTAG segments or portions thereof.</p> <p>HYD-1(c) Conduct Design-Level Drainage Analysis Prior to Construction, and Implement Identified Measures to Minimize Runoff During Construction. Prior to the commencement of construction activities for each segment or portion thereof, the implementing entity shall retain a qualified registered professional engineer to conduct a design-level drainage analysis that identifies existing drainage patterns across the project corridor, stormwater discharge locations on- and off-site, and stormwater control measures to implement during construction of the project. Where feasible, the drainage analysis shall quantify the existing and predicted post-construction peak runoff rates and amounts, both on-site and off-site, immediately downgradient of the project corridor. The drainage analysis shall identify any changes to the location of down-gradient discharge of stormwater runoff and any potential impacts to off-site property that would result from those changes to ensure drainage patterns are not substantially altered through project implementation, and that none of the overcrossings or undercrossing structures that are part of the project have impeded flood flows. The stormwater control measures to be implemented during construction shall also include or be consistent with measures identified to satisfy the erosion and runoff control standards of the NPDES-required SWPPP or County-required Construction Best Management Practices/Stormwater Management Program measures. The identified stormwater control measures shall be installed when appropriate during the construction process, including during grading, initial site preparation, excavation, and construction, as necessary, to control stormwater runoff and erosion during all phases of the construction process.</p> <p>HYD-1(d) Prepare Stormwater Control Plan Prior to Construction and Implement Identified Stormwater Control Measures. Prior to commencement of construction activities for each segment or portion thereof, the implementing entity shall retain a registered professional engineering to prepare a Stormwater Control Plan, addressing the post-construction stormwater best management practices to be implemented along the project corridor. The plan shall include:</p> <ul style="list-style-type: none"> ▪ The location of the stormwater control measures and details regarding their size and materials. Stormwater control measures shall be developed to maximize on-site infiltration of stormwater and minimize off-site stormwater discharge during operation of the project. ▪ A site map identifying all structural Stormwater Control Measures requiring operations and maintenance practices to function as designed. ▪ A description of all Stormwater Control Measures requiring operations and maintenance practices. ▪ Short- and long-term maintenance requirements, frequency of maintenance recommendations, and cost for maintenance estimations for each Stormwater Control Measure. <p>The Stormwater Control Plan shall specify that all recommended annual maintenance shall be completed by October 15 of each year to ensure compliance with all CWA permitting and reporting requirements. The frequency of maintenance activities that are not required on an annual basis shall be specified in the Stormwater Control Plan. The Stormwater Control Plan shall also demonstrate that with implementation</p>	

Impact	Mitigation Measure (s)	Residual Impact
	and proper maintenance of the proposed stormwater control measures, all NPDES post-construction stormwater requirements would be met.	
<p>Impact HYD-2. The project would not deplete groundwater supplies or substantially interfere with groundwater recharge. This impact would be less than significant.</p>	None required	Less than significant
<p>Impact HYD-3. The project would alter drainage patterns in the project corridor, which may impact water quality. This Impact would be less than significant with mitigation.</p>	<p>HYD-1(c) Conduct Design-Level Drainage Analysis and Minimize Runoff During Construction. <i>Mitigation Measure HYD-1(c)</i> text is included under Impact HYD-1.</p> <p>HYD-1(d) Prepare Stormwater Control Plan and Operation and Maintenance Plan Prior to Construction and Implement Identified Stormwater Control Measures. <i>Mitigation Measure HYD-1(d)</i> text is included under Impact HYD-1.</p>	Less than significant
<p>Impact HYD-4. The project would alter drainage patterns in the project corridor, which may impact Flood Flows. This impact would be less than significant with mitigation.</p>	<p>HYD-1(c) Conduct Design-Level Drainage Analysis and Minimize Runoff During Construction. <i>Mitigation Measure HYD-1(c)</i> text is included under Impact HYD-1 above.</p> <p>HYD-1(d) Prepare Stormwater Control Plan and Operation and Maintenance Plan Prior to Construction and Implement Identified Stormwater Control Measures. <i>Mitigation Measure HYD-1(d)</i> text is included under Impact HYD-1.</p>	Less than significant
<p>Impact HYD-5. Trail users may be subject to the release of pollutants by tsunami or seiche, but the project would not exacerbate the risk of inundation by tsunami or seiche compared to existing conditions. This impact would be less than significant.</p>	None required	Less than significant
<p>Impact HYD-6. The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. This impact would be less than significant with mitigation.</p>	<p>HYD-1(a) Prepare Accidental Spill Control Plan and Conduct Environmental Training prior to Construction. <i>Mitigation Measure HYD-1(a)</i> text is included under Impact HYD-1.</p> <p>HYD-1(b) Maintain Vehicles and Equipment During Construction. <i>Mitigation Measure HYD-1(b)</i> text is included under Impact HYD-1.</p> <p>HYD-1(c) Conduct Design-Level Drainage Analysis and Minimize Runoff During Construction. <i>Mitigation Measure HYD-1(c)</i> text is included under Impact HYD-1.</p> <p>HYD-1(d) Prepare Stormwater Control Plan and Operation and Maintenance Plan Prior to Construction and Implement Identified Stormwater Control Measures. <i>Mitigation Measure HYD-1(d)</i> text is included under Impact HYD-1.</p>	Less than significant

Impact	Mitigation Measure (s)	Residual Impact
Land Use and Planning		
<p>Impact LU-1. The FORTAG alignment would not physically divide an established community. Impacts would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact LU-2. With implementation of mitigation measures identified in this EIR, FORTAG would not cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Impacts would be potentially significant but mitigable.</p>	<p>None required beyond those identified in other sections of this EIR.</p>	<p>Less than significant</p>
Noise		
<p>Impact N-1. Construction of the project would potentially expose persons to or generate excessive noise levels. This impact would be less than significant with mitigation.</p>	<p>N-1. Implement Noise-Reducing Measures for Pile Driving or Drilling Activities.</p> <p>Pile driving or drilling activities shall not be permitted at night. During all pile driving or drilling activities, which are a possibility for construction of overcrossings in the Northern Loop and CSUMB Loop North segments, the construction contractor shall employ a combination of the following noise-reducing measures to the extent necessary to reduce noise levels to 85 dBA or below at 50 feet from the project site. Noise monitoring shall occur once daily during normal pile driving or drilling activities to confirm that the standard has been met. If the noise level exceeds 85 dBA, the monitor shall notify the construction contractor, who shall cease pile driving or drilling until additional measures are implemented to reduce noise levels to 85 dBA, with subsequent monitoring.</p> <ol style="list-style-type: none"> 1. Equipment with the potential to exceed 85 dBA at 50 feet shall be located as far from nearby noise-sensitive receptors as possible. 2. Any construction equipment that would be required during pile driving or drilling activity shall be properly maintained and have manufacturer-approved or recommended sound abatement means on air intakes, combustion exhausts, heat dissipation vents, and the interior surfaces of engine hoods and power train enclosures. 3. If feasible and determined to be an effective option, install temporary noise barriers around the perimeter of pile driving or drilling equipment operation to minimize construction noise. <p>In addition to these noise-reducing measures, the construction contractor shall provide written notification to residences within 700 feet of pile driving or drilling activities at least three weeks prior to all pile driving or drilling activities. The notification shall inform residents of the estimated start date, times and duration of pile driving or drilling activities.</p>	<p>Less than significant</p>

Impact	Mitigation Measure (s)	Residual Impact
<p>Impact N-2. Operation of the project would not expose persons to or generate excessive noise levels. This impact would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact N-3. The project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels. This impact would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact N-4. The project would not expose people residing or working in the project area to excessive noise levels from aircraft. This impact would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Public Safety and Services</p>		
<p>Impact PS-1. The project would not result in adverse physical impacts associated with the need for additional emergency services and fire protection to maintain acceptable service ratios or response times. However, public concerns for safety on the Trail may result in increased calls for police protection services. Impacts would be less than significant with mitigation.</p>	<p>PS-1 Ensure Adequate Police Monitoring and Safety Provisions for Each Portion of the FORTAG Alignment. Prior to the construction and operation of any segment or portion of FORTAG, the project Master Agreement will be developed and signed by relevant jurisdictional parties, which will include provisions requiring the entry into Supplemental Agreements at the time that actual design and construction occurs. These Supplemental Agreements shall specify: 1) maintenance activities and frequency, including trash collection; 2) safety features or provisions (e.g., lighting, fencing, signage) determined appropriate by local law enforcement in consideration of potential for homeless/transient activity, illegal camping, or criminal activity in the particular trail segment; 3) safety patrol responsibility, frequency, and reporting procedures; 4) protocol for illegal camping and loitering; and 5) monitoring and reporting methodology and frequency, in consideration of ongoing reports to local jurisdictions responsible for maintenance, law enforcement and monitoring. The Supplemental Agreements shall also identify adaptive management options if public safety and law enforcement are determined to be an ongoing issue.</p> <p>Mitigation Measure AG-4(c): Regularly Remove Solid Waste and Litter during Operation. <i>Mitigation Measure AG-4(c)</i> is included under Impact AG-4.</p>	<p>Less than significant</p>

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Impact	Mitigation Measure (s)	Residual Impact
<p>Impact PS-2. The project would not result in the need for the construction of new or additional school or library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives. Impacts would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact PS-3. The project would not result in the need for the construction of new or additional park facilities, nor the degradation of existing facilities. Impacts would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact PS-4. The project would not result in the need for the construction of new or additional health service facilities, nor the degradation of existing facilities. Impacts would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Transportation</p>		
<p>Impact T-1. The proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Impacts would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact T-2. The project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Impacts would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact T-3. FORTAG would not substantially increase hazards due to geometric design features or incompatible uses. Impacts would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact T-4. FORTAG would not result in inadequate emergency access. Impacts would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>

Impact	Mitigation Measure (s)	Residual Impact
Tribal Cultural Resources		
<p>Impact TCR-1. The project may cause a substantial adverse change in the significance of a previously unknown or unidentified tribal cultural resource. Impacts would be less than significant with mitigation.</p>	<p>TCR-1 Native American Monitoring. A Native American monitor shall be retained and remain present during ground disturbing activities for each Trail segment within previously undisturbed native soils, including any archaeological excavation resulting from the implementation of <i>Mitigation Measure CUL-2</i> in Section 4.5, Cultural Resources.</p> <p>In the event that cultural resources of Native American origin are identified during construction, the implementing entity shall consult with a qualified archaeologist and begin or continue Native American consultation procedures. If the implementing entity, in consultation with local Native Americans, determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with Native American groups. The mitigation plan may include, but would not be limited to: avoidance, capping in place, excavation and removal of the resource, interpretive displays, sensitive area signage, or other mutually agreed upon measures.</p>	<p>Less than significant</p>
Utilities and Service Systems		
<p>Impact UTIL-1. The project would not require or result in relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, and would not generate water or wastewater treatment demand in excess of existing supplies. Impacts would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact UTIL-2. The project would not generate solid waste in excess of local landfill capacity, and would comply with applicable regulations. This impact would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>

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Impact	Mitigation Measure (s)	Residual Impact
Wildfire		
<p>Impact WFR-1. FORTAG would be located in areas classified as very high fire hazard severity zones, but implementation and operation of FORTAG would not substantially impair the execution of adopted emergency response or evacuation plans. Impacts would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact WFR-2. FORTAG would be located in areas classified as very high fire hazard severity zones, but implementation and operation of FORTAG would not exacerbate wildfire risks with adherence to applicable firebreak maintenance standards. Impacts would be less than significant with mitigation.</p>	<p>GEO-1 Conduct Design-level Geotechnical Investigation and Implement Recommendations. <i>Mitigation Measure GEO-1</i> is included under Impact GEO-1.</p>	<p>Less than significant</p>
<p>Impact WRF-3. FORTAG would increase the presence of people in areas designated as High and Very High Wildfire Hazards, but would not expose people or structures to significant wildfire risks. Therefore, impacts would be less than significant.</p>	<p>None required</p>	<p>Less than significant</p>

1 Introduction

This document is a project-specific environmental impact report (EIR) for the proposed Fort Ord Regional Trail and Greenway (FORTAG or Trail) project. The project is proposed by the Transportation Agency of Monterey County (TAMC) as the Lead Agency, on behalf of the County of Monterey and the cities of Seaside, Marina, Monterey, and Del Rey Oaks. The project is an approximately 28-mile paved trail, in northwestern Monterey County, generally encircling the cities of Seaside and Marina and the California State University, Monterey Bay (CSUMB) campus. The Trail would be built on land in the County of Monterey and the cities of Seaside, Marina, Monterey, and Del Rey Oaks. The project is described in detail in **Section 2, Project Description**.

This section discusses (1) the purpose and legal authority of the EIR; (2) the project background and need; (3) the California Environmental Quality Act (CEQA) environmental review process; (4) the EIR scope and content; and (5) the organization of the EIR.

1.1 Purpose and Legal Authority

The proposed project requires the discretionary approval of the TAMC Board of Directors and the City Councils of the underlying jurisdictions identified above; therefore, the project is subject to the environmental review requirements of CEQA. In accordance with Section 15121 of the *CEQA Guidelines* (California Code of Regulations, Title 14), the purpose of this EIR is to serve as an informational document that:

...will inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

This EIR has been prepared as a Project EIR pursuant to Section 15161 of the *CEQA Guidelines*. A Project EIR is appropriate for a specific development project. As stated in the *CEQA Guidelines*:

This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project, including planning, construction, and operation.

This EIR will serve as an informational document for TAMC and related decision makers and the public. The process will include public hearings to consider certification of a Final EIR and approval of the proposed project.

1.2 Project Background and Need

The FORTAG name was coined in 2013 by CSUMB professors Fred Watson and Scott Waltz, who initiated a grassroots campaign effort to envision a trail that improves and connects the existing regional trail network along the Monterey Bay to the beautiful open spaces on the former Fort Ord military base. An extensive process of public outreach and agency coordination has been ongoing since the project was first envisioned. In 2016, Monterey County voters approved Measure X,

securing \$20 million of funding for FORTAG. In 2018, the FORTAG project was included on the list of active transportation projects in Monterey County in the 2040 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) prepared by the Association of Monterey Bay Governments, and the 2018 Regional Transportation Plan (RTP) prepared by TAMC.

TAMC has also secured a State Active Transportation Program grant for an additional \$10.3 million to fund construction of the Canyon Del Rey/State Route (SR) 218 Segment of FORTAG. In 2017, a Memorandum of Understanding by TAMC, Monterey County, and the cities of Del Rey Oaks, Marina, Monterey, and Seaside designated TAMC as the lead agency under CEQA. The development, construction, operation, and maintenance of FORTAG would be governed by a Master Agreement (MA), to be executed by TAMC and the jurisdictions within whose boundaries FORTAG is located.

FORTAG is intended to provide opportunities for recreation and transportation for residents and visitors. The project emphasizes safety and accessibility for trail users and connection to the natural environment. Refer to **Section 2.3, Project Purpose and Objectives**, for a full list of the project's objectives.

On June 13, 2019, TAMC issued a Notice of Preparation to begin the process of preparing this EIR for the project.

1.3 CEQA Environmental Review Process

CEQA requires all state and local government agencies to consider the environmental consequences of nonexempt projects over which they have discretionary authority before acting on those projects. To identify and disclose the environmental impacts, the lead agency must prepare the appropriate environmental documentation (EIR or Negative Declaration). For the proposed project, TAMC has chosen to prepare an EIR.

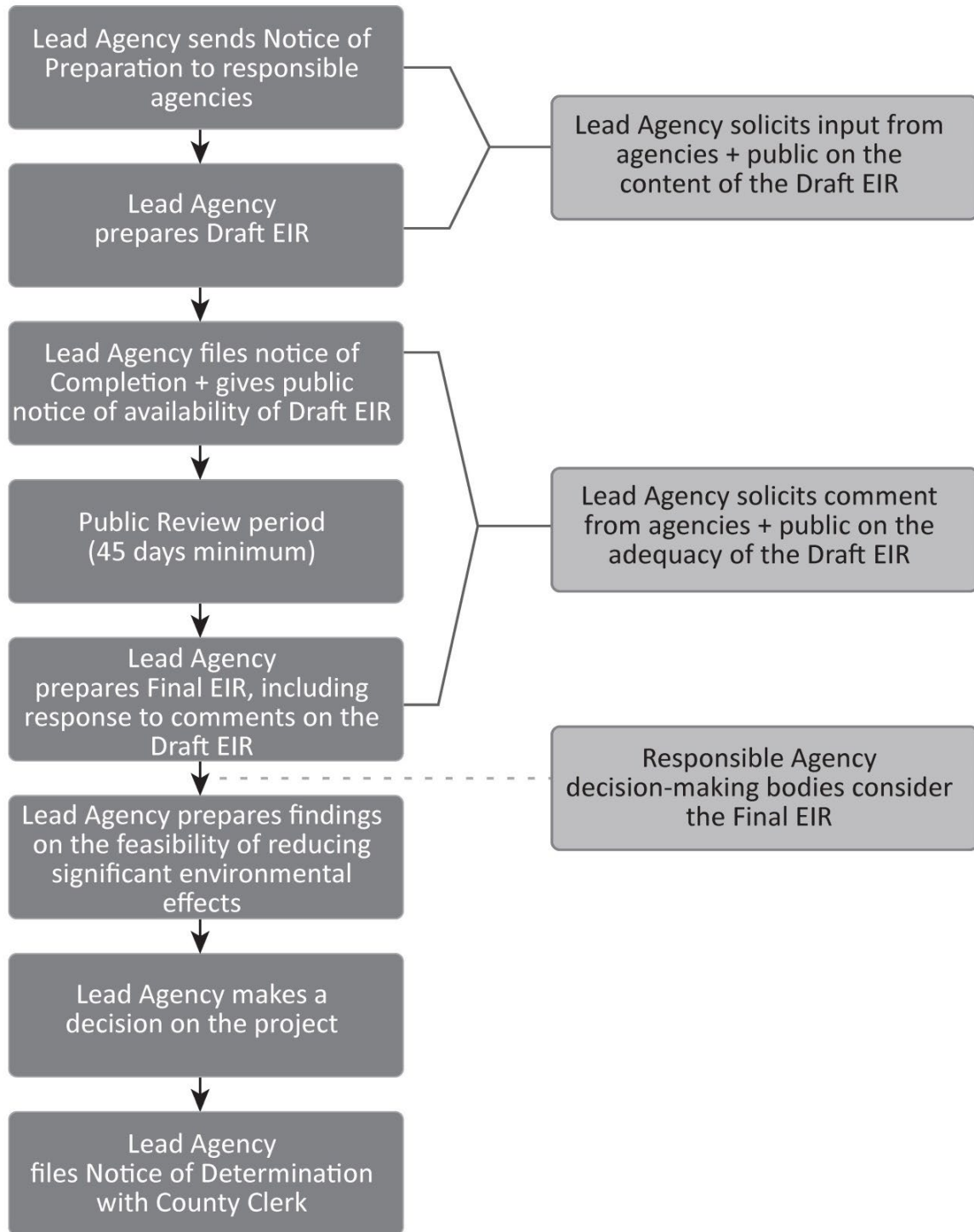
The environmental impact review process, as required under CEQA, is summarized below and illustrated in Figure 1-1. The steps are presented in sequential order.

1. **Notice of Preparation (NOP) and Scoping.** After deciding that an EIR is required, the lead agency (TAMC) must file an NOP soliciting input on the EIR scope to the State Clearinghouse, other concerned agencies, and parties previously requesting notice in writing (*CEQA Guidelines* Section 15082; Public Resources Code Section 21092.2). The NOP must be posted in the County Clerk's office for 30 days. A scoping meeting to solicit public input on the issues to be addressed in the EIR is not required, but may be conducted by the lead agency.
2. **Draft EIR Prepared.** The Draft EIR must contain: a) table of contents or index; b) summary; c) project description; d) environmental setting; e) discussion of significant impacts (direct, indirect, cumulative, growth-inducing and unavoidable impacts); f) a discussion of alternatives; g) mitigation measures; and h) discussion of irreversible changes.
3. **Notice of Completion (NOC).** The lead agency must file a NOC with the State Clearinghouse when it completes a Draft EIR and prepare a Public Notice of Availability of a Draft EIR. The lead agency must place the NOC in the County Clerk's office for 30 days (Public Resources Code Section 21092) and send a copy of the NOC to anyone requesting it (*CEQA Guidelines* Section 15087). Additionally, public notice of Draft EIR availability must be given through at least one of the following procedures: a) publication in a newspaper of general circulation; b) posting on and off the project site; and c) direct mailing to owners and occupants of contiguous properties. The lead agency must solicit input from other agencies and the public, and respond in writing to all comments received (Public Resources Code Sections 21104 and 21253). The minimum public

review period for a Draft EIR is 30 days. When a Draft EIR is sent to the State Clearinghouse for review, the public review period must be 45 days unless the State Clearinghouse approves a shorter period (Public Resources Code 21091).

4. **Final EIR.** A Final EIR must include: a) the Draft EIR; b) copies of comments received during public review; c) list of persons and entities commenting; and d) responses to comments.
5. **Certification of Final EIR.** Prior to making a decision on a proposed project, the lead agency must certify that: a) the Final EIR has been completed in compliance with CEQA; b) the Final EIR was presented to the decision-making body of the lead agency; and c) the decision making body reviewed and considered the information in the Final EIR prior to approving a project (*CEQA Guidelines* Section 15090).
6. **Lead Agency Project Decision.** The lead agency may a) disapprove the project because of its significant environmental effects; b) require changes to the project to reduce or avoid significant environmental effects; or c) approve the project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted (*CEQA Guidelines* Sections 15042 and 15043).
7. **Findings/Statement of Overriding Considerations.** For each significant impact of the project identified in the EIR, the lead agency must find, based on substantial evidence, that either: a) the project has been changed to avoid or substantially reduce the magnitude of the impact; b) changes to the project are within another agency's jurisdiction and such changes have or should be adopted; or c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible (*CEQA Guidelines* Section 15091). If an agency approves a project with unavoidable significant environmental effects, it must prepare a written Statement of Overriding Considerations that sets forth the specific social, economic, or other reasons supporting the agency's decision.
8. **Mitigation Monitoring Reporting Program.** When the lead agency makes findings on significant effects identified in the EIR, it must adopt a reporting or monitoring program for mitigation measures that were adopted or made conditions of project approval to mitigate significant effects.
9. **Notice of Determination (NOD).** The lead agency must file a NOD after deciding to approve a project for which an EIR is prepared (*CEQA Guidelines* Section 15094). A local agency must file the NOD with the County Clerk. The NOD must be posted for 30 days and sent to anyone previously requesting notice. Posting of the NOD starts a 30 day statute of limitations on CEQA legal challenges (Public Resources Code Section 21167[c]).

Figure 1-1 The Environmental Review Process



1.3.1 Lead, Responsible, and Trustee Agencies

The *CEQA Guidelines* define lead, responsible and trustee agencies. Under a Memorandum of Understanding executed pursuant to CEQA Guidelines 15051(d), TAMC is the lead agency for the project evaluated in this Draft EIR, with the principal responsibility for approving the proposed project.

A responsible agency refers to a public agency other than the lead agency that has discretionary approval over a project or a portion of it. Responsible agencies for the FORTAG project include the County of Monterey and the cities of Marina, Seaside, Monterey, and Del Rey Oaks. Each jurisdiction has discretionary approval of the portion of the project within its boundaries; approval would occur through the MA with TAMC, with Supplemental Agreements addressing specific segments as they come forward for construction.

A trustee agency refers to a state agency having jurisdiction by law over natural resources affected by a project. The California Department of Fish and Wildlife (CDFW) is a trustee agency for the proposed project.

Additionally, the project requires encroachment permits from the California Department of Transportation (Caltrans). Specific project components or actions may require permits or approvals from the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Coastal Commission, and California Regional Water Quality Control Board.

1.3.2 Notice of Preparation

The purpose of the Notice of Preparation (NOP) is to solicit participation from responsible and coordinating federal, state, and local agencies and from the public in determining the scope of an EIR.

The scoping process for this EIR was formally initiated on June 13, 2019 with submission of the NOP to the State Clearinghouse in compliance with CEQA (State Clearinghouse No. 2019060053) for distribution to state agencies. A copy of the NOP was also provided to 71 federal, state, and local agency representatives; 30 members of various organizations; and 49 individual members of the public who had expressed interest in the project. The NOP was also posted on the TAMC website. The 30-day NOP review period ran from June 13, 2019 to July 15, 2019.

Scoping refers to the process employed to assist the lead agency in determining the focus and content of the analysis included in the EIR. Scoping solicits input on the potential topics to be addressed in an EIR, the range of project alternatives, and possible mitigation measures. Scoping establishes methods of assessment and selection of the environmental effects to be considered in detail. Tools used in scoping of this EIR included distribution of the NOP and public scoping meetings.

TAMC conducted two EIR scoping meetings on June 27, 2019; one at Oldemeyer Center in the City of Seaside from 2:00 p.m. to 4:00 p.m., and one at the City of Marina Public Library from 6:00 p.m. to 8:00 p.m. The meetings aimed to provide information about the proposed project to members of public agencies, interested stakeholders, and residents/community members. TAMC received 20 letters during the public review period, including 11 from public agencies, as well as various oral comments during the EIR scoping meetings.

The NOP is provided in **Appendix A** of this EIR, along with the NOP responses received. **Table 1-1** below summarizes the content of the letters and verbal comments and identifies the EIR section where the issues raised are addressed.

Table 1-1 NOP Comments and EIR Response

Commenters	Summary of Key Issues and Concerns	EIR Section with Response
Agencies		
Bureau of Land Management (BLM) Central Coast Field Office	Recommends consideration of different Trail use patterns by recreational users compared to commuters, and design features or rules that could reduce conflicts; concern that agency use of the Blue Line Road into the National Monument could be affected by FORTAG; concern about habitat management in the “Borderland Parcels” along the western edge of the National Monument; recommendation that the Trail within Borderland Parcels and across the Blue Line Road should be built to support vehicle use by agency staff, especially for the purpose of fire prevention; recommendation to include the Jerry Smith Access Trail as a FORTAG segment	<ul style="list-style-type: none"> ▪ Section 4.4, Biological Resources ▪ Section 4.13, <i>Public Safety and Services</i> ▪ Section 4.17, <i>Wildfire</i>
United States Army Fort Ord Base Realignment and Closure (BRAC) Field Office	Requests that requirements of the Installation-wide Multispecies Habitat Management Plan for Fort Ord be incorporated into the project analysis; requests that provisions from deeds to former Fort Ord properties be considered, including safety requirements related to munitions and reservation of access by the Army, particularly to the Blue Line Road; request for coordination between TAMC, Army BRAC Field Office, and BLM regarding safety/trespassing; requests consideration that hazardous materials cleanups and prescribed burns are both ongoing in the former Fort Ord	<ul style="list-style-type: none"> ▪ Section 4.4, <i>Biological Resources</i> ▪ Section 4.9, <i>Hazards and Hazardous Materials</i> ▪ Section 4.13, <i>Public Safety and Services</i> ▪ Section 4.17, <i>Wildfire</i>
Fort Ord Reuse Authority (FORA)	Encourages consistency with FORA’s Regional Urban Design Guidelines; recommends including trailhead facilities, including one restroom along the National Monument Loop segment and another near the Marina Airport; requests consideration of the greenway element of the project in relation to wildlife connectivity, noting that greenway use could spread invasive species; recommends an integrated invasive species control program, including informational signage	<ul style="list-style-type: none"> ▪ Section 2, <i>Project Description</i> ▪ Section 4.4, <i>Biological Resources</i> ▪ Section 4.11, <i>Land Use and Planning</i>
California Department of Fish and Wildlife (CDFW)	The project could result in “take” of special-status species, pollution to Waters of the State, and diversion/obstruction of streams; numerous special-status species occur within the project study area; recommends mitigation measures.	<ul style="list-style-type: none"> ▪ Section 4.4, <i>Biological Resources</i>
California Department of Transportation (Caltrans)	Support for projects that are consistent with State planning priorities and for projects that support smart growth principles; work in Caltrans right-of-way would require an encroachment permit from Caltrans and must be done to Caltrans standards	<ul style="list-style-type: none"> ▪ Section 4.14, <i>Transportation</i>
California State Parks	Consult with Caltrans and the City of Seaside regarding use and maintenance of the existing undercrossing at 1 st Street; opening the underpass would provide separation between cars and pedestrians/bikes	<ul style="list-style-type: none"> ▪ Section 2, <i>Project Description</i> ▪ An option to utilize the existing pedestrian-only undercrossing of SR 1 was added to the CSUMB Loop South segment

Commenters	Summary of Key Issues and Concerns	EIR Section with Response
Native American Heritage Commission	The project will require compliance with Assembly Bill 52	<ul style="list-style-type: none"> Section 4.15, <i>Tribal Cultural Resources</i> AB 52 consultation was completed
University of California, Santa Cruz	Concerns about trespassing on the University of California, Santa Cruz Fort Ord Natural Reserve; requests dates of the project's biological surveys and asks whether or not the time period was adequate to assess the presence of annual rare plants	<ul style="list-style-type: none"> Section 4.4, <i>Biological Resources</i> Section 4.13, <i>Public Safety and Services</i>
California State University, Monterey Bay (CSUMB)	Requests that the EIR analyze and mitigate potential impacts specific to the campus, such as tree removal, stormwater, maintenance, lighting, safety at crossings, and CSUMB permit requirements, and asks TAMC to work with CSUMB and the Veterans Administration regarding trail alignment	<ul style="list-style-type: none"> Section 2, <i>Project Description</i> Section 4.1, <i>Aesthetics</i> Section 4.4, <i>Biological Resources</i> Section 4.10, <i>Hydrology and Water Quality</i> Section 4.11, <i>Land Use and Planning</i> Section 4.14, <i>Transportation</i>
City of Monterey	Consider motion sensor lighting; conduct a biological assessment for the entire Trail; consider transportation impacts at the Del Monte Avenue/Roberts Lake crossing; include Trail amenities; requests revisions to the project map to identify portions of the North Fremont Ped & Bike project that are constructed or included in FORTAG; study the reconstruction of the Fremont/State Route (SR) 218 intersection; study the safety and aesthetic impacts of underpasses; study the widening of South Boundary Road instead of aligning the Trail through the City's "shark-fin" property	<ul style="list-style-type: none"> Section 4.4, <i>Biological Resources</i> Section 4.13, <i>Public Safety and Services</i> Section 4.14, <i>Transportation</i> Section 4.1, <i>Aesthetics</i>
Marina Municipal Airport	Describes need for coordination between the Marina Municipal Airport, City of Marina, Federal Aviation Administration, and TAMC regarding Trail access on airport property	<ul style="list-style-type: none"> Section 4.11, <i>Land Use and Planning</i> Section 4.14, <i>Transportation</i>
Organizations and Individuals		
Monterey Off-Road Cycling Association	Expresses support for the project and the inclusion of unpaved greenway trails	<ul style="list-style-type: none"> Section 2, <i>Project Description</i>
Fort Ord Recreation Trails Friends	Recommends that Trail rules are consistent across jurisdictions	<ul style="list-style-type: none"> Section 2, <i>Project Description</i>
California Native Plant Society Monterey Bay Chapter	Requests that plant surveys include all potential California Native Plant Society List 4 species in addition to List 1 rare plants; concerns about the Trail resulting in invasive weed proliferation; concerns about management of a fire break zone on the west side of the Trail between Del Rey Oaks and Marina	<ul style="list-style-type: none"> Section 4.4, <i>Biological Resources</i>
Don Gruber	Concerns about impacts to wildlife resulting from routing Trail through Frog Pond; opposition to allowing bikes at Frog Pond	<ul style="list-style-type: none"> Section 4.4, <i>Biological Resources</i> Section 6, <i>Alternatives</i>

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Commenters	Summary of Key Issues and Concerns	EIR Section with Response
James Waidler	Request to prohibit biking at Frog Pond	<ul style="list-style-type: none"> ▪ Section 2, <i>Project Description</i> ▪ Section 6, <i>Alternatives</i>
Roberta Freeman	Concerns about the proposed alignment along Angelus Way related to homelessness; recommendation for the Trail to run along SR 218 as an alternative to the proposed alignment in Del Rey Oaks	<ul style="list-style-type: none"> ▪ Section 4.13, <i>Public Safety and Services</i> ▪ Section 6, <i>Alternatives</i>
Cameron Stormes	Concerns about impacts to biological resources at Frog Pond; notes that Frog Pond could be pedestrian-only	<ul style="list-style-type: none"> ▪ Section 4.4, <i>Biological Resources</i> ▪ Section 6, <i>Alternatives</i>
Nina Muñoz	Opposition to allowing bikes at Frog Pond	<ul style="list-style-type: none"> ▪ Section 6, <i>Alternatives</i>
T. Foster	Concerns about safety on SR 218; concern about noise from SR 218; suggestion to improve the bike lane on SR 218 as an alternative to the proposed alignment in Del Rey Oaks	<ul style="list-style-type: none"> ▪ Section 4.12, <i>Noise</i> ▪ Section 4.14, <i>Transportation</i> ▪ Section 6, <i>Alternatives</i>
Cindy Hickey	Concerns about over-tourism in a small town due to the regional scope of the project; suggest strict ordinance restricting number of events hosted on the Del Rey Oaks portion of the project, concerns about increase in crime as a result of more people in the neighborhood due to project; personal and financial liability for homeowners regarding bridges over existing creek; concerns about the proposed alignment related to homelessness and drug use; concerns related to parking impacts due to project; concern character of Frog Pond will change; suggest a lighted crosswalk instead of the proposed tunnel at SR 218	<ul style="list-style-type: none"> ▪ Section 4.4, <i>Biological Resources</i> ▪ Section 4.13, <i>Public Safety and Services</i> ▪ Section 4.14, <i>Transportation</i> ▪ Section 6, <i>Alternatives</i>
Scoping Meeting Verbal Comments	<ul style="list-style-type: none"> ▪ Safety and aesthetic impacts at underpasses ▪ Lighting impacts on residences and habitats ▪ Geologic stability at Work Memorial Park and along Angelus Way ▪ Impacts at Frog Pond related to flooding, pedestrian/bicycle conflicts, visual impacts, Trail cutting, and transient encampments ▪ Recommendation to utilize SR 218 as an alternative to the proposed alignment in Del Rey Oaks ▪ Recommendation of an overpass rather than underpass at General Jim Moore Boulevard ▪ Food safety risks and liability issues related to Trail use near agriculture ▪ Recommendation of dual use of the Blue Line Road for Trail use and agency access ▪ Recommendation to utilize the State Route 1 (SR 1) pedestrian underpass west of CSUMB rather than the vehicular underpass ▪ Recommendation for solar-powered and/or motion sensor lighting ▪ Recommendation to shift the Trail eastward to provide more access to the National Monument 	<ul style="list-style-type: none"> ▪ Section 2, <i>Project Description</i> ▪ Section 4.1, <i>Aesthetics</i>, ▪ Section 4.4, <i>Biological Resources</i> ▪ Section 4.7, <i>Geology and Soils</i> ▪ Section 4.11, <i>Land Use and Planning</i> ▪ Section 4.13, <i>Public Safety and Services</i> ▪ Section 6, <i>Alternatives</i> ▪ An option to utilize the existing pedestrian-only undercrossing of SR 1 was added to the CSUMB Loop South segment

1.4 EIR Scope and Content

The scope and content of the EIR is guided by the requirements set forth in the *CEQA Guidelines* and input gathered during the NOP and scoping process. This EIR evaluates the potential impacts of the project in relation to the following environmental topics:

1. Aesthetics
2. Agriculture and Forestry Resources
3. Air Quality
4. Biological Resources
5. Cultural Resources
6. Energy
7. Geology and Soils
8. Greenhouse Gas Emissions
9. Hazards and Hazardous Materials
10. Hydrology and Water Quality
11. Land Use and Planning
12. Noise
13. Public Safety and Services
14. Transportation
15. Tribal Cultural Resources
16. Utilities and Services Systems
17. Wildfire

This EIR addresses the issues referenced above and identifies potentially significant environmental impacts, including project-specific and cumulative effects, of the project in accordance with the provisions set forth in the *State CEQA Guidelines*. In addition, this EIR recommends feasible mitigation measures, where possible, that would reduce or eliminate significant adverse environmental effects.

Detailed evaluation in this EIR was not necessary for all environmental checklist items. Items that were determined not to be significant are discussed in **Section 4.18, *Effects Found Not to be Significant***, and include mineral resources, population and housing, and recreation, as well as one significance criteria for geology and soils.

This EIR identifies significant environmental impacts, significant irreversible changes in the environment, and growth inducement.

1.5 EIR Organization

In addition to this section, the EIR contains the following sections.

- **Section 2, *Project Description***, describes the project in detail.
- **Section 3, *Environmental Setting***, provides a general overview of the environmental setting for the proposed project.
- **Section 4, *Environmental Impact Analysis***, discusses various resources potentially affected by the project, as outlined in the *EIR Scope and Content* section. Section 4 presents the regulatory setting and existing conditions relevant to each environmental topic, and identifies the impacts and mitigation measures for each such topic.
- **Section 5, *Other CEQA-Required Discussions***, provides a cumulative analysis, summarizing the cumulative impacts from Section 3, and discussion of growth-inducing impacts, significant environmental impacts that cannot be avoided, significant irreversible environmental changes, and energy effects.
- **Section 6, *Alternatives***, describes the various alternatives considered and either dismissed from further analysis or analyzed in this document.
- **Section 7, *Preparers and References***, provides a list of preparers of and contributors to the EIR, and a bibliography.

2 Project Description

This section describes the proposed Fort Ord Regional Trail and Greenway (FORTAG or Trail) project, including the major physical characteristics, project location, surrounding land uses, project objectives, and discretionary actions needed for approval. **Figure 2-1** shows the regional location of the project, **Figure 2-2** through **Figure 2-4** provide an overview of the proposed FORTAG alignment, **Figure 2-5** shows the jurisdictional boundaries, and **Figure 2-6** shows the EIR study area.

2.1 Overview

The FORTAG project would involve the phased construction of a multi-use trail in northwestern Monterey County, generally encircling the cities of Seaside and Marina and the California State University, Monterey Bay (CSUMB) campus. The lead agency for the project is the Transportation Agency of Monterey County (TAMC), pursuant to an agreement dated September 27, 2017 among TAMC, the County of Monterey, and the cities of Del Rey Oaks, Marina, Monterey, and Seaside. The development, construction, operation, and maintenance of FORTAG would be managed under a Master Agreement (MA), to be executed by TAMC and the jurisdictions within whose boundaries FORTAG is located.

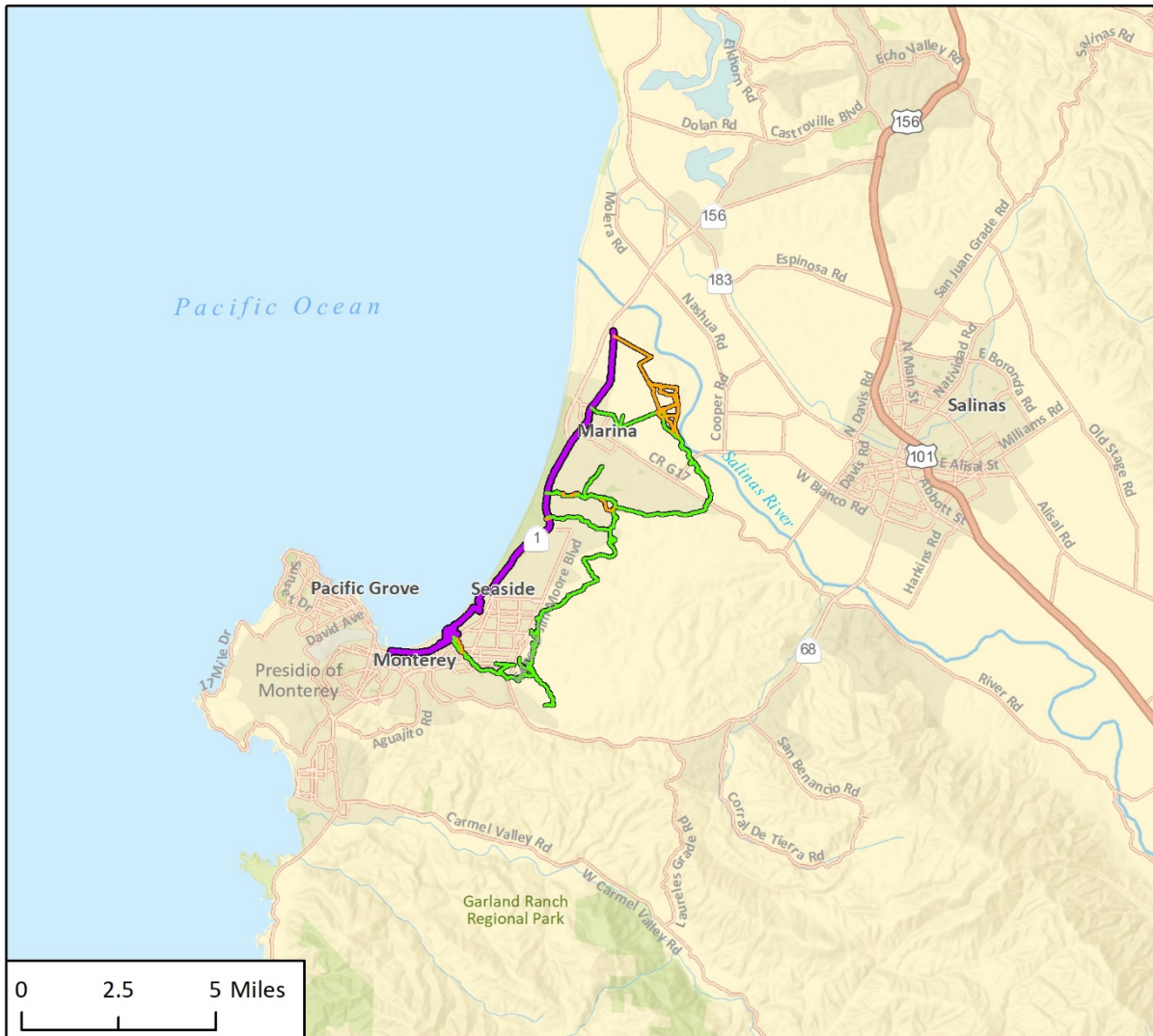
The proposed FORTAG alignment includes approximately 28 miles of new paved trail, primarily on the inland side of State Route 1 (SR 1). The Trail would accommodate pedestrians and bicyclists of all abilities. Within portions of some segments, the proposed alignment would include an adjacent four- to eight-foot side path separated from the main path to accommodate equestrian use. The side path would be composed of compacted native soil and separated from the paved path by a minimum of four feet. Dogs would be allowed on-leash throughout the system. The estimated number of Trail users would be between 1,000 and 3,000 daily, with the highest usage occurring on the CSUMB campus and near the existing Monterey Bay Coastal Recreation Trail (Coastal Rec Trail) (Powell 2019).

Most of the Trail would be a 12-foot-wide paved path, with a two-foot-wide unpaved shoulder on both sides, for a total width of 16 feet. For approximately 1.3 miles of the Trail (4.6 percent of the total proposed alignment), FORTAG would include the adjacent four- to eight-foot wide side path. A small portion of the Trail (approximately 2,000 feet or one percent) would be developed on existing paved roadways in two locations: in the City of Del Rey Oaks on Angelus Way, between Rosita Road and Del Rey Gardens; and in the City of Marina on Beach Road, between Del Monte Boulevard and De Forest Road. Where space allows, the Trail would be surrounded by an open space greenway buffer on both sides.

In the Frog Pond Wetland Preserve in the City of Del Rey Oaks, the proposed Trail width would be reduced to eight feet, and a stable, permeable surface would be used in lieu of impermeable pavement, due to the sensitive natural resources in the area.

Figure 2-1 shows the regional location of the project, **Figure 2-2** through **Figure 2-4** provide an overview of the proposed Trail alignment. In addition to the proposed alignment, design options have been identified in some areas. This EIR includes analysis of both the proposed alignment as well as the identified design options.

Figure 2-1 Regional Location



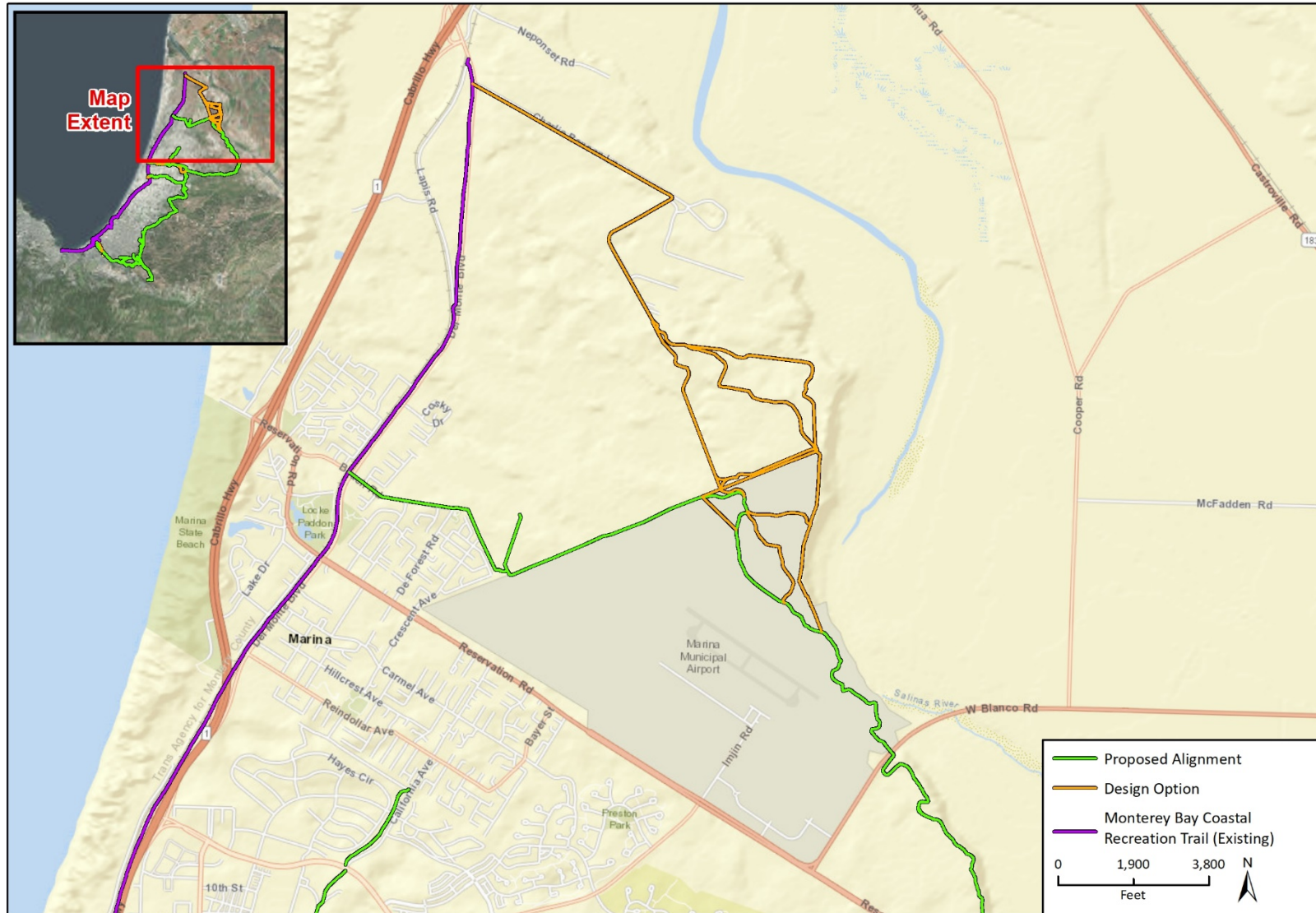
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 Additional data provided by Alta Planning + Design, 2019.

- Proposed Alignment
- Design Option
- Monterey Bay Coastal
- Recreation Trail (Existing)



Fig 2-1 Regional Location

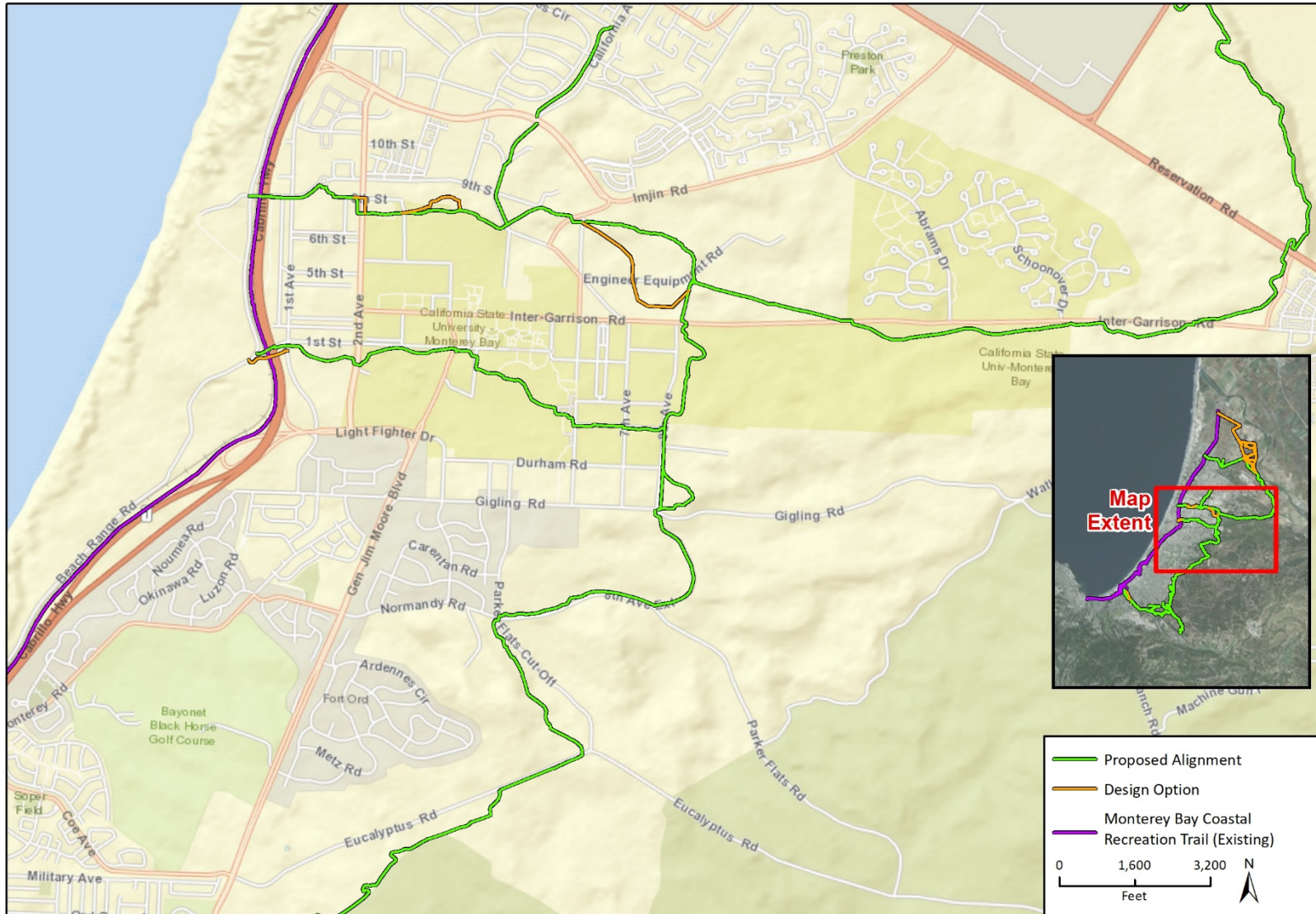
Figure 2-2 FORTAG Alignment Overview: Marina



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Fig 2-2 Proposed Alignment_North_Landscape

Figure 2-3 FORTAG Alignment Overview: CSUMB



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Fig 2-3 Proposed Alignment_Central_Landscape

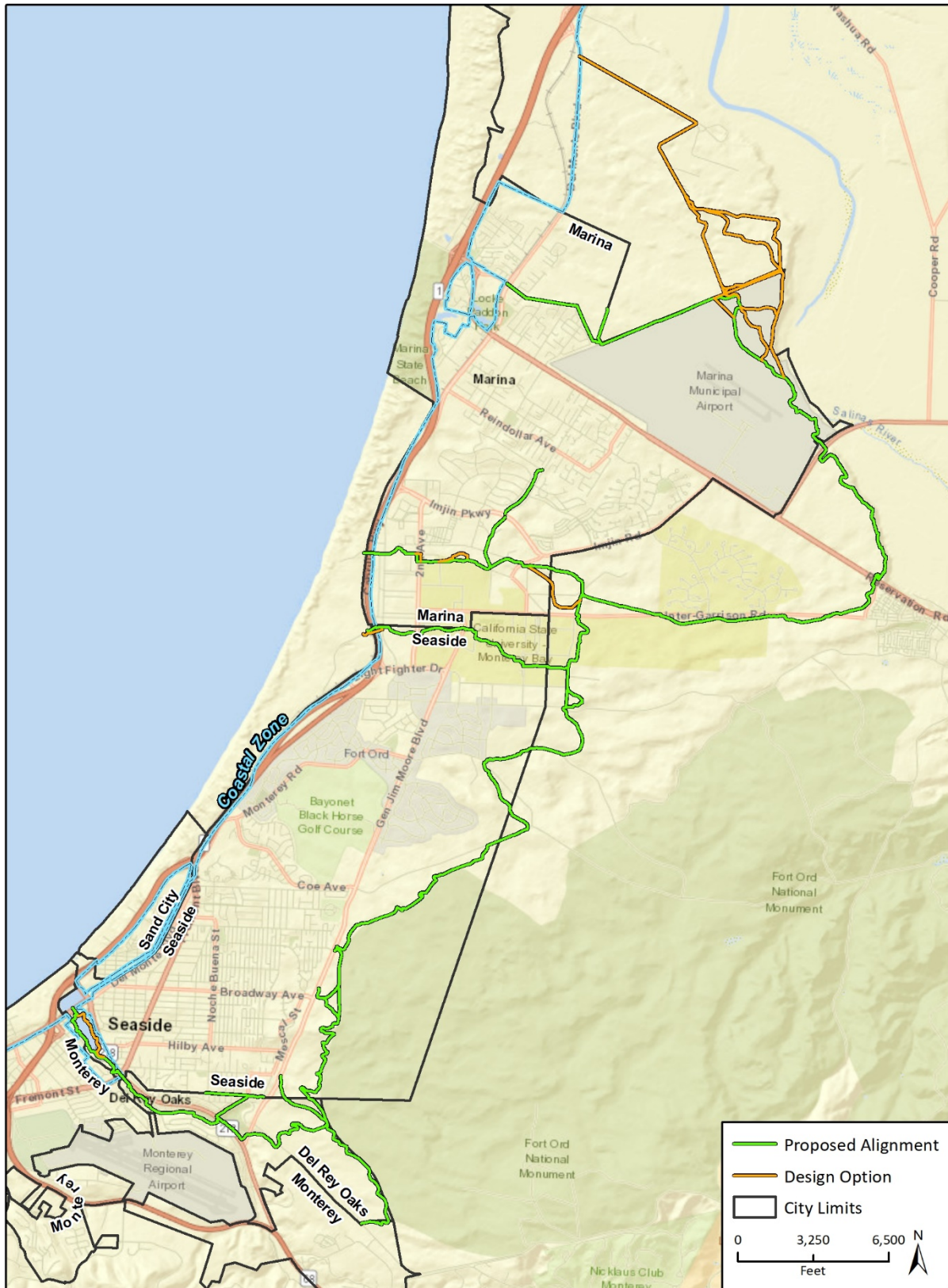
Figure 2-4 FORTAG Alignment Overview: Seaside/Del Rey Oaks



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 Additional data provided by Alta Planning + Design, 2019.

Fig 2-4 Proposed Alignment_South_Landscape

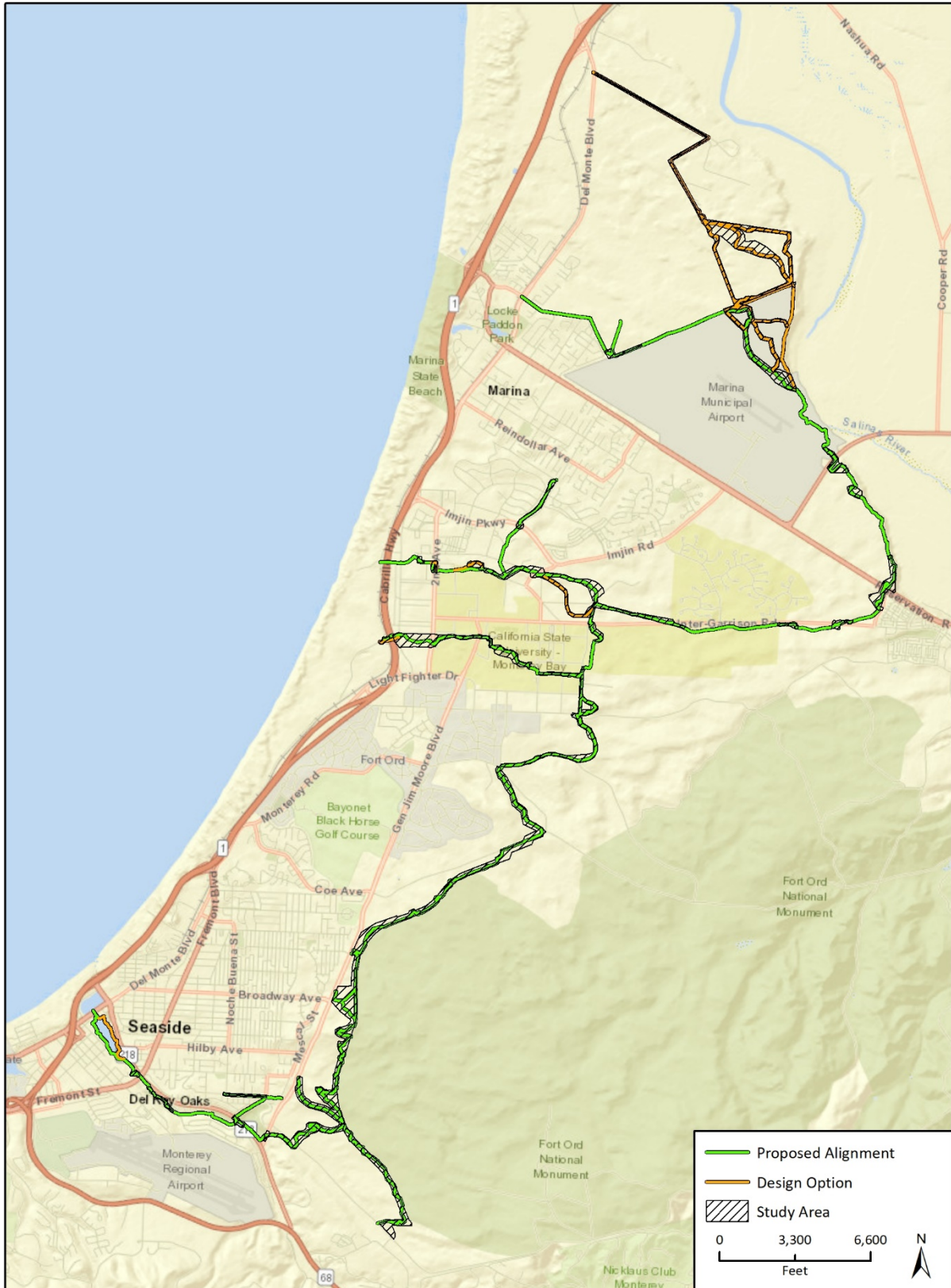
Figure 2-5 Jurisdictional Boundaries



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 Additional data provided by Alta Planning + Design, 2019.

Fig. 2-5 Jurisdictional Boundaries

Figure 2-6 FORTAG EIR Study Area



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Fig. 2-6 Study Area Buffer

2.2 Project Location

The Trail would be located in northwestern Monterey County, traversing sections of the cities of Monterey, Del Rey Oaks, Seaside, and Marina, as well as unincorporated Monterey County. Additionally, portions of the project are within or adjacent to areas managed by CSUMB, the Fort Ord Reuse Authority (FORA)¹, the U.S. Army, the California Department of Transportation (Caltrans), the University of California Santa Cruz, Pacific Gas & Electric (PG&E), and the Monterey Peninsula Regional Park District. Some portions of the alignment are also within the California Coastal Zone. The Trail would not be located on any State or Federal property.

The Trail would connect up to the existing Coastal Rec Trail, portions of which are under the jurisdiction of California State Parks, and the North Fremont Bicycle and Pedestrian Project in the City of Monterey. The FORTAG connections to the existing Coastal Rec Trail would form continuous trail circuits, as shown on **Figure 2-1**, but the FORTAG project would not involve any direct modifications to the Coastal Rec Trail.

The proposed alignment, when combined with the existing Coastal Rec Trail, would generally form three loops that roughly encircle the City of Marina, the CSUMB campus, and the City of Seaside, respectively (**Figure 2-1**).

2.3 Project Purpose and Objectives

The purpose of the Project is to provide an accessible multi-use path for recreation and active transportation for residents and visitors.

The project supports the following objectives:

1. Function as an active transportation artery for commuting and recreation, providing a safe, accessible, and separated alternative to motorized travel that reduces vehicle trips and associated emissions
2. Connect people and disadvantaged communities to open space and recreational activities from their homes, workplaces, and hospitality bases
3. Enhance connections between the former Fort Ord, Monterey Peninsula, and Salinas Valley communities, and provide additional opportunities for physical exercise and stress reduction for residents and visitors
4. Utilize existing built trails and roadways where possible to minimize impact to the natural environment while maintaining gentle grades for accessibility and providing access to viewpoints
5. Provide interpretative and educational opportunities for trail users to experience and learn about the historic military use of the former Fort Ord, biological and other natural resources, and the Monterey Bay coast
6. Utilize public lands where possible and encourage the incorporation of the Trail into planning and future development
7. Create economic benefits from associated retail, hospitality, and competitive events

¹ FORA is scheduled to sunset in 2020. A plan for transition has not been approved as of the date of this draft.

2.4 Project Characteristics

2.4.1 Trail Alignment

The FORTAG corridor is organized into seven segments, each of which is illustrated in **Figure 2-7** and summarized in **Table 2-1**. There are several design options under consideration in some of the segments, including for the alignment itself, as well as for roadway crossings. These design options are described in the segment descriptions below and shown in **Figure 2-8** through **Figure 2-10**.

The proposed Trail alignment would cross public roadways in several locations. Most of these crossings would be at-grade, requiring improvements and modifications, such as roadway and lane modifications; construction of roundabouts, medians, curb extensions, warning devices, and traffic control devices; and enhanced safety lighting, signing, and striping. The Trail could include a certain number of grade-separated crossings, including undercrossings and pedestrian/bicycle bridges, if such design options are selected. The locations of the crossings are shown in **Figure 2-11**. The specific types of crossings within each segment are described in the following section.

Table 2-1 Trail Segments

Segment	Length (miles)	Jurisdiction(s)
Northern Marina	2.29	Marina, Monterey County
Northern Loop	6.40	Marina, Monterey County
CSUMB Loop North	3.03	Marina, CSUMB
CSUMB Loop South	2.68	Seaside, Monterey County, CSUMB
National Monument Loop	7.97	Seaside, Monterey County
Canyon Del Rey/SR 218	3.97	Seaside, Monterey, Del Rey Oaks, Monterey County, Coastal Commission
Ryan Ranch	1.43	Del Rey Oaks, Monterey County

Study Area

In addition to the proposed alignment and design options, this EIR examines a study area in some locations that is wider than the footprint of the proposed Trail, as shown in **Figure 2-6**. The study area is defined as the trail alignment and additional areas identified for analysis, to allow for a construction buffer and flexibility at later stages of design, and to support avoidance of sensitive natural resources through trail design where feasible. This resulted in an irregular study area that generally occurs as a 100-foot wide corridor with various areas in which the corridor has been expanded. Throughout this EIR, the study area refers to an area far broader than the impact area that would result from Trail development. The 16-foot wide Trail (12-foot-wide paved path, with a two-foot-wide unpaved shoulder on both sides) as currently defined is herein referred to as the “trail corridor.” Wherever possible, the project would include a greenway of up to 150 feet on both sides, or 300-foot-wide total. The greenway would be narrower in certain locations depending on terrain and right-of-way available. The greenway is intended to be undeveloped, allowing for habitat and open space enjoyment. FORTAG would not include the construction of trails in this greenway, and use of the greenway by hikers, mountain bikers, and/or equestrians would be discouraged except within the side path, where included. The study area did not include the associated greenway, as no project development is proposed for this area.

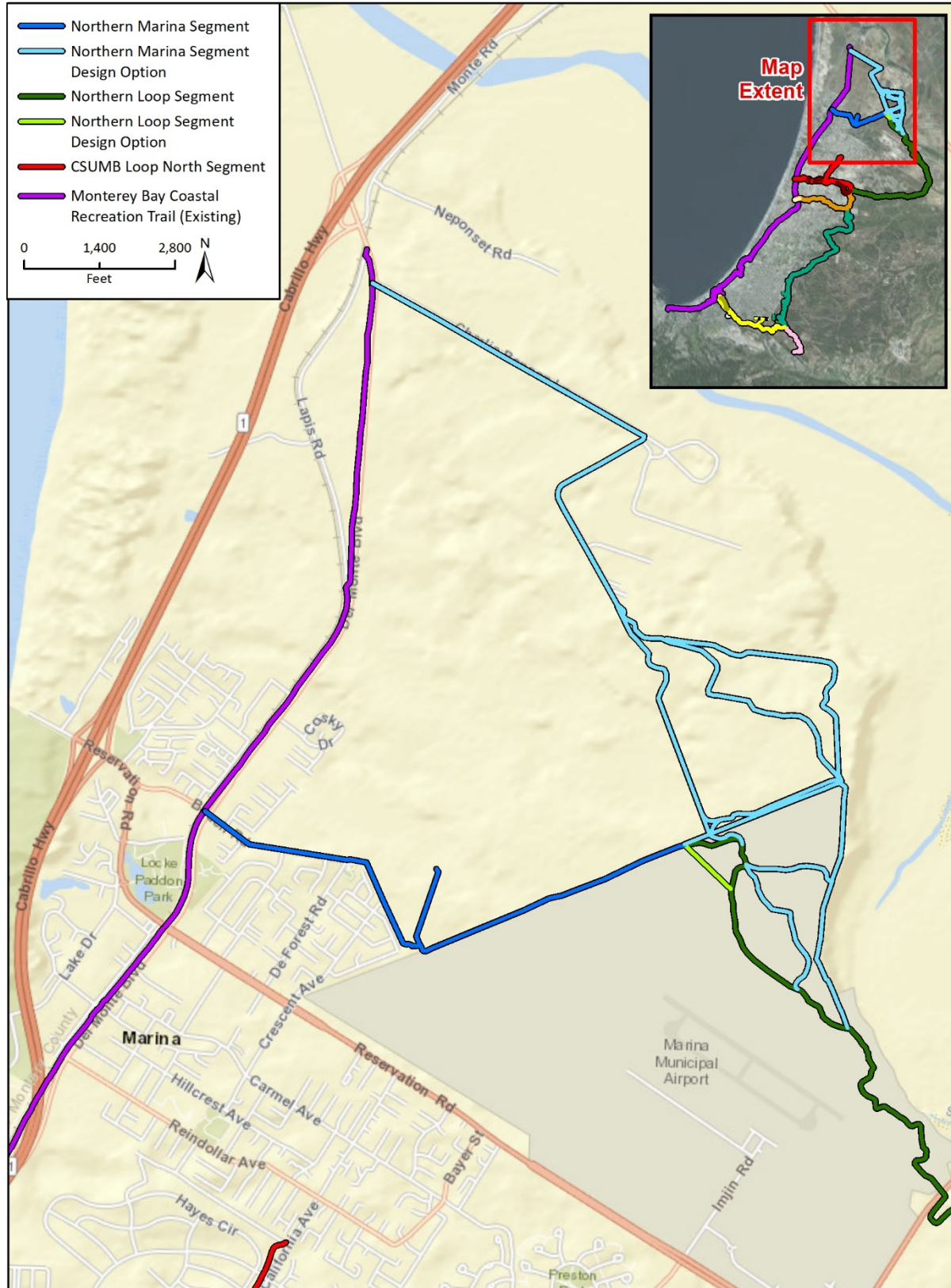
Figure 2-7 Trail Segments



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Fig. 2-7 Trail Segments

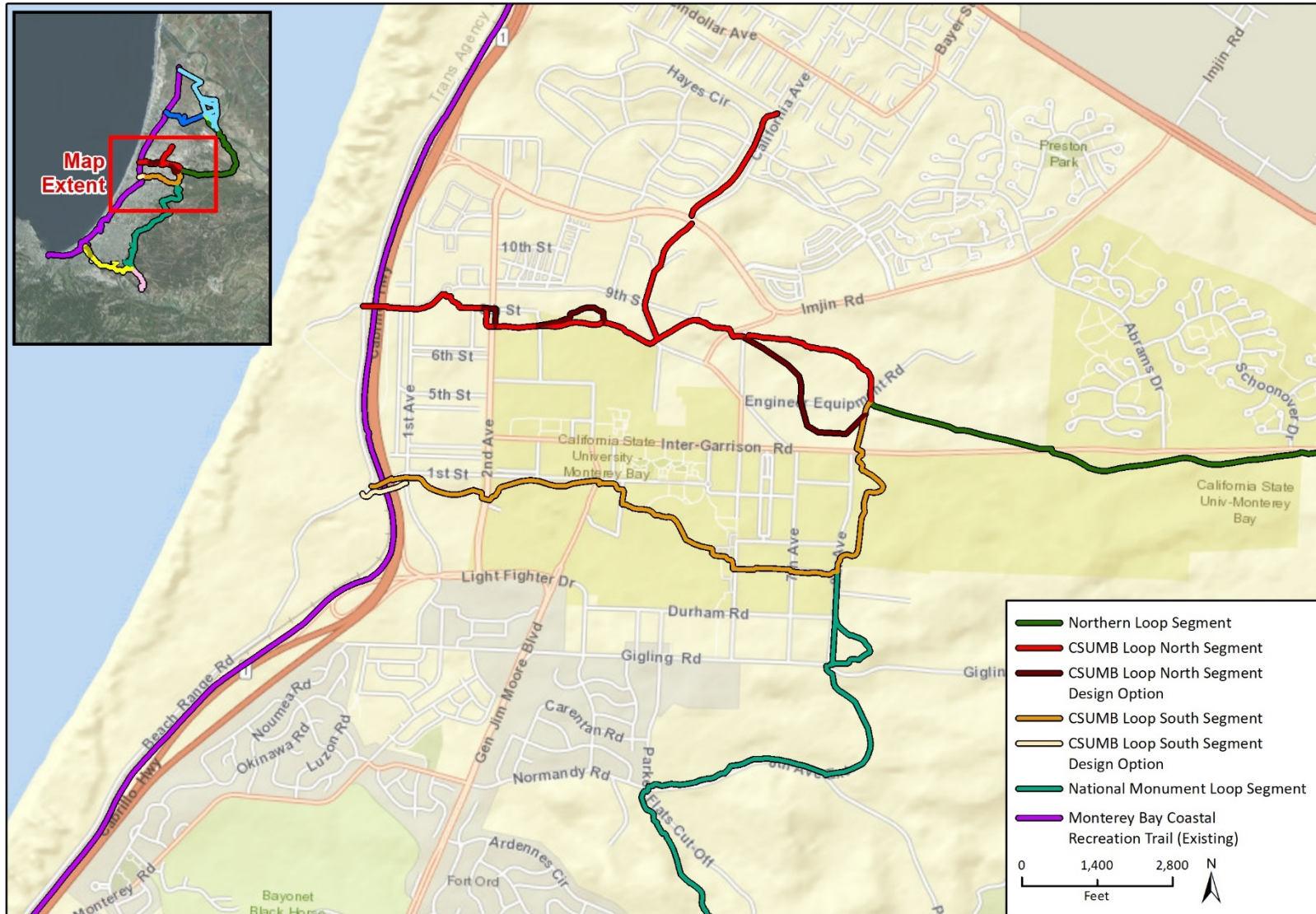
Figure 2-8 Northern Marina and Northern Loop Segment Design Options



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Additional data provided by Alta Planning + Design, 2019.

Fig. 2-8 Marina Design Options

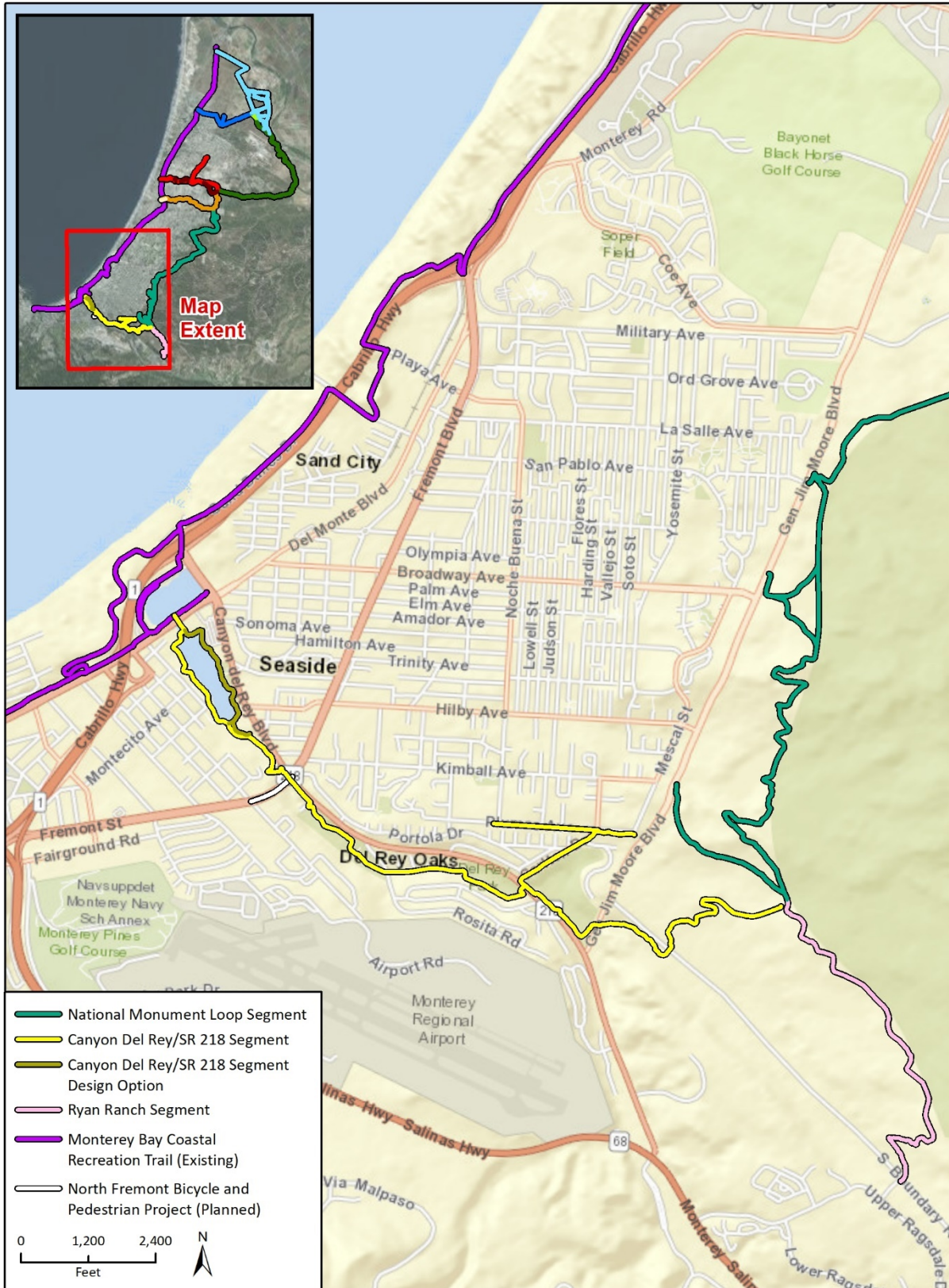
Figure 2-9 CSUMB Area Design Options



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Fig 2-8 CSUMB Options_Landscape

Figure 2-10 Del Rey Oaks/SR 218 Segment Design Options



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Fig. 2-9 Canyon del Rey Options

Figure 2-11 Overcrossings, Undercrossings, and Roundabouts



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 Additional data provided by Alta Planning + Design, 2019.

Fig 2-11 Bridges and Undercrossings

Northern Marina Segment

The Northern Marina segment is located north of the City of Marina and is shown in **Figure 2-8**. The proposed alignment for the Northern Marina segment would extend along Beach Road from Del Monte Boulevard on the west to De Forest Road. Along Beach Road, the trail options include either a Class II facility, which includes a bike lane along the north side of the street; or a Class III facility, which is a bike boulevard on both sides of the street. At De Forest Road, the Trail would exit the roadway right-of-way on the north side of Windy Hill Park and run along the back side of residences, on publicly-held land adjacent to Estrella Del Mar Way and Quebrada Del Mar Road. The Trail would then extend northeast along the boundary of the Marina Municipal Airport Property, connecting with the Northern Loop segment north of the Marina airport.

Design Options

There is intent to establish one alignment through the area north of the Marina Airport. Potential alignments, shown in **Figure 2-8**, are currently being explored as design options, but only one alignment would be chosen for final design.

Roadway Crossings

The Northern Marina segment would include at-grade crossings at Del Monte Boulevard and Begonia Circle in the City of Marina if the portion of this segment along Beach Road entails a Class II bike lane facility on the north side of the street. If a Class III bike boulevard is constructed along Beach Road, the Trail on the southern side of the road would also require at-grade crossings at Fitzgerald Circle, Melanie Road, and Villa Circle.

Northern Loop Segment

From northeastern Marina, the Northern Loop segment would traverse through Marina Municipal Airport property, near the Salinas River, to Blanco Road. The Trail would cross Blanco Road via a new bicycle/pedestrian bridge. On the south side of Blanco Road, the Trail would continue southeast to Reservation Road, crossing Reservation Road via a new undercrossing approximately 150 feet west of Inter-Garrison Road. The alignment would then continue southwest, generally south of Inter-Garrison Road, crossing Inter-Garrison Road twice. The western Inter-Garrison crossing would be via an existing at-grade crossing and the eastern crossing would be a new at-grade crossing. The Trail would continue northwestward to Engineering Equipment Road. The Northern Loop segment is shown in **Figure 2-2** and **Figure 2-3**.

Design Options

The Northern Loop segment includes a design option to remain on the south side of Inter-Garrison Road up to 8th Avenue, rather than extending northwest toward Engineering Equipment Road. This design option is shown in **Figure 2-9**.

Roadway Crossings

The Northern Loop would include two separated grade crossings at Inter-Garrison Road: 1) a bicycle/pedestrian bridge over Blanco Road, and 2) an undercrossing west of the Reservation Road/Inter-Garrison Road intersection.

CSUMB Loop North Segment

From west to east, the CSUMB Loop North segment would extend from the existing Coastal Rec Trail, over SR 1 via an existing overcrossing at 8th Street. The alignment would continue east along the southern side of 8th Street. The proposed alignment would cross 2nd Avenue approximately 300 feet south of the 2nd Avenue/8th Street intersection via a new roundabout and/or undercrossing. The roundabout would provide an interim at-grade crossing across 2nd Avenue until the undercrossing can be funded and constructed. However, the roundabout and at-grade crossing may remain following construction of the undercrossing. From 2nd Avenue, the Trail would continue east, generally south of 8th Street and through an existing intermittently used parking lot on the CSUMB campus. A new roundabout would be constructed at 8th Street and 5th Avenue with an at-grade crossing. The Trail would cross Imjin Road via a new pedestrian/bicycle bridge and then loop to the south toward Engineering Equipment Road. From here, this segment would connect with the Northern Loop extending further to the east and the CSUMB Loop South segment extending to the south.

Design Options

Two alignment design options and two crossing design options are considered for the CSUMB Loop North segment. Alignment design options are shown in **Figure 2-9**. From west to east, these include: (1) diverging from the proposed alignment at 3rd Avenue to the north for approximately 1,500 feet; and (2) continuing in a more southerly direction toward Engineering Equipment Road, crossing this road, and then looping up to the north to connect with the Northern Loop segment approximately 630 feet north of Inter-Garrison Road. At the intersection of 8th Street and 2nd Avenue, two design options are considered for the Trail to cross 2nd Avenue: (1) constructing a new roundabout at the intersection rather than creating a mid-block crossing south of this intersection; or (2) constructing an undercrossing beneath 2nd Avenue.

Roadway Crossings

The CSUMB Loop North segment would include a new bicycle/pedestrian bridge over Imjin Road between Imjin Parkway and 8th Street. As described above, two design options are considered for the Trail to cross 2nd Avenue: a roundabout or an undercrossing. The roundabout would provide interim access until the undercrossing can be funded and constructed and may remain in place following construction of the undercrossing. In addition, this segment would cross SR 1 utilizing an existing overcrossing at 8th Street in the City of Marina. Striping would be added to the existing overcrossing to create a two-way bike path. The CSUMB Loop North segment would also include at-grade crossings at 1st Avenue, 8th Street/5th Avenue, and Engineering Equipment Road.

CSUMB Loop South Segment

From west to east, the CSUMB Loop South segment would extend from the existing Coastal Rec Trail beneath SR 1 via an existing undercrossing at 1st Street/Divarty Street. The Trail would remain on the south side of Divarty Street as it extends east to cross 1st Avenue to the intersection of 2nd Avenue and the Athletic Complex. A new roundabout would be constructed to provide an at-grade crossing. The Trail would continue to General Jim Moore Boulevard via at-grade crossings. East of General Jim Moore Boulevard, the Trail would turn southwest behind the Academic 3 building, Joel and Dena Gambord Business and Information Technology building, and Tanimura & Antle Family Memorial Library on the CSUMB campus. The Trail would then cross 6th Avenue and extend eastward along Butler Street to 8th Avenue. The segment would then turn to the north to travel

parallel to and east of 8th Avenue to connect with the CSUMB North segment and the Northern Loop segment approximately 820 feet north of Inter-Garrison Road.

Design Options

Two design options are considered for the FORTAG alignment in the CSUMB Loop South segment. As shown in **Figure 2-9**, the first would entail use of an existing pedestrian-only undercrossing at SR 1 approximately 120 feet south of the undercrossing at 1st Street/Divarty Street. The second design option would run south of (but generally parallel to) the proposed alignment for approximately 1,600 feet from parking lot 508 to parking lot 29 on the CSUMB campus, south of the Tanimura & Antle Family Memorial Library, the Joel and Dena Gambord Business and Information Technology building, and the Academic 3 building. One roadway crossing design option is also considered in this segment: rather than an at-grade crossing at 2nd Avenue, the option would entail constructing a roundabout on Divarty Street at the entrance to the existing parking lot south of 2nd Avenue.

Roadway Crossings

The CSUMB Loop North segment would cross SR 1 at 1st Street/Divarty Street via an existing undercrossing. Improvements to the existing undercrossing would include creation of a shared sidewalk/bike path through the tunnel, grade-separated from vehicular traffic, and improved lighting. At 2nd Avenue and Divarty Street, the proposed alignment would include an at-grade crossing of 2nd Avenue approximately 440 feet south of Divarty Street. As a design option, the project may include construction of a roundabout at 2nd Avenue and Divarty, as described above. Additional at-grade crossings in this segment include: 1st Avenue, 4th Avenue, Engineering Lane, 6th Avenue, 7th Avenue, and 8th Avenue. The Trail would also utilize an existing roundabout at Inter-Garrison Road and 8th Avenue at the northern extent of the CSUMB Loop North segment, where it connects with the CSUMB Loop North and Northern Loop segments.

National Monument Loop Segment

From the southeast corner of the CSUMB campus, the National Monument Loop segment would continue south, immediately east of 8th Avenue to Gigling Road and then parallel to 8th Avenue to Parker Flats Cut Off Road. The intersection of Gigling Road and 8th Avenue would include a roundabout to clarify the right-of-way for Trail users and separate the Trail from 8th Avenue. In this area, there would also be an approximately 1,700-foot-long bypass from the main spine to a vista point approximately 750 feet east of 8th Avenue. From 8th Avenue, the Trail would abut the northern shoulder of Parker Flats Cut Off Road to the east before crossing to the southwest at the intersection of Parker Flats Cut Off Road and Normandy Road, northwest of the Central Coast Veterans Cemetery.

From there, the National Monument Loop segment would extend southeast to the vicinity of Eucalyptus Road and then southwest toward General Jim Moore Boulevard. East of the City of Seaside, the Trail would curve along the westernmost border of the Fort Ord National Monument to connect with the Canyon Del Rey/SR 218 and Ryan Ranch segments. This segment would additionally include connections from the eastern terminus of Broadway Avenue in the City of Seaside, with a trail extending both northeast and southeast to connect to FORTAG, and another connection south and east from General Jim Moore Boulevard near the terminus of Kimball Avenue in the City of Seaside.

Roadway Crossings

The National Monument Loop segment would include five at-grade roadway crossings, including: Joe Lloyd Way, Gigling Road, Normandy Road, Parker Flats Cut Off Road, and Eucalyptus Road.

Canyon Del Rey/SR 218 Segment

From the southern terminus of the National Monument Loop segment, the Canyon Del Rey/SR 218 segment would meander southward toward South Boundary Road and then southwest toward General Jim Moore Boulevard.

The Trail would cross under General Jim Moore Boulevard via a new undercrossing into the Frog Pond Wetland Preserve in the City of Del Rey Oaks. The alignment would follow the existing trail within the Preserve south and then west along the eastern and southern perimeter of the Frog Pond Wetland Preserve before crossing Canyon Del Rey Boulevard. At this location, the Trail would be comprised of an eight-foot wide stable, permeable surface due to the sensitive natural resources in the area. No additional shoulder or separated trails are proposed. The proposed Trail improvements would only occur from the General Jim Moore Boulevard undercrossing to the south, then west adjacent to SR 218. Improvements would not be made to the entire loop trail around the Frog Pond Wetland Preserve, and bikes would be prohibited except along the FORTAG alignment.

From Canyon Del Rey/SR 218 near the Del Rey Oaks City Hall, the Trail would extend northeast up Carlton Drive to Plumas Avenue. At Plumas Avenue, the Trail would extend within a PG&E easement along the south side of Plumas Avenue west toward Del Rey Woods Elementary School and east to the top of Plumas Avenue near General Jim Moore Boulevard. The Trail would cross SR 218 from the Frog Pond Wetland Preserve to the south side of SR 218 through a new undercrossing and continue east on the south side of Del Rey Park, along the existing paved Angelus Way right-of-way, and then through Work Memorial Park to the Safeway Shopping Center. Adjacent to the Safeway market, the Trail would abut Canyon Del Rey Boulevard/SR 218, crossing Fremont Boulevard within the existing intersection crosswalk. At this location, FORTAG would connect with the planned North Fremont Street Bicycle and Pedestrian Project in the City of Monterey. On the west side of Fremont Boulevard, the Trail would switch back into Laguna Grande Regional Park, traversing the southwestern side of Laguna Grande in the City of Monterey, before crossing Del Monte Boulevard via a new signalized crosswalk to connect with the existing Coastal Rec Trail at Roberts Lake Park.

Design Options

The Canyon Del Rey/SR 218 segment includes several design options for crossing Canyon Del Rey Boulevard and two alignment design options. The proposed alignment would include an undercrossing beneath Canyon Del Rey Boulevard. As a design option, this crossing may instead be an at-grade crossing (mid-block) or new signal and crosswalk at SR 218 and Carlton Drive.

One alignment design option is shown in **Figure 2-10**. This design option would extend along the northeastern side of Laguna Grande Regional Park in the City of Seaside, rather than the southwestern side of the park in the City of Monterey.

Roadway Crossings

The Canyon Del Rey/SR 218 segment would include an undercrossing beneath General Jim Moore Boulevard and an undercrossing beneath SR 218 approximately 140 feet southeast of Carlton Drive. This segment also includes at-grade crossings at South Boundary Road, Fremont Street, and Del Monte Boulevard. At Del Monte Boulevard, the crossing would require a new traffic signal between

English Avenue and SR 218 on the Monterey/Seaside boundary to connect FORTAG to the existing Coastal Rec Trail. This traffic signal would be tied into the City of Monterey’s adaptive traffic signal control system.

Ryan Ranch Segment

From the southern terminus of the National Monument Loop segment, the Ryan Ranch segment would extend southeast toward the Ryan Ranch Business Park, crossing South Boundary Road at the east side of Rancho Saucito. This segment would connect the main FORTAG spine with employment areas in the Ryan Ranch Business Park in the City of Monterey.

There are no design options in the Ryan Ranch segment.

Roadway Crossings

The Ryan Ranch segment would include one at-grade road crossing at the east leg of South Boundary Road and Rancho Saucito intersection.

2.4.2 Trail Design

FORTAG would meet Americans with Disabilities Act (ADA) requirements for Class I bike paths throughout the entirety of the off-street portion of the Trail (approximately 99 percent of the total trail length). Class I bike paths are facilities for the exclusive right-of-way of bicycles and pedestrians, with motor vehicle use prohibited (Caltrans 2015). For accessibility standards, Caltrans adopts the trail guidance provided by the “Final Guidelines for Outdoor Developed Areas” as found on the US Access Board Website (Caltrans 2017, United States Access Board 2013). The Trail accessibility standards therein include requirements for a firm and stable trail surface and a maximum grade of 12 percent.

On-street trail segments would match the grade of the existing road, and would be Class II, Class III, or Class IV bike paths. Class II bike paths are bike lanes established along streets, Class III bike paths are preferred bike routes designated on streets shared with motor vehicle traffic, and Class IV bike paths are separated bikeway for exclusive use by bicycles.

The Trail would be paved with asphalt, with the exception of the Frog Pond Wetland Preserve area in the Canyon Del Rey/SR 218 segment, where the Trail would be composed of a stable, permeable surface in lieu of asphalt pavement. Approximately 2,000 feet of the Trail would be on existing paved roadways in two locations: in the City of Del Rey Oaks on Angelus Way between Rosita Road and Del Rey Gardens (Canyon Del Rey/SR 218 segment); and in the City of Marina on Beach Road between Del Monte Boulevard and De Forest Road (Northern Marina segment). A total of approximately nine miles of the Trail would follow existing roadways or paths; 18 miles would be located on land without a pre-existing trail or roadway.

Trail Width

The typical Trail cross-section would be 12 to 16 feet wide and would consist of:

- 8 to 12-foot-wide paved path with striping to separate travel directions
- 2-foot-wide unpaved shoulder on both sides of the Trail
- Greenway on both sides of varying widths (up to 150 feet on both sides, or 300-foot-wide total)

Approximately 1.3 miles of the proposed alignment would also include an adjacent side path, consisting of:

- 4 to 8-foot-wide compacted native soil path
- 2-foot-wide unpaved shoulder on both sides of the side path

Where the Trail includes a side path, the total Trail cross-section would be up to 28 feet wide. The locations of the side path are shown in **Figure 2-12** and example cross-sections of the Trail without and with the side path are shown in **Figure 2-13** and **Figure 2-14**. A four foot buffer area, two feet on each side of the Trail, would occur where FORTAG is adjacent to an existing path.

In the Frog Pond Wetland Preserve in the City of Del Rey Oaks, the total Trail width would be reduced to eight feet due to the sensitive natural resources in the area. Improvements would only be made to a 0.3 mile portion of the existing unpaved trail within the Frog Pond that coincides with the FORTAG alignment. A typical cross-section within the Frog Pond Wetland Preserve area is provided in **Figure 2-15**.

The greenway would be up to 150 feet on both sides, or 300-foot-wide total. The greenway would be narrower in certain locations depending on terrain and right-of-way available.

Trail Amenities and Features

Trail Amenities

FORTAG would include amenities such as rest areas, benches, and shade structures along the project alignment, except in the Marina Municipal Airport designated safety zones. Amenity areas would be located adjacent to the Trail access points and key view points along the proposed alignment in a four-foot wide area with a stable, permeable surface or compacted native soil. Viewpoint and trailhead amenities would not be constructed in wetlands or other sensitive habitats. An example Trail cross-section with amenity area is provided in **Figure 2-16**.

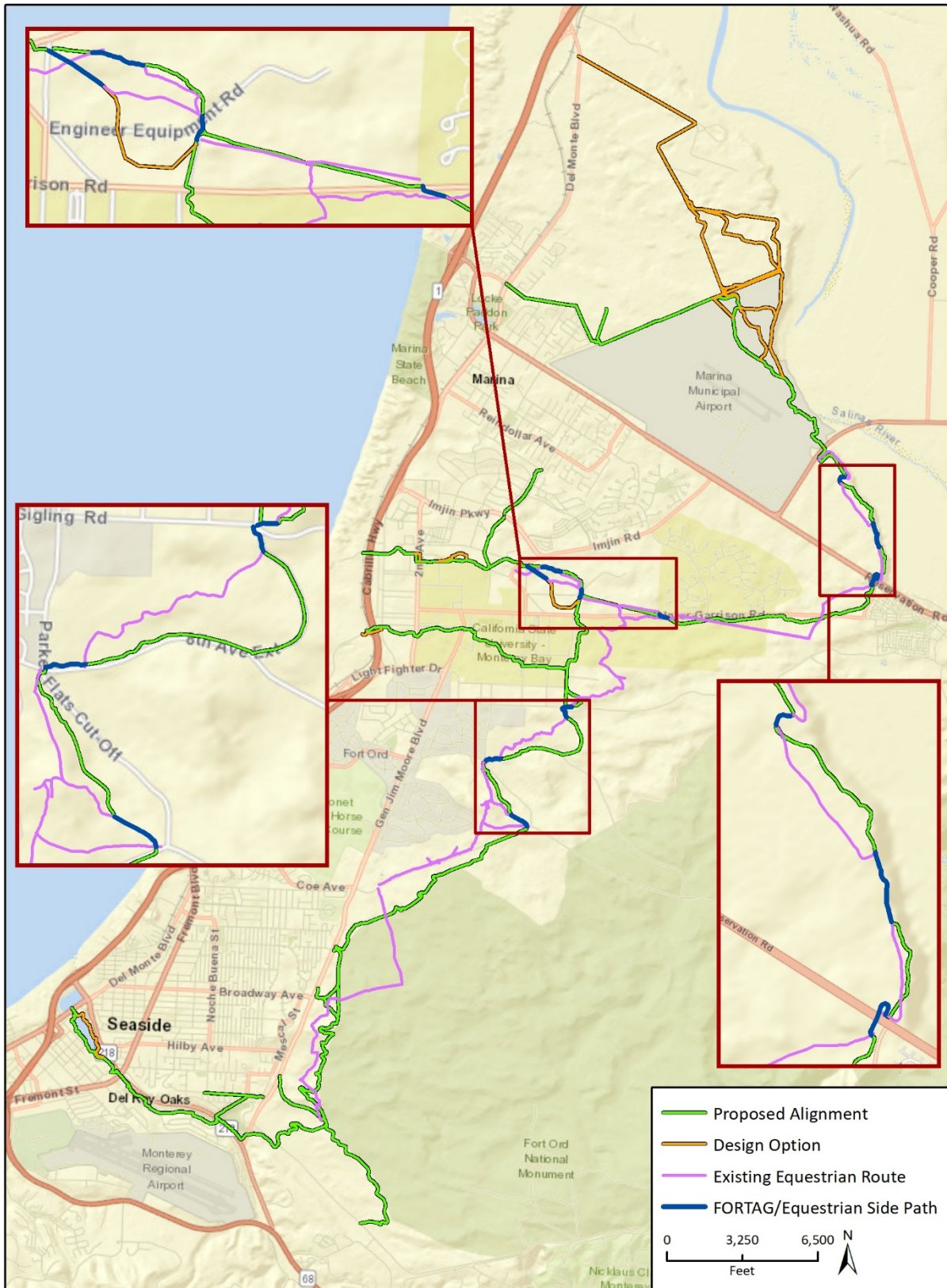
Staging/Parking Areas

No new parking spaces or formal staging areas would be developed. At existing unimproved parking areas that would serve the Trail, improvements may occur in order to improve safety and confine parking to prevent habitat disruption or Trail encroachments. Improvements would be limited to fencing or other barriers between the Trail and parking; no paving or other improvements to the parking areas would be constructed. Trail amenities would be minimal, and designed to blend into the landscape, primarily serving to provide areas where visitors can enjoy views without leaving the Trail. Amenity areas would include trash receptacles and dog waste bags but would not include restrooms or running water.

Signage

Wayfinding signage and interpretive signage would be installed throughout the Trail at junction points, trailheads, viewpoints, and intersections. Signage on adjacent roadways and at trail crossings would comply with the most current version of the California Manual on Uniform Traffic Control Devices. Interpretive signage would be added at key locations related to wildlife and local history. Signage would also be provided at key locations, including near trash receptacles, reminding trail users to pick up after their pets.

Figure 2-12 FORTAG Equestrian Side Path Locations



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Additional data provided by Alta Planning + Design, 2019.

Fig. 2-X Proposed Side Paths

Figure 2-13 Example Cross-Section: FORTAG with No Side Path

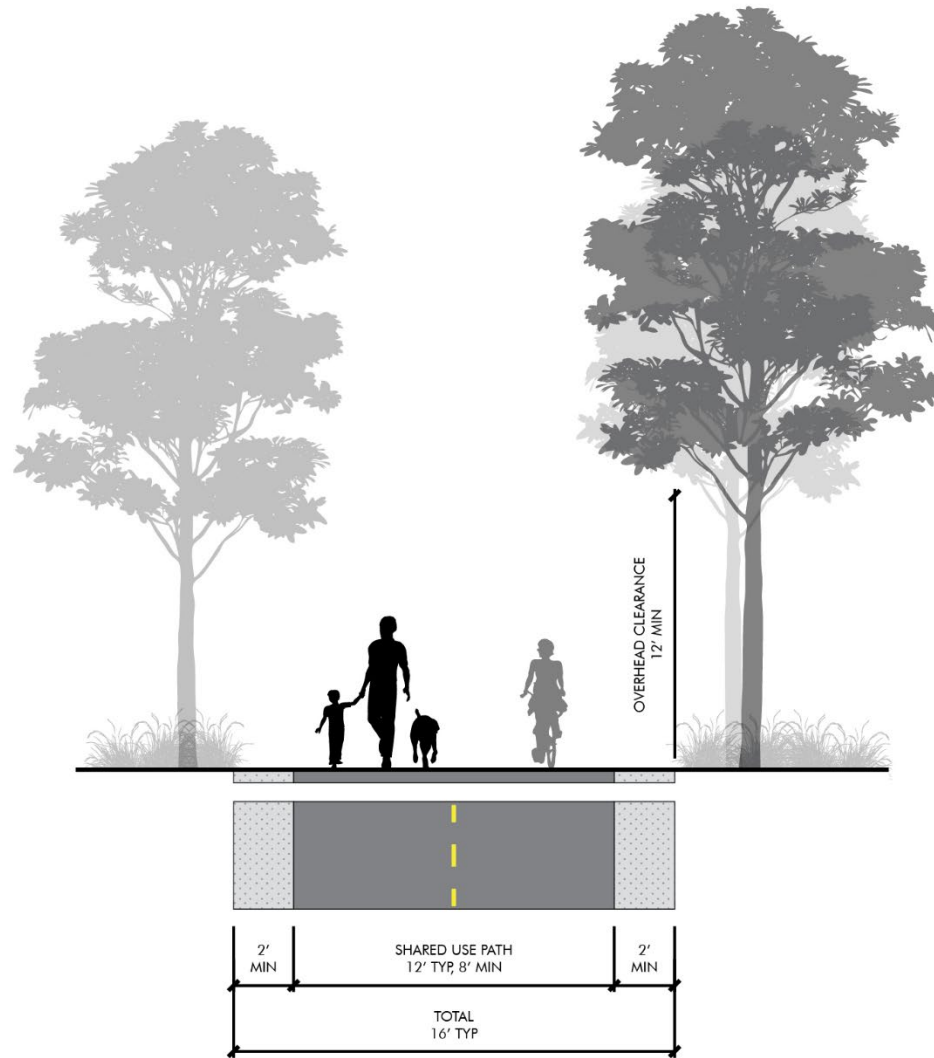


Figure 2-14 Example Cross-Section: FORTAG with Narrow Side Path and Vertical Buffer

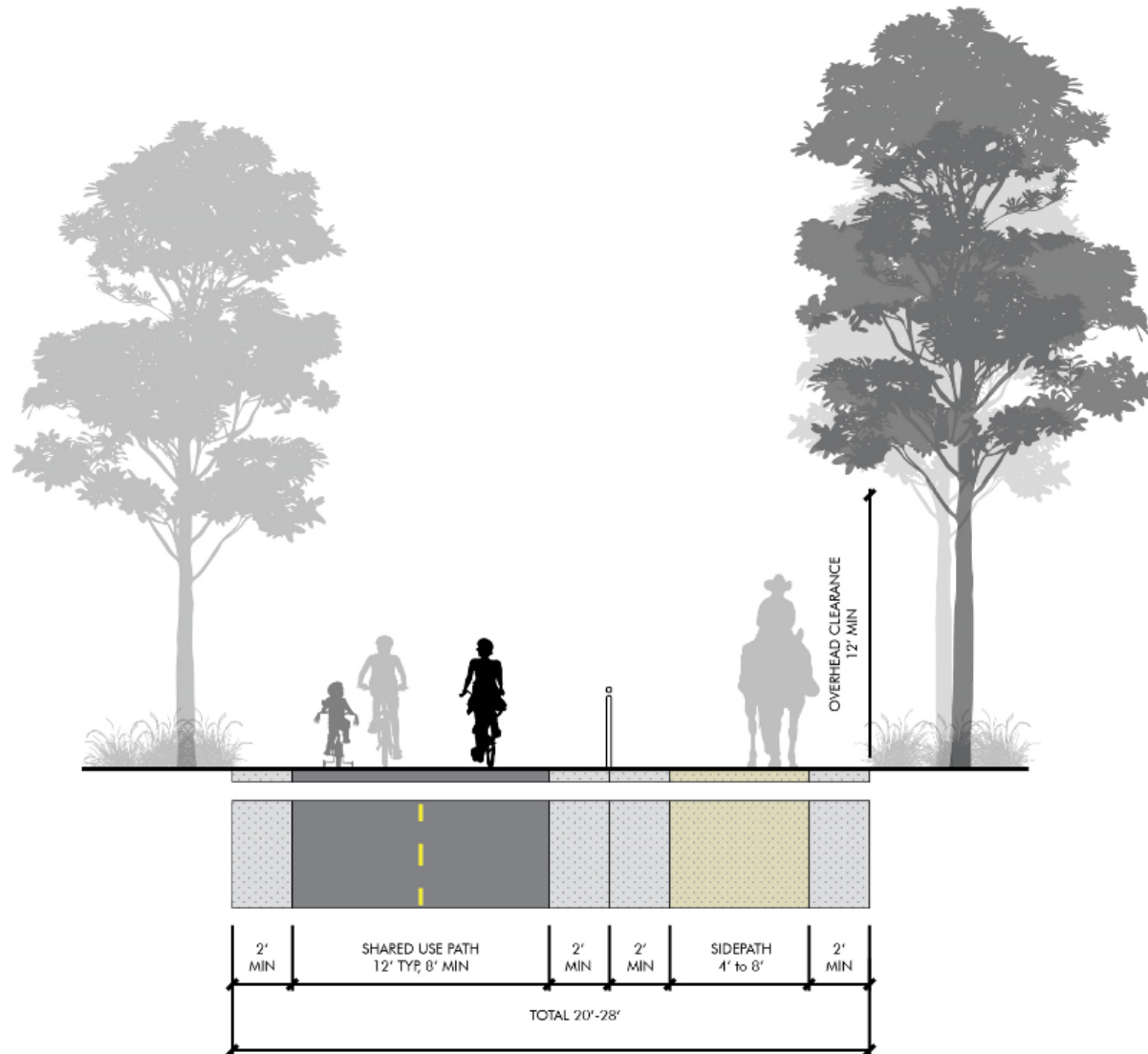
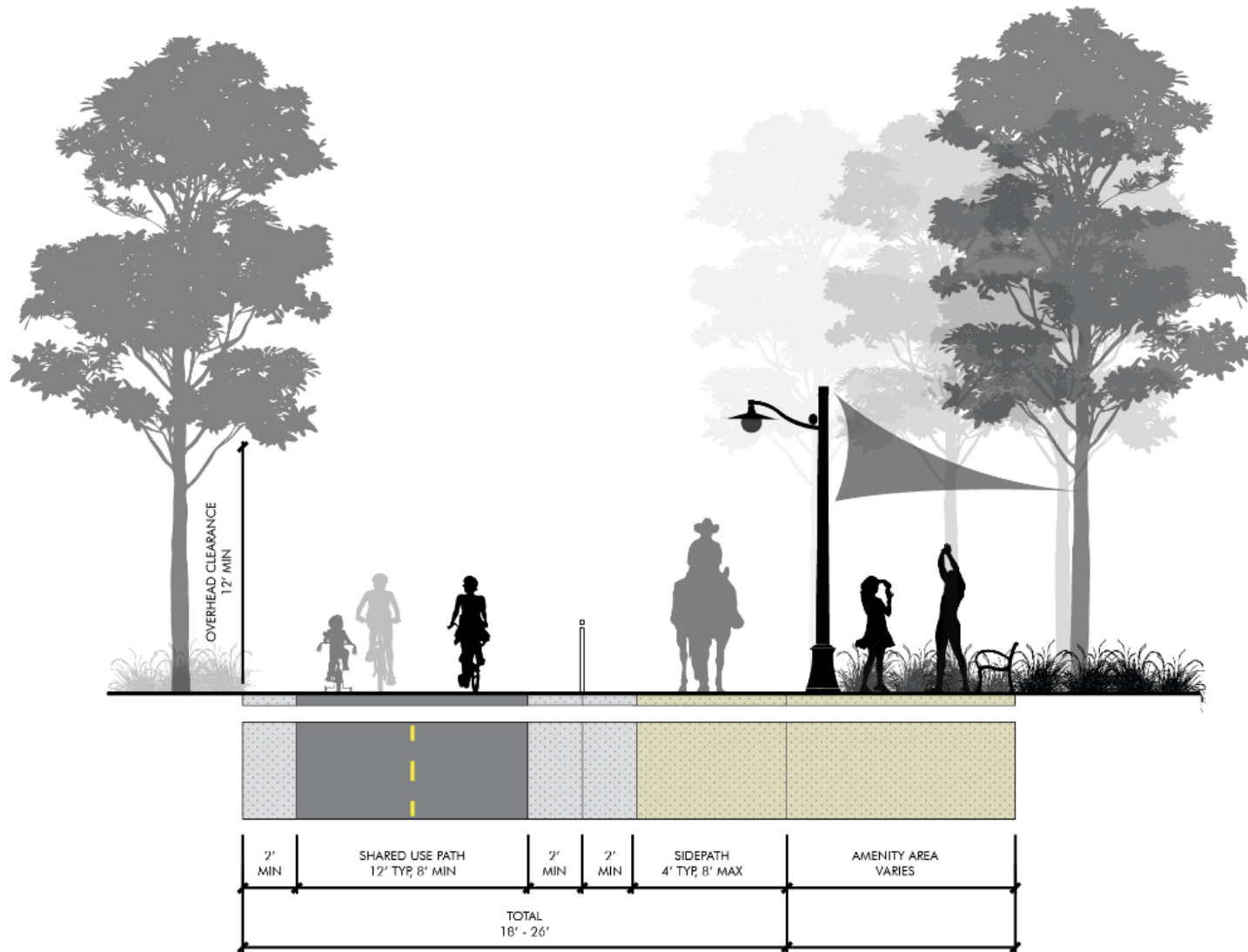


Figure 2-15 Example Cross-Section: FORTAG Through Frog Pond Wetland Preserve



Figure 2-16 Example Cross-Section: FORTAG with Side Path and Amenity Area



Lighting

Lighting would be provided for some sections of FORTAG, depending on the context. Lighting would be added for all new undercrossing and overcrossing and as needed at road crossings and other locations for safety and to aid in crime prevention. There would be minimal or no lighting in open space areas; if required in open space areas for public safety purposes, lighting would be designed to minimize impacts to wildlife and the natural setting. A glow-in-the-dark trail surface may be considered in some locations to avoid the need for night lighting. Where practical, lighting would be solar-powered and adaptive to ambient light conditions and time of day: lights would be brighter at dusk, gradually dimming by midnight, and then brighter again at dawn. This facilitates commuter use but minimizes disturbance late at night. Near the Marina Municipal Airport, any lighting would be bollard-height and shielded to comply with the designated airport safety zones.

FORTAG would not require gas, telecommunication, potable water, or sanitary sewer connections. FORTAG design includes avoidance of major utility conflicts, and therefore relocation of existing utilities is not anticipated.

Drainage

Drainage would occur via sheet flow across the Trail surface to adjacent pervious areas. Where this is infeasible, swales may be used parallel to the Trail, but they would not be engineered stormwater features.

Fencing and Retaining Walls

The majority of FORTAG would not be bounded by fencing. Fencing would be added where necessary to separate Trail users from conflicting vehicle traffic, including near existing parking areas, or from equestrian use. Fencing may also be used to protect habitats with sensitive species, to provide a guardrail for safety, or to channelize bike riders and pedestrians in locations where the Trail is adjacent to private property (including agriculture) and access control is required. Retaining walls would be needed to retain slopes at certain locations. Approximately 2,050 feet of retaining walls would be constructed on the Northern Loop, CSUMB Loop North, National Monument Loop, and Canyon Del Rey/SR 218 segments, as follows:

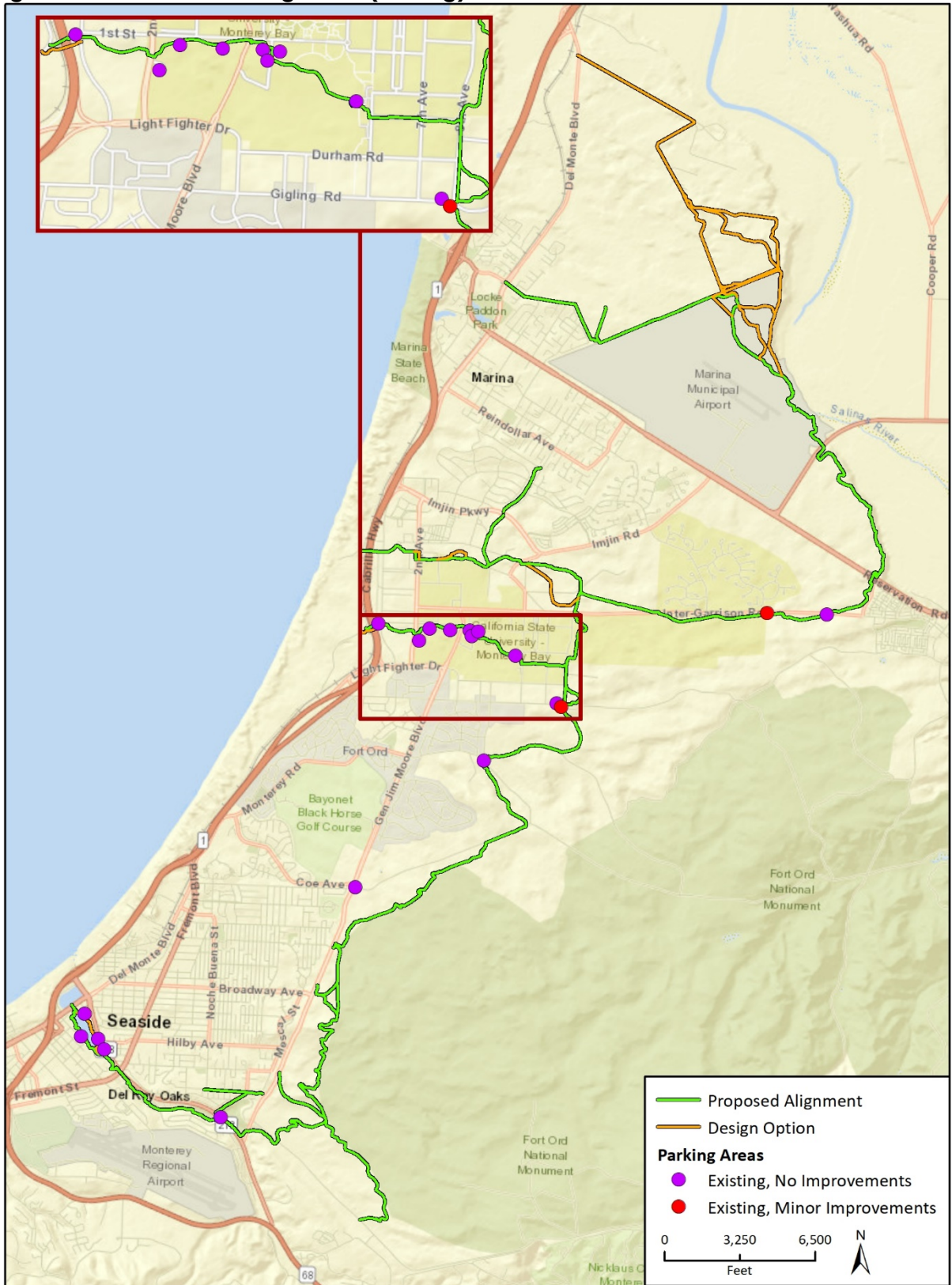
- Approximately 600 feet in the Northern Loop segment north of Blanco Road
- Approximately 160 feet in the CSUMB North segment near 8th Street
- Approximately 1,070 feet in the National Monument Loop segment west of the Veterans Cemetery
- Approximately 230 feet in the Canyon Del Rey/SR 218 segment north of SR 218

Parking

FORTAG does not include construction of any new vehicle parking areas; however, some existing on-street parking may be re-organized to improve safety with new intersections or trail crossings. The proposed alignment is intended to provide direct bicycle and pedestrian access for most Trail users to and from residences, workplaces, and hospitality bases.

Trail users arriving by motor vehicle would utilize existing parking lots and on-street parking to access the Trail. The project includes minor enhancements to unimproved parking areas, as needed to improve circulation safety and to prevent parking that disturbs habitat or encroaches onto the Trail. Existing parking facilities that would serve Trail users are shown in **Figure 2-17** and are listed below.

Figure 2-17 FORTAG Parking Areas (Existing)



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Additional data provided by Alta Planning + Design, 2019.

Fig 2-17 Parking Areas

- Laguna Grande Regional Park in the City of Seaside
- Del Rey Oaks Park in the City of Del Rey Oaks
- CSUMB campus in the cities of Seaside and Marina
- Marina Equestrian Center Park in the City of Marina
- Jerry Smith trailhead, on the south side of Inter-Garrison Road between CSUMB and East Garrison
- 8th Street and Gigling Road trailhead
- SR 218 street shoulder parking at Frog Pond Wetland Preserve
- Inter-Garrison Road street shoulder parking on the Northern Loop segment

2.5 Project Operation and Maintenance

This section describes operation and maintenance of FORTAG.

Because FORTAG would traverse multiple jurisdictions and would be owned, implemented, and operated by various entities, a Master Agreement (MA) between TAMC and each underlying jurisdiction would be entered into that identifies maintenance responsibilities, trail use rules, and other considerations that require coordination between the various agencies and groups involved in FORTAG's development and management. Rules and restrictions for Trail use may vary by jurisdiction. The MA prepared for the development and operation of FORTAG would establish the specific enforceable mitigation measures any applicable rules for each jurisdiction, as agreed upon in conjunction with TAMC through a series of Supplemental Agreements to the MA as each segment is constructed.

2.5.1 Hours and Closures

FORTAG is proposed as a public trail that would be used for active transportation and recreation. Most segments of the Trail would be parallel to or nearby existing roads, and no gates are proposed as part of the project. Therefore, most segments of the Trail would be open 24 hours daily. However, the exact hours of operation could be modified by the jurisdictions in which individual segments occur.

2.5.2 Electric Bicycles

The ADA-accessible Trail is intended for pedestrians and bicyclists, with equestrian use in some segments. In accordance with Assembly Bill (AB) 1096, Class 1 and Class 2 e-bikes are legal on any paved surface that a regular bike is allowed to operate.² Electronic skateboards with a rating limited to 20 miles per hour would be allowed as well. Depending on the volume of users, other speed limits may be imposed and indicated on posted signage, and local jurisdictions would have the authority to prohibit, by ordinance, the operation of Class 1 or Class 2 e-bikes on specified paths or trails.

2.6 Project Construction

This section discusses FORTAG construction activities and the timing of construction.

² As defined in AB 1096, a Class 1 e-bike, or low-speed pedal-assisted electric bicycle, is equipped with a motor that aids only when the rider is pedaling and that stops providing assistance when the bicycle reaches 20 miles per hour (mph). Class 2 e-bikes, or low-speed throttle-assisted electric bicycle, but that cannot provide assistance when the bike reaches 20 mph. A Class 3 e-bike, or speed pedal-assisted electric bicycle, is equipped with a motor that provides assistance only when the rider is pedaling and stops providing assistance when the bicycle reaches 28 mph. Operators of Class 3 e-bikes must be 16 or older and wear a helmet. Class 3 e-bikes are prohibited from Class I multi-use bike paths unless specifically authorized by a local ordinance.

2.6.1 Timing and Duration

A portion of the Canyon del Rey/SR 218 segment is anticipated to be the first phase of FORTAG to be constructed. This portion has been awarded federal funding through the Active Transportation Program (ATP), subject to environmental review, as discussed in **Section 2.7** below and in greater detail in **Section 1.2, Project Background**. Engineering-level design for the first phase of FORTAG is estimated to begin in 2020, with construction (for this phase) occurring in 2021/2022. Additional construction is expected to occur over time and could continue for several years, depending upon funding availability and participation of the underlying jurisdictions. A total project construction schedule has not been finalized and is subject to funding availability and other considerations. Construction assumptions have been made for analysis purposes and are described in **Section 4.3, Air Quality**.

2.6.2 General Methodology

Overall, construction activities for the project would include excavation of material sources, clearing and grubbing, grading, placement of aggregate base and asphalt concrete, revegetation, installation of signs, and installation of lighting and other safety related features necessary to meet current design practice. Fencing would be erected to limit construction impacts to sensitive resources, such as existing trees. Large construction equipment would include trail dozers, skid steers, narrow track loaders, rollers, and vibrating plate compactors. Specialized narrow-width equipment is anticipated to be used in areas where minimization of the width of construction impact is a priority. Hand excavation may be required in limited areas where the Trail may cross within the dripline of oak trees. The project does not include removal of any existing buildings or structures and would avoid modifying or relocating above-ground utilities where feasible. Utility poles adjacent to the Plumas Avenue right-of-way in the City of Del Rey Oaks would not be modified or removed.

Most of the Trail would be composed of a four-inch layer of asphalt concrete over a six-inch aggregate base. An estimated 42,000 tons of asphalt concrete are expected to be used to construct the Trail.

The following best management practices would be implemented during project construction to comply with the Monterey Bay Air Resources District's Rule 402 (Nuisance) and CEQA Guidelines:

- Prohibit all grading activities during periods of high wind (over 15 mph)
- Active construction areas will be watered, as needed and at least twice daily, based on the activity, soil and wind exposure
- Apply chemical soil stabilizers on inactive construction areas (disturbed lands unused for four consecutive days)
- Apply native hydro-seed or non-toxic binders to exposed areas after cut/fill operations
- Maintain at least 2-foot freeboard in haul trucks, and cover all trucks hauling dirt, sand, or other loose materials
- Plant native vegetative ground cover in disturbed areas as soon as possible, in coordination with mitigation planting requirements identified in this EIR for biological resources
- Cover inactive storage piles

In undisturbed areas as much as practical, limit the construction zone to a 20-foot corridor to minimize impacts to habitat and wildlife.

Construction Staging

Construction staging areas would be located on existing pavement and disturbed areas adjacent to trails, as shown in **Figure 2-18**.

Staging areas would include existing parking lots adjacent to the Trail, vacant or abandoned parking lots at CSUMB, and vacant lots on the former Fort Ord. Roadway shoulders would be used for construction staging where lots or cleared areas are not available adjacent to the work site. Construction staging areas would be located at least 50 feet from waterways and would include erosion control Best Management Practices, such as fiber rolls. Dust control measures, such as watering, would be implemented at staging areas during construction to reduce fugitive dust and construction would be limited to daytime hours.

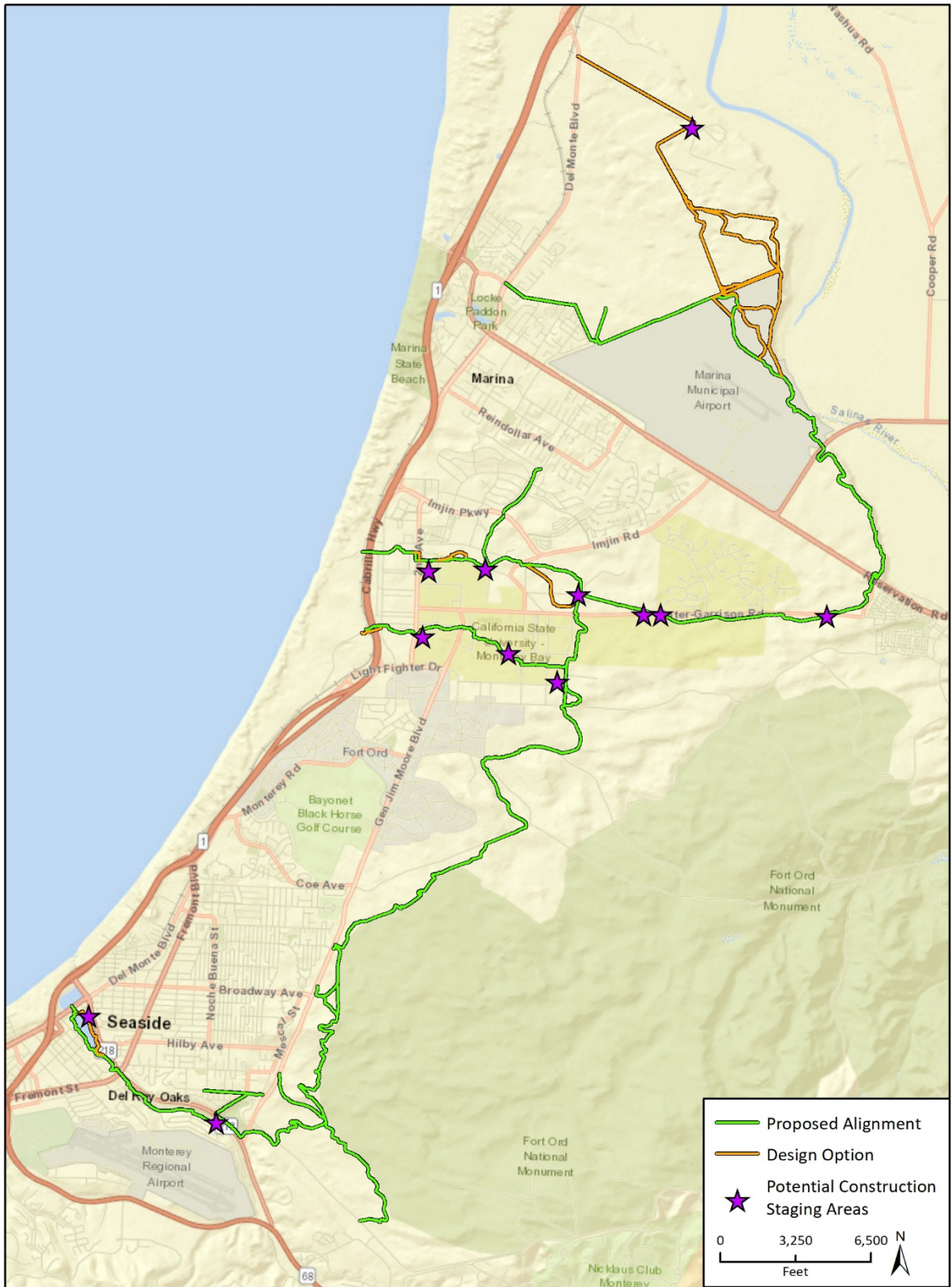
2.7 Required Permits and Approvals

The proposed project would require certification of the EIR by TAMC as lead agency and approval of the MA with participating jurisdictions acting as the responsible agency for specific segments of the project. It is anticipated that the City of Del Rey Oaks will be one of the first jurisdictions to sign the MA and act as a responsible agency. Concurrent or subsequent approvals of the MA by the County of Monterey and the cities of Monterey, Seaside, and Marina would also be required for construction. In addition to the MA, participating jurisdictions would sign Supplemental Agreements with TAMC addressing specific segments as they come forward for construction. Additionally, permits and approvals would be required from the following agencies to implement the proposed project:

- Transportation Agency for Monterey County
- County of Monterey
- City of Marina
- City of Seaside
- City of Monterey
- City of Del Rey Oaks
- CSUMB
- California Coastal Commission
- California Department of Fish and Wildlife
- California Regional Water Quality Control Board
- California Department of Transportation
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service

As described in **Section 1.2, *Project Background***, a portion of the Canyon Del Rey/SR 218 segment has been awarded federal funding through the ATP, subject to environmental review. As the federal implementing agency, Caltrans is responsible for compliance with federal requirements, including the preparation of a separate future environmental document satisfying the National Environmental Policy Act (NEPA).

Figure 2-18 Potential Construction Staging Areas



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 Additional data provided by Alta Planning + Design, 2019.

Fig. 2-13 Construction Staging Areas

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3 Environmental Setting

This section provides a general overview of the environmental setting for the FORTAG project. Detailed descriptions of the environmental setting for each environmental issue area can be found in **Section 4, Environmental Impact Analysis**.

3.1 Regional and Project Site Setting

As shown in **Figure 2-1 in Section 2, Project Description**, the FORTAG project is located in northwestern Monterey County. As shown in **Figure 2-5 in Section 2, Project Description**, the Trail would transverse sections of the cities of Monterey, Del Rey Oaks, Seaside, and Marina, as well as unincorporated Monterey County. Additionally, portions of the project are within or adjacent to areas managed by California State University, Monterey Bay (CSUMB), the Fort Ord Reuse Authority (FORA)¹, the Army, the California Department of Transportation (Caltrans), the University of California Santa Cruz, Pacific Gas & Electric (PG&E), and the Monterey Peninsula Regional Park District. Some portions of the alignment is also within the California Coastal Zone. The Trail would not be located on any State or Federal property.

The Trail would connect to the existing Monterey Bay Coastal Recreation Trail (Coastal Rec Trail), portions of which are under the jurisdiction of California State Parks, and the North Fremont Bicycle and Pedestrian Project in the City of Monterey. The FORTAG connections to the existing Coastal Rec Trail would form continuous trail circuits.

The proposed alignment, when combined with the existing Coastal Rec Trail, would generally form three loops that roughly encircle the City of Marina, the CSUMB campus, and the City of Seaside, respectively.

Additional resource area environmental setting is provided in **Sections 4.1 through 4.17** of this EIR.

3.2 Cumulative Development

3.2.1 Methodology

The term “cumulative impacts” refers to “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (CEQA Guidelines Section 15355).

A cumulative impact can result from the combination of two or more individually significant impacts, or the combination of two or more impacts that are individually less than significant but constitute a significant change in the environment when considered together. To analyze a proposed project’s contribution to cumulative impacts, CEQA requires the lead agency to identify past, present, and probable future projects in the vicinity, summarize their effects, identify the incremental contribution of the proposed project to any significant cumulative impacts occurring in the project region, and recommend mitigation measures as appropriate (*CEQA Guidelines* Section

¹ FORA is scheduled to sunset in 2020. A plan for transition has not been approved as of the date of this draft.

15130[b]). Mitigation measures should focus on any cumulatively considerable incremental contribution from the proposed project or alternative to any significant cumulative effect created by the past, present, and probable future projects, together with the proposed project or alternative (*CEQA Guidelines* Section 15130[a][3]; see also *CEQA Guidelines* Section 15126.2[a][4]).

Section 15130 of the State CEQA Guidelines permits two approaches for identifying cumulative projects to analyze. The first is the “list” approach, based on a list of past, present, and probable future projects that produce related or cumulative impacts. The list may include projects both within and outside the project corridor area. The second is the “projections” approach, based on a summary of projections contained in an adopted plan or related planning document, such as a regional transportation plan, or in an EIR prepared for such a plan. The projections may be supplemented with additional information such as regional modeling. A reasonable combination of the two approaches may also be used.

This EIR uses a combination of the “list” and “projections” approaches.

Table 3-1 presents the list of cumulative projects that are considered in the discussions below for each environmental topic. In addition, TAMC prepared the Canyon Del Rey Boulevard (SR 218) Corridor Study to improve SR 218 from SR 1 to SR 68. The Corridor Study involved gathering data, conducting a traffic forecast analysis, and utilizing public input to identify a set of complete streets, stormwater drainage, active transportation, and environmental preservation improvements to SR 218.

Table 3-1 Cumulative Projects List

Cumulative Project	Description	Project Status
City of Del Rey Oaks		
Del Rey Oaks RV Resort	On a 53.6-acre site located north of Ryan Ranch Business Park, this project would develop 71 RV sites and a 7,670 square feet "great lodge" and a 2,025 square feet "operations building" on 17 acres in the first development phase. Total build out is 210 RV sites and 13,595 square feet of structures.	Approved (pending construction)
Del Rey Oaks/Former Fort Ord Parcels	Approximately 340-acre mixed-use project planning east of General Jim Moore Boulevard along South Boundary Road.	Planning process
South Boundary Road Realignment and Roundabout	Proposed realignment of South Boundary Road and installation of a new roundabout at the intersection with General Jim Moore Boulevard. Project would also include installation of a pedestrian and bicycle path on the south side of the realigned South Boundary Road toward Ryan Ranch Business Park.	Planning process (<i>confirm</i>)
City of Marina		
The Dunes on Monterey Bay	Mixed-use development with 1,237 dwelling units and 7,600 square feet of office space. Approximately 350 units have been built and 887 to be constructed.	Approved (under construction)
Marina Station	Mixed-use development with 1,360 residential dwelling units to include approximately 887 single family lots and 473 multi-family units. Development will include approximately 60,000 square feet of retail space, 144,000 square feet of office space, and 652,000 square feet of business park/industrial uses.	Approved (pending construction)

Cumulative Project	Description	Project Status
Sea Haven (formerly Marina Heights)	Development community with residences, parks, and trails. Community would consist of three neighborhoods for a total of 1,050 residential units. Approximately 295 units have been developed with the remaining 755 planned for construction.	Approved (under construction)
Cypress Knolls Senior Residential	Senior residential community with active-adult housing, care services, senior community center, and supportive amenities and services on 188 acres.	Approved (pending construction)
Downtown Vitalization Specific Plan	Redevelopment plan for Marina's 225-acre downtown area comprising mixed-use commercial, residential, educational, and civic uses. At full buildout, the plan would result in a net increase of 2,440 residential dwelling units, 718,000 square feet of multiple use, 70,000 square feet of office space, and 50,000 square feet of civic facilities, and a net decrease of 161,000 square feet of retail/service uses, 27,000 square feet of visitor-serving uses, and 270,000 square feet of industrial uses.	Undergoing environmental review
Mosaic Student Housing	Demolition of two existing dwellings and construction of multi-family apartment (12 units).	Approved
Filighera Apartment Complex	Demolition of an existing single-family dwelling and construction of multi-family apartment (10 units).	Approved (permits pending)
Veterans Transition Center Housing	Attached multi-family transitional housing (71 units).	Approved
Shores at Marina	Multi-family apartment (58 units).	Approved
Seacrest Apartments	Multi-family apartment (10 units).	Approved
Airport Business Park	A 150-acre site with 175,000 square feet of industrial development.	Undergoing environmental review
City of Seaside		
Campus Town Specific Plan	Approximately 122 acre community with 1,485 housing units, 250 hotel rooms, 75 youth hostel beds, 150,000 square feet of retail, dining, and entertainment, and 50,000 square feet of office, market space, and light industrial uses.	Undergoing environmental review
The Projects at Main Gate	This project is mixed-use development including retail and entertainment. The development site is approximately 60 acres of vacant coastal land at the Main Gate of the former Fort Ord Army Base, adjacent to CSUMB campus. The proposed mixed-use project will include retail, entertainment, residential and hotel.	Approved (pending construction)
Nurses Barracks	Located on the former Fort Ord on Park Flats Cutoff Road, on a 70.4 acre site, where former Nurses Barracks buildings are located. The project will redevelop this site to create 40 apartments.	Application pending
Central Coast Veterans Cemetery	Development of a cemetery to provide 106,476 gravesites with 81,040 columbaria and 25,436 casket burial sites to meet the needs of veterans for the following 100 years.	Approved (partially constructed)

Transportation Agency for Monterey County
Fort Ord Regional Trail and Greenway Project

Cumulative Project	Description	Project Status
Seaside East	Approximately 580 acres of land east of General Jim Moore Boulevard zoned for residential, commercial, and recreational uses.	Planning process
Gigling Road Widening	Widening Gigling Road to a four-lane arterial between General Jim Moore Boulevard and Eastside Road.	Approved (pending construction)
Terrace and Broadway	This project would develop 105 units of mixed use multi family, townhomes and retail on 2.5 acres.	Application expected
The Seaside Resort	Hotel project with 275 rooms, 175 timeshare units, and 125 custom residential fronting the Bayonet and Black Horse golf courses.	Approved (under construction)
City of Monterey		
Monterey Motorsports Vehicle Storage	88-unit commercial condominium vehicle storage facility.	Under construction
FORA Business Park	100-acre business park north and south of South Boundary Road.	Planning process
North Fremont Bicycle and Pedestrian Project	Bicycle and pedestrian improvements on North Fremont Street between Casa Verde Way and Casanova Avenue in Monterey.	Completed
Monterey County		
Fort Dunes State Park Campground	Construction and operation of a campground facility and associated infrastructure within Fort Ord Dunes State Park, including 45 RV sites and two host sites with electrical and water hookups, 10 hike/bike sites, and 43 tent sites; parking for 40 vehicles; restrooms with showers; a multi-purpose building; an outdoor campfire center; interpretation/ viewing areas; renovated bunkers; an entrance station near the 1st Street underpass; modular structures; storage yard and maintenance shop; improved beach access/trails; one plumbed restroom with outdoor shower for beach use; a 200-foot wildlife/habitat corridor; internal campground trail network, trail improvements, and roadway improvements; and off-site utilities.	Approved (pending construction)
East Garrison	Entitled 1,470 unit planned community of 244 acres will include single family homes, apartments, townhomes, recreational opportunities, visitor serving area, and approximately 40,000 square feet of retail.	Approved (under construction)
Northeast-Southwest Arterial Connector Project	Construction of approximately 4.5 miles of roadway through the former Fort Ord extending Eucalyptus Road, Parker Flats Road, and Gigling Road, and then northeast to Watkins Gate Road.	Planning process
Sand City		
The Collection at Monterey Bay	342-room coastal resort on the 26.46-acre site that may be constructed in two phases. Phase I is a 139 room hotel on a 7.9-acre site. Phase II is a coastal resort on a 16.25 acre site consisting of a 203 visitor rooms, a restaurant with banquet facilities, a health/wellness spa, parking, and other ancillary and related improvements, and public parking improvements on a 2.31 acre site.	Approved (pending construction)

Cumulative Project	Description	Project Status
Catalina Lofts	18,636 square foot mixed-use project on a 15,000 square foot vacant property with 8 residential units and 7 commercial units.	Approved land entitlement (awaiting issuance of building permit)
South of Tioga	Mixed-use project on 10.64 acre site replacing industrial uses with 356 residential units and a 216 room hotel, and a restaurant.	Demolition approved, planning process
Stepanek Mixed-Use Project	8,000 square foot, 2-story mixed-use development on a 5,625 square foot parcel replacing existing commercial building with 1 residential unit and 1 commercial unit.	Approved land entitlement (awaiting plan check review)
Dayton Residential Project	Two new single-family homes (one with an accessory unit) on a property previously used as a fenced commercial yard.	Approved, (under construction)
San Juan Pool's Commercial Project	7,000 square foot, 1-story, 2-unit metal frame commercial warehouse on an approximately 10,000 square foot parcel previously used as a commercial storage yard.	Approved (under construction)

In addition to the list of cumulative projects, the projections approach is used for some issue areas where appropriate. For this method, the analysis considers buildout of the following plans:

- 2010 Monterey County General Plan
- 2000 City of Marina General Plan
- 1982 City of Marina Local Coastal Program
- 2004 City of Seaside General Plan
- 2040 City of General Plan (*Draft*)
- 2016 City of Monterey General Plan
- 1997 City of Del Rey Oaks General Plan
- 2007 California State University, Monterey Bay Master Plan
- 2017 California State University, Monterey Bay Comprehensive Master Plan (*Draft*)
- Greater Monterey Peninsula Area Plan
- Fort Ord Master Plan

2010 Monterey County General Plan

The 2010 Monterey County General Plan includes policies that address existing and future land use development for the unincorporated communities of the County. In the Land Use Element, General Plan Land Use Designations define the physical uses and intensity of development for each land use designation.

City of Marina

2000 City of Marina General Plan

The City of Marina's 2000 General Plan (amended 2010) serves as a framework for guiding daily and long-term planning and development decisions by the City of Marina in a manner consistent with the City's goals (City of Marina 2000).

1982 City of Marina Local Coastal Program

The City of Marina has a Local Coastal Program (LCP), which was certified in 1982 by the California Coastal Commission and amended in 2013. The City's coastal zone includes SR 1 and all lands west of SR 1 within the incorporated City limits; lands west of Del Monte Boulevard between Reservation Road and the City's southern boundary; and a narrow strip of land about two miles long west of SR 1 within the former Fort Ord boundary, which includes the Monterey Bay Coastal Recreation Trail and the Southern Pacific Railroad tracks.

City of Seaside

2004 City of Seaside General Plan

The City of Seaside's 2004 General Plan serves as the blueprint for future growth and development, aimed at creating a communities with a variety of housing, recreational, and economic opportunities.

2040 City of Seaside General Plan (Draft)

The City of Seaside is in the process of completing a General Plan update. The public draft, titled *Draft Seaside 2040*, was released in November 2017 and the General Plan update EIR is underway. The Seaside 2040 plan aims to refine the land use and community character vision for potential growth areas of the City and ensuring that the General Plan is consistent with the Fort Ord Base Reuse Plan, taking into consideration the shifts in the City's economic and housing markets, land use, transportation system, and infrastructure demands since the 2004 General Plan.

City of Monterey

2016 City of Monterey General Plan

The City of Monterey's General Plan contains goals and policies which serve to guide future urban design decisions for the City by preserving and enhancing Monterey's physical setting and image as a town (City of Monterey 2016).

City of Del Rey Oaks

1997 City of Del Rey Oaks General Plan

The City of Del Rey Oaks General Plan provides a framework for development and growth in the city. Policies relevant to the FORTAG project include policies to work with adjoining cities, special districts, and the County to minimize environmental impacts and preserve native vegetation along SR 218.

California State University Monterey Bay

2007 CSUMB Master Plan

CSUMB's 2007 Master Plan provides an implementable, long-term growth strategy for the continued transformation of former Fort Ord areas for campus use. The 2007 Master Plan establishes existing conditions of the campus and provides a facilities plan focused around the maintenance of existing buildings and infrastructure, existing and future academic needs, and capacity gap analysis based on opportunities and constraints. The 2007 Master Plan identifies the need for connections to off-campus destinations, and specifically states the following action: "locate efficient transit, vehicular, and non-motorized transit and pedestrian routes, which connect to Marina and Seaside destinations" (CSUMB 2007).

2017 CSUMB Comprehensive Master Plan (Draft)

CSUMB is in the process of updating its 2007 Master Plan, which endeavors to build on earlier planning efforts that facilitated the transition of the former Fort Ord Army Base to the campus at present day. The 2017 Draft Master Plan acknowledges the FORTAG project in relation to the campus, and specifies that "the plan also encourages a clear and inviting connection to the regional existing and proposed FORTAG trail network."

Cumulative Impact Analysis

The cumulative impact analysis for each environmental or resource topic considers the effects of cumulative projects located in an appropriate geographic area, which varies by resource topic. For example, the appropriate geographic area for aesthetic impacts is the viewshed from the project corridor, which is the scope of human eyesight in the vicinity of the corridor. The appropriate geographic area for air quality impacts is the North Central Coast Air Basin, which covers an area of more than 5,100 square miles.

For each resource topic, cumulative impacts were determined in the following manner.

1. Determine whether there is a significant cumulative impact under future conditions with the project; if yes, then
2. Determine if the project would or would not make a cumulatively considerable (i.e., significant) contribution to the identified significant cumulative impact.

The cumulative impacts for all the resource topics are discussed at the end of **Sections 4.1** through **4.17**.

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4 Environmental Impact Analysis

This section discusses the possible environmental effects of the Fort Ord Regional Trail and Greenway (FORTAG) Project for the specific issue areas identified through the scoping process as having the potential to experience significant effects. “Significant effect” is defined by the *CEQA Guidelines* Section 15382 as:

“...a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant.”

The assessment of each issue area begins with a discussion of the environmental setting related to the issue, followed by the impact analysis. In the impact analysis, the first subsection identifies the methodologies used and the “significance thresholds,” which are those criteria adopted by the County and other agencies, universally recognized, or developed specifically for this analysis to determine whether potential effects are significant. The next subsection describes each impact of the proposed project, mitigation measures for significant impacts, and the level of significance after mitigation. Each effect under consideration for an issue area is separately listed in bold text with the discussion of the effect and its significance. Each bolded impact statement also contains a statement of the significance determination for the environmental impact as follows:

- **Significant and Unavoidable.** An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per Section 15093 of the *CEQA Guidelines*.
- **Less than Significant with Mitigation Incorporated.** An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under Section 15091 of the *CEQA Guidelines*.
- **Less than Significant.** An impact that may be adverse, but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact.** The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Following each environmental impact discussion is a list of mitigation measures (if required) and the residual effects or level of significance remaining after implementation of the measure(s). The implementing entity referenced in the EIR mitigation measure refers to the agency that would execute the mitigation measure, which may be TAMC or any of the applicable jurisdictions depending on the agency implementing or operating the Trail segment. The decision to adopt and incorporate a mitigation measure will be decided by the decision-makers. Consequently, if a recommended mitigation measure is not adopted, impacts associated with such measures would remain significant and unavoidable. In cases where the mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed and evaluated as a

secondary impact. The impact analysis concludes with a discussion of cumulative effects, which evaluates FORTAG's impacts in conjunction with other past, present, and reasonably foreseeable probable future projects/growth.

Section 15065 of the *CEQA Guidelines* also requires the following specific issues be addressed as part of the environmental review for the project:

- The potential for the project to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory;
- Project impacts that are individually limited, but cumulatively considerable;¹and
- Environmental effects of the project which will cause substantial adverse effects on human beings, either directly or indirectly.

Section 4.4, *Biological Resources*, describes the potential effects of the project on plant and animal species populations, habitats, communities, and migratory patterns. **Section 4.5, *Cultural Resources***, describes FORTAG's potential effects on important historical and prehistorical cultural resources, and **Section 4.15, *Tribal Cultural Resources***, describes FORTAG's potential effects on tribal cultural resources in project vicinity. FORTAG would not result in significant and unavoidable impacts to biological, cultural, or tribal cultural resources. Potential adverse environmental effects to human beings are discussed in **Section 4.3, *Air Quality***, **Section 4.9, *Hazards and Hazardous Materials***, **Section 4.11, *Land Use and Planning***, **Section 4.12, *Noise***, **Section 4.14, *Transportation***, and **Section 4.18, *Less than Significant Effects***. Each environmental analysis section of this EIR concludes with a discussion of the project's contribution to cumulative effects.

Refer to the **Executive Summary** of this EIR, which summarizes all impacts and mitigation measures that apply to FORTAG.

¹ Cumulatively considerable means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

4.1 Aesthetics

This section addresses potential impacts to aesthetics and visual resources on the project alignment and its surroundings, including impacts affecting visual character and quality, resulting from implementation of the proposed FORTAG project. A visual resource indicates the “definable appearance of a landscape unit as described by its visual elements: landform, water, vegetation, and structures” (US Department of Agriculture [USDA] 1978). This analysis is based on a review of existing resources, technical data, and applicable laws, regulations, and guidelines.

4.1.1 Concepts, Terminology

As addressed in CEQA and NEPA analysis, aesthetics refers to visual concerns. Aesthetics or visual resources analysis is a process to assess the visible change and anticipated viewer response to that change. The Federal Highway Administration (FHWA), Bureau of Land Management (BLM), and U.S. Forest Service (USFS) have developed methodologies for conducting visual analysis that are used across the industry (FHWA 2015, BLM 1984, USFS 1996). These methods have been synthesized and used for this analysis.

While the conclusions of these assessments may seem entirely subjective, value is measured based on generally accepted measures of quality, viewer sensitivity, and viewer response, supported by consistent levels of agreement in research on visual quality evaluation (BLM 1984, FHWA 2015). Modifications in a landscape that repeat basic elements found in that landscape are said to be in harmony with their surroundings; changes that do not harmonize often look out of place and can be found to form an unpleasant contrast when their effects are not evaluated adequately. An aesthetics impacts assessment uses data from three steps, as follows:

- Identify visual features or resources in the landscape from key viewpoints (KVP)
- Assess the character and quality of those resources relative to the overall regional visual character
- Evaluate potential significance of features in the landscape to people who view them, and determine their potential sensitivity to the changes proposed by the project

Scenic quality can be described best as the overall impression a viewer retains after driving through, walking through, or flying over an area (BLM 1984). Viewer response is a function of the number of viewers, number of views seen, distance of the viewers from the KVP, and the viewing duration. Viewer sensitivity reflects the extent of public concern for a particular viewshed. A brief description of these terms and criteria follows.

Viewshed

A viewshed is an area of the landscape visible from a particular location or series of points (e.g., an overlook or a trail, respectively) (FHWA 2015). A viewshed may be divided into viewing distances called foreground, middle ground, and background. Usually, the closer a resource is to the viewer, the more dominant it appears visually, and thus it has greater importance to the viewer than something farther away. A common set of criteria identifies the foreground as 0.25 to 0.5 mile from the viewer; the middle ground is three to five miles away; and the background extends away to the horizon.

Visual Character

Natural and human-built landscape features contribute to the visual character of an area or view. Features include geology, water features, plants, wildlife, trails and parks, and architecture and transportation elements (e.g., bridges or city skylines). The way visual character is perceived can vary based on the season, the time of day, the light, and other elements that influence what is visible in a landscape. The basic components used to describe visual character are form, line, color, and texture of landscape features (USFS 1996, FHWA 2015).

Visual Quality

Visual quality is a term that indicates the uniqueness or desirability of a visual resource, within a frame of reference that accounts for the uniqueness and “apparent concern for appearance” by concerned viewers (e.g., residents, visitors, jurisdictions) (USDA 1978). A well-established approach to visual analysis is used to evaluate visual quality, using the concepts of vividness, intactness, and unity (FHWA 2015).

- Vividness describes the memorability of landscape components as they combine in striking patterns.
- Intactness refers to the visual integrity of the natural and human-built.
- Unity indicates the visual coherence and compositional harmony of the landscape as a whole.

Visual Exposure and Sensitivity

Viewer sensitivity is determined based on the visibility of resources in the landscape, the proximity of viewers to the visual resource, the height from which viewers see the resource, and the types of viewers with their associated expectations. Visual sensitivity also depends on the number and type of viewers, along with the frequency and duration of views experienced by these viewers.

Once an adequate description of the visual resource and its quality is developed, including the number and types of views for common uses (e.g., recreational, agriculture), an evaluation can be made as to the impact of the project upon the aesthetic and visual resources in the landscape.

4.1.2 Existing Conditions

This section provides a regional overview of the FORTAG project corridor and describes the existing visual character and quality of the proposed FORTAG alignment and surrounding area.

Visual Character

The project corridor is a 28 mile Trail that traverses a variety of landscape types (see *Landscape Units*, below) that include the coastal area, agricultural lands, open space, and developed areas with a mix of uses that include residential, commercial, institutional, and industrial. Because the Trail would occur in this wide mix of landscapes across the entire corridor, landscape units have been identified and are described below. The landscape unit reflect a visually homogenous area, such as the coastal dunes in the cities of Marina and Seaside west of State Route (SR) 1, and can be large or small, depending on how the landscape divides into analytically manageable pieces of “real estate” (California Department of Transportation [Caltrans] 2015). Using landscape units to provide representative descriptions limits redundancy while still giving a robust analysis of the entire project alignment.

Overall, the visual character varies from high to low, depending on the use. The project corridor features a mix of residential, commercial, and institutional/industrial development framed by the ocean on the west, and either open spaces that feature rolling hills and woodlands or similar open spaces that feature abandoned military buildings from the former Fort Ord on the east. Many of these facilities have been vandalized or are largely destroyed by the effects of time and disuse, but redevelopment of this area is under the jurisdiction of the Fort Ord Reuse Authority (FORA), and includes future development to serve the California State University Monterey Bay (CSUMB) community and the rest of the cities of Seaside and Marina. Existing newer development is unified and somewhat vivid, with consistent architectural styles across cities, for example, along Inter-Garrison Road and General Jim Moore Boulevard. Other areas feature older residential development consistent with coastal communities built into hillsides and steeper sloping streets (in the City of Del Rey Oaks, for example). Certain vantage points offer longer views toward the cities, ocean, and agricultural fields, but these are limited by the quick changes in roadway configurations (e.g., curves, hills).

In general, the project corridor visual character is formed by a mix of older and newer residential neighborhoods; the CSUMB institutional use that repurposes old structures from the former Fort Ord and includes newer buildings in the campus core; the adjacent, abandoned structures on the former Fort Ord with some areas of densely overgrown open space; commercial uses that feature big box or chain stores in large shopping centers with vast parking lots that are visible from SR 1; and other expanses of open space that are part of Ryan Ranch, jurisdictional park systems, and FORA. There is limited unity to the visual character throughout the corridor as some areas feature established residential and commercial corridors, others comprise mostly new development, and still others await implementation of proposed revitalization projects. Established neighborhoods have a less unified character than the newer residential developments, and the commercial uses, both older and newer, vary in visual character and quality as well. This lack of visual coherence within or adjacent to the urbanized portions of the corridor contributes to the medium quality of the project corridor, as a whole, even though the area features the natural beauty described above. Ongoing revitalization efforts in the cities and on FORA lands may change these conditions over time, but currently, the visual character lacks vividness, intactness, and unity throughout.

Landscape Units

Four types of landscape units occur in the project corridor: mixed development near the coast, mixed development near agricultural lands, mixed development near open space lands, and mixed urban/suburban development areas. A general description of each type follows. Within the landscape units, exemplary or KVPs are identified to examine where sensitive viewers may experience impacts from public areas.

A landscape unit is visually homogenous, with only one viewshed and one landscape type (Caltrans 2015). Many of the project segments contain a mix of landscape units as FORTAG traverses inland from the coast; thus, multiple descriptions apply to each segment, as follows:

- Coastal Landscape Unit
- Agricultural Landscape Unit
- Inland Open Space Landscape Unit
- Urban/Suburban Landscape Unit

Coastal Landscape Unit

The Coastal Landscape Unit occurs where the Trail is closest to the ocean, at the commencement of the western-most portions of each segment. The extent of the Coastal Landscape Unit occurs at the following points:

- Northern Marina segment from Beach Road where it intersects with the Coastal Rec Trail to its terminus at Crescent Avenue
- Northern Marina segment design option along Charles Benson Road to where it becomes the access road to the M1W Regional Treatment Plan in the City of Marina
- CSUMB North segment on 9th Street from where it intersects the Coastal Rec Trail to 2nd Avenue
- CSUMB South segment on 1st Street from where it intersects the Coastal Rec Trail to 2nd Avenue
- Canyon Del Rey/SR 218 segment from its intersection with the Coastal Rec Trail near Roberts Lake to the intersection of Canyon del Rey Boulevard and Fremont Boulevard¹

The Coastal Landscape Unit is located within one mile of the ocean. It features a mix of residential, commercial, institutional, and industrial development, depending on the exact location of the KVP (see discussion below). Proximity to the ocean regulates the climate, with a cool and foggy summers, and mild winters (Western Regional Climate Center 2016). The soils are sandy dunes with habitat under restoration in many areas, where invasive species are being removed and replaced with native plants. No prominent rock formations occur in the project corridor for this landscape unit. The views from public roadways, such as SR 1 or SR 218, of the sweeping coastline of Monterey Bay and of the ocean itself are intermittent; nevertheless, they are one of the more important visual aspects for the entire area. Because of the limited rise in elevation moving inland, views from public streets such as Reservation Road or Imjin Parkway are limited the farther away the viewer is from the coast. Vegetation height, massing, and type vary, depending on the type of development closest to the coastline. In some areas, the dunes feature a mix of low-lying ice plant and native vegetation. In other areas, such as near CSUMB in the City of Seaside, trees grow close to SR 1, effectively blocking views from the highway toward the University (see **Section 4.4, Biological Resources**, for more detailed descriptions of biota in this and all landscape units). The Coastal Landscape Unit features a mix of uses, including residential, commercial, industrial, and institutional. Close to the coast, there is little area that is undisturbed by human intervention, even in undeveloped or preserved areas that have existing trails and are maintained by groups or jurisdictions. Between SR 1 and agricultural lands east of the project corridor, marshlands create intermittent, undeveloped areas. The proximity to the ocean is the defining visual attribute, and while public views are intermittently interrupted by development or roadway shapes, it remains the most important natural aesthetic feature in the area.

Agricultural Landscape Unit

The Agricultural Landscape Unit describes the areas north of the City of Marina, to the natural boundary formed by the Salinas River. The agricultural lands are interspersed with open space marshlands and bordered by single- and multi-family residential development south of Beach Road. This landscape unit features gently rolling topography with elevations ranging from 15 to 520 feet. The line of site from the streets in the residential areas is limited, therefore, as a viewer looks toward the cultivated land. The weather is slightly warmer and sunnier moving east, away from the

¹ This includes the design option on the northern side of Laguna Del Rey.

ocean, but is still characterized by the mild, Mediterranean climate. Northeast of the Northern Marina segment design option, the M1W Regional Treatment Plan forms an industrial component in the landscape that is not visible from SR 1 or from any major, public roadway. Aside from this industrial feature, in this project segment agricultural lands remain in cultivation and form a varicolored plane between SR 1 and the distant hillsides. Throughout Monterey County and adjacent counties, agriculture is a substantial feature and forms a seasonal visual resource that elevates the quality of the visual character in the area, despite consistent visibility of human-made, industrial elements that are a part of commercial agricultural production.

Urban/Suburban Landscape Unit

The Urban/Suburban Landscape Unit occurs in the City of Marina from SR 1 to De Forest Road and includes the residential and commercial developments that occur along Beach Road, Estrella Del Mar Way and Quebrada Del Mar Road. It continues from southwestern and central Marina to the City of Seaside, and encompasses the area roughly from SR 1 and Imjin Parkway to General Jim Moore Boulevard, to Normandy Road and Monterey Road. The CSUMB campus is within this landscape unit and thus the unit includes a mix of industrial, commercial, residential, and institutional uses. The Coastal Landscape Unit transitions to Urban/Suburban Landscape Unit at about 2nd Avenue, although the streets are not organized on a grid through the cities, and therefore the boundaries between the landscape units are rough.

Adjacent to the other landscape units described here, the Urban/Suburban Landscape Unit is developed somewhat densely, with single- and multi-family residential areas, commercial and industrial uses, and parks. In areas fitting this landscape unit in the cities of Marina and Seaside, residential development consists largely of single-family homes, with some multi-family developments adjacent to commercial areas. In the City of Seaside, the CSUMB campus is included in this landscape unit as the project corridor traverses the campus in one area (Butler Avenue) and borders the campus in other areas such that the landscape is generally coherent with other areas in the same unit. In particular, former Fort Ord facilities are situated beside industrial reuses (e.g., the campus mail facility), and small parks that form open spaces between the crumbling structures and the ones currently in use. In the City of Del Rey Oaks, as with most of the areas east of the coastline, mature trees line the streets and create a sense of forestation beside the developed areas. Smaller parks form open spaces within this landscape unit and are differentiated from the Inland Open Space Landscape Unit described below.

Inland Open Space Landscape Unit

Open space to the east of the project corridor is characterized by rolling topography and mixed vegetation. A wide range of oak and riparian woodland, chaparral and scrub, and ruderal vegetation are present throughout, depending on the exact conditions (water, development, etc.). On FORA lands, open space is sometimes interrupted by the remnants of former base development, either in use, abandoned and decaying, or adapted for student housing and other uses near the University. In the Ryan Ranch Business Park at the southernmost inland area of the project corridor in the City of Monterey, the Trail would occur between General Jim Moore Boulevard and South Boundary Road, in an area that falls under the Ryan Ranch Area Plan (City of Monterey 1987). This landscape unit is characterized by rolling, wooded, and grass rise and mesa, with a predominance of oak trees. Wildlife varies based on habitat type with a variety of reptiles, birds, and small mammals observed during the site visit for this analysis. For more detail on the vegetation and wildlife, see **Section 4.4**, Biological Resources.

Key Viewpoints

Within the various landscape units, KVPs are identified and discussed under the project impact analysis as representative of the types of views throughout the project corridor; they include an assessment of viewer sensitivity. These are used as representative points from which the analysis of visual effects is made for the overall landscape units.

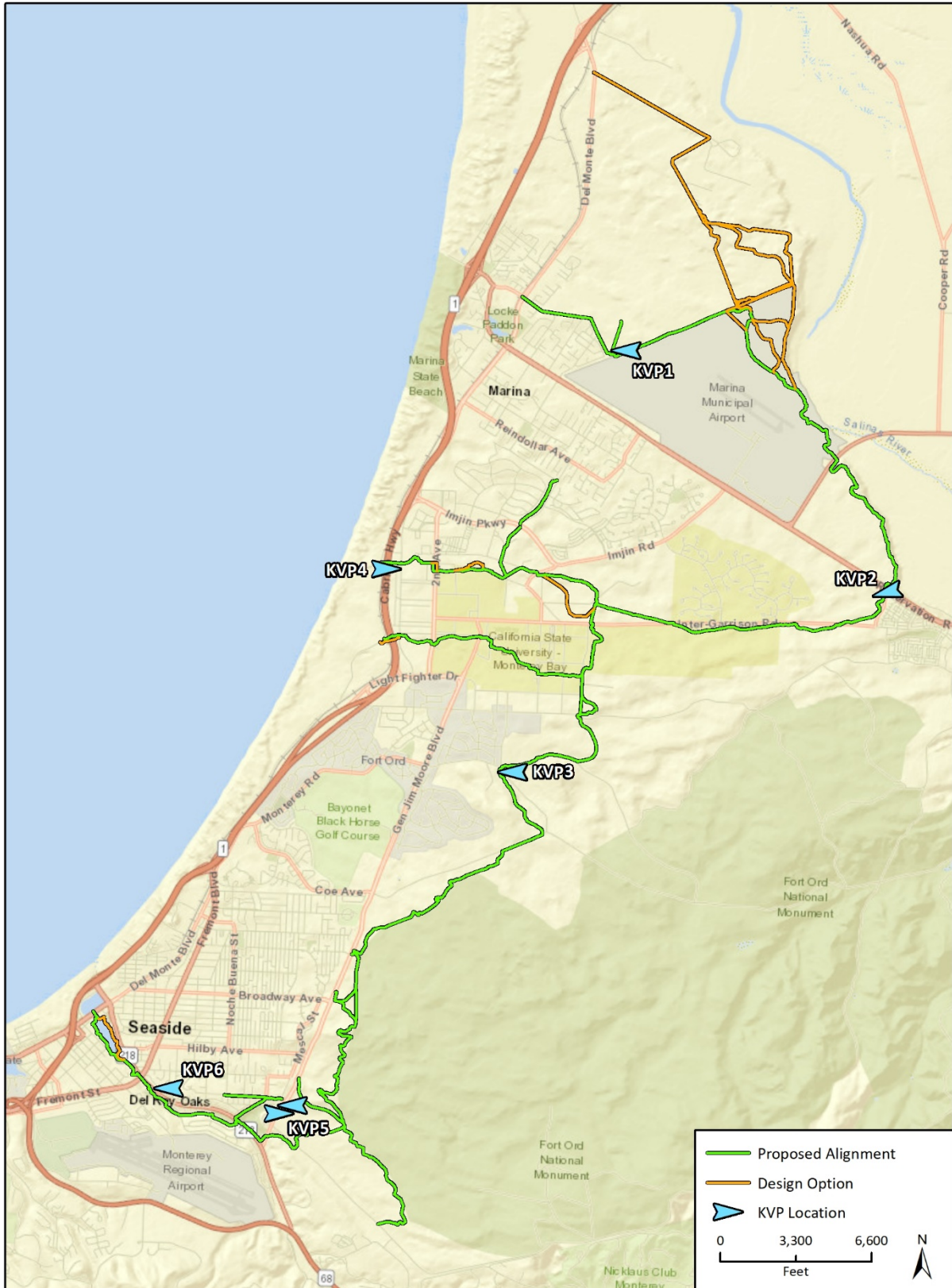
4.1.3 Environmental Setting

Regional Overview

The project corridor is located in northwestern Monterey County and traverses the cities of Marina, Seaside, Del Rey Oaks, and Monterey, as well as unincorporated parts of the county. The County's General Plan Environmental Impact Report notes that the visual character and resources are "inextricably linked to the natural topography, vegetation, and cultural history of the region. Coastal views, agricultural fields, natural ridgelines, and oak woodlands are all prominent elements of the county's visual culture" (County of Monterey 2008, 4.14-1). In general, Monterey County's north coast features broad, sandy beaches backed by the dune formation that rims the inner curve of Monterey Bay. The rural area between the Pajaro River and the City of Marina consists of large tracts of rich agricultural land that visually expand as vast open space looking inland to the Salinas Valley. The distant horizon defines the limit of flat coastal plain and gentle rolling hills, where a ridge line and large expanse of sky are visible on a clear day. Sand dunes extend south through the former Fort Ord Military complex and the cities of Seaside, Sand City, and Del Rey Oaks contributing to the unique aesthetic character of the area (California Coastal Commission 2003).

The project corridor includes periodic views of Monterey Bay from elevated points closest to the coast (especially from SR 1), looking southwest, and the dunes, agricultural lands, and oak woodlands looking west from the more elevated places along the Trail, such as Reservation Road and Blanco Road, or General Jim Moore Boulevard near CSUMB. The northeastern portion of the project corridor is close to the Salinas River; the southwestern portion of the corridor features the wetlands, riparian woodlands, and other estuary waters closest to Del Rey Creek. The Laguna Grande Regional Park is a City-maintained open space with trees and the Laguna Grand/Roberts Lake estuary complex. These areas provide high quality visual interruptions in the commercial and residential developed landscape. **Figure 2-1** in **Section 2, Project Description**, shows the project alignment in its regional context and **Figure 4.1-1** shows a map of the alignment with KVPs indicated in blue. Throughout Monterey County, 43 miles of highway are eligible for scenic highway designation. SR 1 traverses the coastline from north to south and is a state-designated scenic highway in some areas of the county (Caltrans 2019). From the northern edge of the City of Monterey to the northern edge of the City of Marina, SR 1 is only eligible for listing, however, and thus subject just to local jurisdiction governing its use. In the southern portion of the project corridor, SR 68 is a state-designated scenic highway connecting SR 1 and the Salinas Valley (TAMC 2017). Other scenic corridors are either proposed or indicated as a resource in general plans as valuable visual resources, as indicated in **Table 4.1-1**.

Figure 4.1-1 FORTAG Key Viewpoints



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Additional data provided by Alta Planning + Design, 2019.

Fig 4.1-1.kvm

Table 4.1-1 Highway and Corridor Scenic Designations near the Project Corridor

Roadway	Scenic Highway Status	Project Segment
SR 1	Eligible State Scenic Highway	Select segments of Trail alignment
East Reservation Road	City of Marina-proposed Scenic Route	Northern Marina
General Jim Moore Boulevard	Listed as a scenic resource by City of Seaside	CSUMB Loop North CSUMB Loop South National Monument Loop
SR 68 intersection of SR 218 in Del Rey Oaks	State-designated Scenic Highway	Canyon Del Rey /SR 218

Source: Caltrans 2019, Monterey County 2008, TAMC 2017

Project Corridor Setting

The proposed FORTAG alignment would include approximately 28 miles of paved trail on the inland side of SR 1. It comprises several loops from the existing Coastal Rec Trail around the cities of Seaside, Marina, and the CSUMB campus. It would traverse the City of Del Rey Oaks and border FORA lands in several places (**Figures 2-3, 2-4, and 2-5 in Section 2, Project Description**). Similar to the regional setting, the corridor is characterized by urban and suburban development with some industrial and agricultural uses to the west, and the dunes and coast live oak woodland east of the cities and the FORA lands.

Overall, the Trail alignment comprises a mix of woodland, dunes, developed areas, and institutional uses, some of which are derelict remains for the former Fort Ord. The visual quality varies from place to place, with industrial development and other kinds of infrastructure intervening in the landscape and affecting the unity and intactness of views in any direction. The mix of newer residential development and established neighborhoods is eclectic but generally cohesive, while different. Some commercial development features large, national chains with expansive parking lots, around which visitors to the Trail would navigate as they move through the region. This development is in contrast to the sweeping views of the Monterey Bay or agricultural lands from SR 1, for example, and detracts from the visual unit of the area from the City of Marina to City of Monterey. Furthermore, the remains of the former Fort Ord include some industrial and residential structures repurposed by CSUMB, but in other areas there are structures with broken windows, crumbling walls, and a generally unsightly appearance. At the boundary with the cities of Monterey and Seaside, the commercial development is more compact and has design elements that appear more unified with the landscape and existing development. Thus, the visual quality varies throughout the project corridor and it is expected that viewer sensitivity to the existing views and to new development would be moderate to low, with periodic exceptions.

Because of the visual diversity of the alignment and to conduct a thorough and representative analysis, KVPs were selected to represent perspectives throughout the project corridor; they reflect the differences in topography, elevation, and level of development. The KVPs presented in **Table 4.1-2** are organized by segment, from north to south, and the landscape unit is indicated with each key viewpoint. Photographs and text describe the existing conditions and give a sense of the general landscape and aesthetic conditions for similar areas throughout the alignment. The detailed descriptions of each KVP are intended to be representative of the larger, diverse segments of the project corridor and while not exhaustive, are meant to present a comprehensive picture.

Table 4.1-2 summarizes KVP analyzed for this study. A description follows of the area in which the key viewpoint is located.

Table 4.1-2 Summary of Visual Quality Changes and Impacts at KVP

KVP #, Location, & Landscape Unit	Visual Quality Rating Existing	Visual Quality Rating with Project	Viewer Sensitivity
KVP 1 Windy Hill Park, Beach Road, De Forest Road Urban/Suburban and Open Space landscape units	Moderately High	Moderately High	Moderately High to High
KVP 2 Inter-Garrison Road and Reservation Road Open Space Landscape Unit	Moderately High	Moderately High	Moderately High to High
KVP 3 Central Coast Veterans Cemetery Open Space / Institutional Landscape Units	High	High	High
KVP 4 Divarty Street at SR 1, Pedestrian Undercrossing Coastal Landscape Unit	Moderate	Moderately High	High
KVP 5 General Jim Moore Blvd., at San Pablo Ave. Coastal Landscape Unit, adjacent Urban/Suburban	Moderately High	Moderately High	Moderately High to High
KVP 6 Angelus Way, City of Del Rey Oaks Urban/Suburban Residential Landscape Unit	Moderately High	Moderately High	High

KVP 1 Windy Hill Park, Northern Marina Segment

In the Northern Marina segment, **KVP 1** is in the Urban/Suburban Landscape Unit. This landscape unit borders Open Space Landscape Unit and contains views of Beach Road from Windy Hill Park, looking toward the ocean. The Trail would be implemented in the roadway from the segment’s westernmost point to the top of Beach Road, where it transitions to the open space behind Windy Hill Park. Beach Road is characterized by commercial and residential development from the intersection with Cardoza Avenue, where it transitions from Reservation Road. Continuing toward Windy Hill Park, the neighborhood along Beach Road features established residential development, scattered mature trees and landscape plantings and with wide sidewalks and above-ground power transmission lines. Just before Windy Hill Park, Lone Olsen Elementary School is situated on the north side of Beach Road and beyond that is a windrow of mature eucalyptus trees just before the street transitions to De Forest Road. At this point, looking east, the line of eucalyptus borders undeveloped open space and beyond that, agricultural fields and mountains are visible in the distance. Windy Hill Park is situated at the juncture of De Forest and Beach roads. It features play equipment and mature trees, and borders the same open space as the eucalyptus trees. **Photos 1 through 4** in **Figure 4.1-2** and **Figure 4.1-3** offer views of the perspectives on Beach Road and from the park toward the open space where the alignment would occur.

Figure 4.1-2 Corridor Photos: KVP 1 Beach Road, Northern Marina Segment



Photograph 1. Residential development on Beach Road, west of Lone Olsen Elementary School. The Trail would traverse the roadway in this area.



Photograph 2. Windrow of eucalyptus trees lines eastern-most limit of Beach Road with residential development on the left and open space on the right. Perspective is looking west. The Trail would transition to the open space beside the windrow of trees at this point.

Figure 4.1-3 KVP 1, Windy Hill Park, Northern Marina Segment



Photograph 3. Open space east of Beach Road with hillsides perceptible on the distant horizon line. Heavy marine layer obscures visibility. Trail would occur on the north side of the existing fence.



Photograph 4. View of open space from Windy Hill Park, with mature trees, bike racks, and other landscaping visible. The Trail alignment would occur on the north side of the existing fence and continue around the adjacent residential neighborhood and on to where it intersects with the Northern Loop segment around the Marina Municipal Airport.

KVP 2 Inter-Garrison Road and Reservation Road, Northern Loop and CSUMB Loop North Segments

East of the City of Marina, the Trail would cross West Blanco Road just south of the Salinas River and about one mile north east of Reservation Road (see **Figure 2-2** in Project Description). Blanco Road slopes down from the where it borders the Marina Municipal Airport as it descends toward the river, before it curves east. This descent from Reservation Road, while not designated as a scenic vista, is nonetheless expansive, giving on to views of the agricultural lands in the immediate foreground and hillsides looking south and east or the FORA open space lands for westbound travelers.

At the easternmost point of the CSUMB Loop North segment, FORTAG would transition from the northern open space, under Reservation Road via an undercrossing, and continue below the grade of Inter-Garrison Road, where it would be visible from the public sidewalk along Inter-Garrison Road (**Figure 4.1-4**). In this area, former Fort Ord lands have been developed recently with single-family homes east of the alignment; Inter-Garrison Road features an attractive gateway at its intersection with Reservation Road, a wide sidewalk, safety fencing designed to fit with adjacent development, and median plantings. The open space where the Trail would be situated is mixed oak woodland and currently has other, unpaved trails that cross the space. **Figure 4.1-4** shows two views of this KVP where the alignment would occur.

KVP 3 Veterans Cemetery, National Monument Segment

The National Monument segment crosses and circumnavigates the university campus and borders to sides of the California Central Coast Veterans Cemetery, a facility that opened in October 2016. **KVP 3** is in the Open Space and Institutional landscape units and includes the area surrounding the cemetery facility, the grounds of which include formal paths and landscaping that reflect a military-institutional aesthetic with Mission-style architectural influences. **KVP 4** is characterized by heavily wooded open space around the facility, accessed from Parker Flats Cut Off Road near where it becomes Normandy Road. From the parking lot at the administration building, a portion of the Trail would traverse wooded terrain near a retention basin only visible when standing at a fence that marks the edge of the property. **Figure 4.1-5** provides images of the KVP from two perspectives.

KVP-4 Divarty Street at SR 1 and the Coastal Rec Trail, CSUMB Loop South Segment

KVP 4 is in the Coastal Landscape Unit and intersects the existing coastal trail, passes under SR 1 by means of an existing pedestrian undercrossing, where it diverges from Divarty Street and continues through FORA lands as part of the CSUMB Loop South segment. **KVP 4** would be visible to users of the Coastal Rec Trail and visitors to the coastal dunes west of the alignment. It would not be visible from SR 1 due to the elevation of the highway through this part of the City of Seaside. The highway crosses the proposed alignment by means of a concrete bridge that has been the site of heavy graffiti. Either side of the bridge features areas that were formerly developed but are now vacant and areas where structures have been removed, fully or partially. The land has some unmaintained vegetation and the quality of the views looking north and south is low. The ocean is not visible from the east side of the bridge, roughly where the Trail alignment would commence in this area (**Figure 4.1-6, Photos 9 and 10**).

Figure 4.1-4 Corridor Photos: KVP 2, Blanco Road, Northern Loop Segment



Photograph 5. Blanco Road looking north toward the Salinas River where the proposed alignment would occur in the far distance with the overcrossing that would be part of project implementation.



Photograph 6. Open space west of Inter-Garrison Road where undercrossing would emerge beneath Reservation Road. Reservation Road appears in the middle distance, lined by trees; Inter-Garrison Road appears in the right bottom corner of the image and continues to its intersection with Reservation Road.

Figure 4.1-5 Corridor Photos: KVP, Veterans Cemetery, National Monument Segment



Photograph 7. Entrance to the California Central Coast Veterans Cemetery; the project alignment would traverse the woodland area north of the roadway pictured here.



Photograph 8. Inside the cemetery grounds, the alignment would traverse the open space beyond the retention pond pictured here. Image is taken looking southeast from the administration building on the cemetery grounds.

Figure 4.1-6 Corridor Photos: KVP, Divarty Street at SR 1, CSUMB Loop South Segment



Photograph 9. SR 1 bridge over Divarty Street looking west. The Trail would begin on the west side of the bridge, follow the roadway to the point where it would transition to the grounds of the CSUMB campus.



Photograph 10. Detail of bridge with graffitied walls and unmaintained iceplant on land adjacent to Divarty Street. Alignment would occur adjacent to this area.

During the survey, it was observed that people use the area as an unofficial parking area, with some drivers sleeping in the cars. This gives the area on Divarty Street, closest to the bridge a feeling of not being entirely safe and contributes to the generally low visual quality of this spot.

KVP 5 General Jim Moore Boulevard, Southern Part of National Monument Loop Segment

In the City of Seaside, an east-west running portion of General Jim Moore Boulevard offers limited views toward the ocean. **KVP 5** considers the area around one portion of General Jim Boulevard, near San Pablo Avenue where the National Monument Loop segment would parallel or cross the roadway (see **Figure 4.1-6, Photos 9 and 10**). This KVP is in the Coastal Landscape Unit and overlaps with the Urban/Suburban Landscape Unit where the area is developed, west of the roadway. While General Jim Moore Boulevard is not designated officially as a scenic corridor, the draft Seaside General Plan 2040 indicates that the “ridgeline along and west of General Jim Moore Boulevard [toward] Monterey Bay, coastal mountains, and city views are prominent...and views [east] of the former Fort Ord lands and surrounding mountains” are scenic and visual resources for the city (Seaside 2019b, 174). Even though, for the most part, the alignment would be far enough from the roadway to have no effect, in places it crosses General Jim Moore Boulevard, a wide roadway with median landscaping and sidewalks on both sides. The roadway is elevated above the western part of the city for much of its north-south reach, and includes dunes and vegetation in areas where the Trail would occur.

Views from the roadway toward the ocean are often obscured by the abandoned buildings from the former Fort Ord and existing residential and institutional development (**Figure 4.1-7, Photos 11 and 12**). Large stands of Monterey cypress and other trees are visible in the middle ground and the ocean can be seen in a limited way on the distant horizon. Rising topography limits views to the east but where they are accessible, views include native and non-native vegetation against the broad spans of sky above the open, rolling dunes (**Figure 4.1-8, Photos 13 and 14**).

KVP 6 Del Rey Oaks, Angelus Way Neighborhood, Canyon Del Rey/SR 218 Segment

KVP 6 is in an Urban/Suburban Landscape Unit in the Canyon Del Rey/SR 218 Segment that passes through a small community on Angelus Way in the City of Del Rey Oaks. The street features established residential development on hillsides of various heights, with densely planted mature trees that give the neighborhood a wooded feeling and contribute to its eclectic, quaint aesthetic. At the end of Angelus Way, a garden supply store is situated beside an existing park trail, which emerges where Angelus Way begins (**Figure 4.1-9, Photos 15 and 16**). Crossing over Rosita Road, Angelus Way is characterized by single-family homes with mature trees, and native and non-native landscaping. Industrial features in the form of powerlines cross the street in a manner disharmonious with the visual character of the neighborhood. This is somewhat softened by the dense trees and other plants. The neighborhood has a high visual quality in spite of the lack of sidewalks and the intrusion of the industrial features.

The viewers in this area would be expected to have a high sensitivity to the project from the street, as both drivers and pedestrians. The residential nature and width of the roads require drivers to travel at low speeds. Pedestrians currently use the street without the benefit of sidewalks, but this is part of the aesthetic of the neighborhood that distinguishes it from other, more recent suburban development throughout the alignment (**Figure 4.1-10, Photo 17**). **Photograph 18 in Figure 4.1-10** shows mature vegetation that screens residences from the street in some areas.

Figure 4.1-7 Corridor Photos: KVP 5, General Jim Moore Boulevard, National Monument Loop Segment (south)



Photograph 11. General Jim Moore Boulevard looking south at the place where the alignment would traverse the eastern open space with dunes in the foreground.



Photograph 12. General Jim Moore Boulevard looking south where the Trail would occur on the left side of the photograph, at a proposed crossing point.

Figure 4.1-8 Corridor Photos: KVP 5, General Jim Moore Boulevard, National Monument Loop Segment



Photograph 13. View looking across dunes just west of General Jim Moore Boulevard toward the ocean with intervening residential development. The Trail alignment would be on the opposite side of the roadway.



Photograph 14. Second view of residential and industrial development looking west toward the ocean from General Jim Moore Boulevard. Trail would occur on the opposite side of the roadway from this vantage point.

Figure 4.1-9 Corridor Photos: KVP 6, Del Rey Oaks, Angelus Way Neighborhood, Canyon Del Rey/SR 218 Segment



Photograph 15. Angelus Way at the point where Coastal Rec Trail emerges with garden supply structures on either side of the image. Landscape includes mature trees above the Canyon Del Rey Creek. Proposed Trail alignment would join with existing trail and continue in the roadway through the neighborhood east of the garden center.



Photograph 16. Angelus Way looking east from Rosita Road where proposed alignment would continue east toward the Ryan Ranch segment.

Figure 4.1-10 City of Del Rey Oaks, Angelus Way Neighborhood, Canyon Del Rey/SR 218 Segment



Photograph 17. Angelus Way neighborhood with mature vegetation, above-ground transmission lines, and residential development. At this point, Trail alignment would traverse the roadway before transitioning to openspace beyond SR 218 at General Jim Moore Boulevard in the east.



Photograph 18. Angelus Way neighborhood with mature vegetation, above-ground transmission lines, and residential development. At this point, Trail alignment would coincide with the roadway.

4.1.4 Regulatory Setting

Federal

A portion of the project will be funded by a federal Active Transportation Project grant, and that part is subject to the National Environmental Policy Act (NEPA) of 1969, which states it is the responsibility of the federal government to “assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings...and to attain the widest range of beneficial uses in the environment without degradation, risk to health or safety, or other undesirable and unintended consequences” (NEPA Section 101 42 USC Section 4331 [b] [2, 3]). NEPA Section 202 states the Council on Environmental Quality (CEQ) shall ...appraise programs and activities of the federal government...to be conscious of and responsive to the scientific, economic, social, aesthetic, and cultural needs and interests of the nation” (42 USC Section 4342). Finally, relative to transportation projects that receive federal funding, the Federal Highway Administration (FHWA) is committed to “the examination and avoidance of potential impacts to the social and natural environment when considering approval of proposed transportation projects (FHWA 2019).

State

California Department of Transportation

The California Streets and Highways Code Article 2.5.260 to 284 addresses the State’s responsibility to protect and enhance designated scenic highways and those eligible for designation. The code specifically notes the State’s responsibility (executed by Caltrans) to establish and apply planning design procedures that facilitates protection of the social and economic value of the State’s scenic resources through “continuing and careful co-ordination of planning, design, construction, and regulation of land use and development, by state and local agencies as appropriate. This is achieved for transportation-related projects, particularly, through the application of the Visual Impact Assessment criteria to determine the level of evaluation necessary for a given project.

California Coastal Act

The California Coastal Act, enacted in 1976, establishes procedures for the review of proposed developments in the coastal zone and policies for the protection of coastal resources and public access to the coastline. The following Coastal Act regulations in the Public Resources Code pertain to aesthetics.

SECTION 30251

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

SECTION 30253

New development shall do all of the following:

- (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard
- (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs
- (c) Be consistent with requirements imposed by an air pollution control district or the state Air Resources Board as to each particular development
- (d) Minimize energy consumption and vehicle miles traveled
- (e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses

Local

Fort Ord Reuse Authority (FORA) Regional Urban Design Guidelines

The FORA Design Guidelines identify Broadway Avenue as “one of Seaside’s grandest ascending vistas to the [Fort Ord National] Monument” at its intersection with General Jim Moore Boulevard (FORA 2019). The Guidelines go on to state that a gateway at this intersection could make “the view looking back down Broadway Avenue toward the ocean [into]... a spectacular panorama across the town and out over Monterey Bay.” While this vision does not constitute a formal scenic roadway or corridor designation for General Jim Moore Boulevard, it is part of the overall vision for this area where the National Monument and the City of Seaside intersect. Projects that have a visual effect at this site could be subject to FORA review for potential impact, including portions of the CSUMB Loop South and the National Monument Loop segments.

County of Monterey

MONTEREY COUNTY GENERAL PLAN

The County’s 2010 General Plan addresses all aspects of future growth, development, and conservation throughout the unincorporated areas of Monterey County. The current General Plan contains visual resource policies intended to preserve the County’s scenic and rural character. These include:

- **Policy 26.1.6.** Development which preserves and enhances the County's scenic qualities shall be encouraged.
- **Policy 26.1.12** The significant disruption of views from designated scenic routes shall be mitigated through use of appropriate materials, scale, lighting, and siting of development.
- **Policy 26.1.20.** All exterior lighting shall be unobtrusive and constructed or located so that only the intended area is illuminated, long range visibility is reduced, and offsite glare is fully controlled.
- **Policy 40.2.1.** Additional sensitive treatment provisions shall be employed within the scenic corridor, including placement of utilities underground, where feasible; architectural and landscape controls; outdoor advertising restrictions; encouragement of area native plants, especially on public lands and dedicated open spaces; and cooperative landscape programs with adjoining public and private open space lands.

- **Policy 40.2.2.** Land use controls shall be applied or retained to protect the scenic corridor and to encourage sensitive selection of sites and open space preservation. Where land is designated for development at a density which, should maximum permissible development occur, would diminish scenic quality, the landowner shall be encouraged to voluntarily dedicate a scenic easement to protect the scenic corridor.

MONTEREY COUNTY CODE

Title 21 of the Monterey County Code establishes provisions for zoning and strikes a balance between prompting and protecting the “general welfare of the people of the county...[and] respecting ... the development rights of property owners.” Various sections regulate the design and upkeep of signage, structural (retaining) walls, and open spaces. In particular, Section 21.66.010 and Section 21.66.020 delimit standards for development that relate to aspects of the project relative to visual impact from public viewing areas, and the provisions for Use Permit issuance.

Chapter 21.63 prescribes compliance with adopted design guidelines for project features and exterior lighting such that they “enhance the preservation of Monterey County’s environmental and visual resources such as views of the night sky, sensitive public viewsheds, and natural landscapes.”

City of Marina

MARINA GENERAL PLAN

The City of Marina General Plan (City of Marina 2010) offers guidance for the development and design of trails in the city and its sphere of influence.

- **Policy 3.34.7** Public Art. The City of Marina should celebrate public art with a focus on placing artwork along roadways, bikeways, sidewalks, and recreational trails. Art, art interpretive programs, and nature interpretive programs should be developed with participation of the arts community.
- **Policy 4.123** The following scenic and cultural resources are deemed to be particularly valuable, and the following policies should be pursued:
 - **3.** The visual character and scenic resources of the Marina Planning Area shall be protected for the enjoyment of current and future generations. To this end, ocean views from Highway 1 shall be maintained to the greatest possible extent.

Finally, **Table 2.2** in the Community Land Use Element provides standards for recreation trails as follows:

- Pathways suitable for walking, running, or biking with a minimum right-of-way width of 20 feet where trails are not located within a designated recreation or park area

MARINA MUNICIPAL CODE

The City of Marina Municipal Code Section 17.41.240 includes provisions for site and architectural design review. While focused mainly on architectural review, this could apply to the project where architectural-type elements (e.g., retaining walls or shade structures) are implemented within the City’s jurisdiction.

City of Seaside

SEASIDE GENERAL PLAN

Visual and aesthetic aspects of development are addressed in various elements of the Seaside General Plan. In Land Use and Community Design, policies under Goal LUD-5 include encouraging unique design of “visitor-serving amenities ...related to specific adjacent activities in the Fort Ord Monument” (City of Seaside 2019a, 60). The Parks, Open Space, and Conservation element focuses on “quality green spaces [that]...encourage physical activity, improve well-being, ... and provide an aesthetic backdrop to the city” (City of Seaside 2019b, 161). Goals and policies that support this endeavor are as follows:

- **Goal POC-2.** Natural open space on former Fort Ord lands
 - **Active open space corridors:** In partnership with regional and local agencies, develop open space corridors that support ... scenic vistas
- **Goal POC-3.** Well-maintained and safe parks, recreational facilities, and open spaces
 - **Lighting:** Provide appropriate lighting and visibility in park facilities while minimizing adverse impacts to adjacent properties
- **Goal POC-9.** New development supports the preservation or enhancement of the city’s natural resources
 - **Dark sky lighting standards:** Require new construction or modifications to existing development and public facilities to adhere to dark sky lighting standards or the control of outdoor lighting sources by shielding light in the downward direction and limiting bright white lighting and glare
- **Goal POC-10.** A city that protects, conserves, and enhances the natural beauty and resources within the coastal zone
 - **Highway 1:** Preserve the unique public views visible from the Highway 1 corridor between Fremont Boulevard and the northern boundary of the city.
- **Goal POC-13.** Scenic vistas, views, and highways are protected and enhanced
 - **Views:** Protect public views of significant natural features, such as Monterey Bay, the Pacific Ocean, the surrounding mountains, and other important viewsheds, as identified in Figure 5.
 - **Signage and infrastructure:** Encourage signage, infrastructure, and utilities that do not block or detract from views of scenic vistas
 - **Light pollution:** Preserve skyward nighttime views and lessen glare by minimizing lighting levels along the shoreline by continuing to follow dark sky guidelines

While the General Plan does not directly address trails and their visual quality, it does state generally that “open space provides aesthetic value,” and notes that improvements in adjacent areas, such as FORA, would be of benefit to the community (City of Seaside 2019, 60).

SEASIDE MUNICIPAL CODE

The Seaside Municipal Code, Section 17.22.040.C3 establishes protection for public vista points and protection of the natural topography, including prescription for “minimal grading, cutting, or filling.”

Section 17.30 establishes standards for development and land uses, including those for walls and screening, height limits for structures, and setback requirements. Section 17.30.070 limits the height of outdoor light fixtures, and Section 17.40.030 describes the approval process for new signs in the city.

City of Monterey

CITY OF MONTEREY GENERAL PLAN

The City of Monterey General Plan (City of Monterey 2016) Urban Design Element addresses the visual attributes of open space and emphasizes the aesthetic value of the natural landscape east of the city. The project would skirt these vistas and thus would be subject to the following:

- **Urban Design Goal b. Wooded Skyline and Foothills.** Preserve the wooded skyline and foothills, which provide the southern and eastern framework for the city, including areas within and beyond the city limits.
 - **Policy b.2.** New development in the ridge areas should be sensitively located to preserve the forested setting. Development in the ridge areas should not silhouette against the skyline.
 - **Policy b.5.** Development in forested areas should not create obvious holes in the forest.
 - **Policy b.6.** Trails in forested areas are encouraged to allow for passive public enjoyment of the natural setting.
- **Urban Design Goal c. Wooded Canyons.** Respect and retain the wooded canyons as distinctive natural features, as the natural separation of neighborhoods, as locations for scenic roadways, and as recreational opportunities.
 - **Policy c.1.** Maintain the canyons and their native vegetation throughout their lengths.

The General Plan Open Space Element specifies guidelines for projects that link open space and public use, such as implementation of the project would do. It also places importance on Roberts Lake and Laguna Del Rey, two water bodies on the border between Monterey and Seaside, around which the project would be constructed. Finally, the element includes a discussion of preserving and augmenting vistas in the city wherever possible. The goals and policies are as follows:

- **Open Space Goal a.** Preserve the Monterey Bay as the City's most significant natural resource.
 - **Policy a.3.** Protect the views into Monterey Bay.
- **Open Space Goal c.** Preserve greenbelts to ensure an overall visual impression of open space on the hillsides above Monterey, between neighborhoods and along major transportation corridors.
 - **Policy c.2.** Coordinate with the County to preserve greenbelts, which form the backdrop of Monterey.
- **Open Space Goal d.** Preserve and improve lakes and waterways as important visual, habitat, flood protection, and recreation resources.
 - **Policy d.1.** Continue to preserve Lake El Estero, Del Monte Lake, Roberts Lake [and Laguna Del Rey], Laguna Grande, Washerwoman's Pond, and Lagunita Mirada as visual open space features.
 - **Policy d.5.** Continue to support and enhance the public use of the City's lakes.

- **Open Space Goal f.** Maintain existing vistas and seek to improve new vista points seen from roadways, parks, and other public spaces. Collaborate with other agencies to protect city vistas and scenic amenities.

City of Del Rey Oaks

CITY OF DEL REY OAKS GENERAL PLAN

Under the City's Land Use Element, the following goals apply to the project. There are no specific policies that guide visual resources in the community, specific to recreation or open space, however (City of Del Rey Oaks 1997).

- **Goal L-1** Enhance the beauty, health and safety, and quality of life for residents of ...Del Rey Oaks.
- **Goal L-3** Create and maintain pleasant City entrances and scenic views from Canyon Del Rey Road.
- **Goal L-12** Conserve and improve the living environment of existing Del Rey Oaks neighborhoods.

Fort Ord Base Reuse Plan

Where the project corridor intersects with FORA lands, it is subject to the Base Reuse Plan and ensuing planning guidelines. The following reflects Base Reuse Plan objectives that pertain to FORTAG.

- **Recreation/Open Space Land Use Objective D:** Retain open space to enhance the appearance of special areas that serve as primary gateways to the Fort Ord area.
- **Circulation Objective B:** Provide a bicycle system that supports the needs of Fort Ord residents, employees, students, and visitors.
 - **Pedestrian and Bicycles Policy B-1.** Each jurisdiction shall provide and maintain an attractive, safe, and comprehensive bicycle system
- **Open Space and Recreation Objective B:** Protect scenic views, and preserve and enhance visual quality.
- **Open Space and Recreation Objective G:** Use open space to create an attractive setting for the former Fort Ord's new neighborhoods and institutions.

4.1.5 Methodology and Significance Thresholds

Methodology

This section describes the potential environmental impacts of FORTAG and all FORTAG design options relevant to aesthetics. Visual or aesthetic resources are evaluated through application of the terms listed at the beginning of this section to how the proposed trail might affect viewers who experience existing visual and aesthetic conditions in the project corridor. The assessment of impacts to scenic vistas, scenic resources, and visual character involves qualitative analysis that is inherently subjective, but as discussed above, FHWA, Caltrans, and other entities have developed methodologies for performing systematic visual impact analysis that contend with how different viewers react to viewsheds and aesthetic conditions differently. Depending on the extent to which a

project's presence would alter the perceived visual character and quality of the environment, a visual or aesthetic impact may occur.

An initial desktop analysis of Google Earth GIS data identified KVP throughout the project corridor that represent the potential for impacts to visual resources. A visual survey of the project corridor occurred July 31 to August 2, 2019, where photographs were compared to viewpoints indicated in initial engineering designs. Notes about the extent of the perspective, the quality of the landscape, and potential viewer sensitivity were made on worksheets for each KVP, provided in **Appendix B**. By combining vividness, intactness, and unity, the visual quality was determined to be somewhere between high and medium, with areas of low quality on former Fort Ord lands dominated by derelict buildings close to the proposed alignment. The effect of the project was then assessed in terms of estimated degree of its effect on the quality of the viewshed (Smardon 1988).

The CEQA thresholds for visual effects require that impacts to public views be considered. Therefore, the Transportation Agency for Monterey County is concerned only with visual impacts from public views, not private ones. The Transportation Agency has discretion to make this distinction and does so because requiring mitigation for impacts to purely private views would give private landowners a kind of power over land uses on adjacent or nearby properties that they do not enjoy under California law (refer to *Mira Mar Mobile Community v. City of Oceanside* [2004] 119 Cal.App.4th 492-493, quoting *Wolford v. Thomas* [1987 190 Cal.App.3d 347, 358], for the proposition that "California landowners do not have a right of access to air, light and view over adjoining property").

Comments received during the Notice of Preparation scoping period concerned potential impacts from light and glare to nighttime views from public parks, roadways, or private backyards. Because the potential effects to the nighttime sky would be distributed across the region, the ruling cited previously does not apply and the potential effects are evaluated under **Threshold 4**.

The analysis provided below compares existing visual conditions in the project corridor to those anticipated after implementation of FORTAG. The proposed alignment was observed and photographed along with its surrounding context. The general plans and ordinances for Monterey County, FORA, and the cities of Marina, Seaside, and Del Rey Oaks were reviewed for instruction relative to visual resources and design policy.

Significance Thresholds

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For the purposes of this Environmental Impact Report, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

1. Have a substantial adverse effect on a scenic vista
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway
3. In non-urbanized areas, substantially degrade the existing visual character or quality of the site or its surroundings (public views are those that are experienced from a publicly accessible vantage point); or in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality
4. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area

4.1.6 Project Impact Analysis

Threshold 1: Would the project have a substantial adverse effect on a scenic vista?

Impact AES-1 THE PROJECT WOULD HAVE A SUBSTANTIAL ADVERSE EFFECT ON A SCENIC VISTA WHERE OVERCROSSING AND UNDERCROSSING COMPONENTS ARE INSTALLED. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

As stated in **Section 2, Project Description**, FORTAG is organized in seven segments that total approximately 28 miles of paved trails for pedestrians and bicycles. Scenic vistas occur in various places throughout the area, but the project would be designed to impact views as little as possible. The Trail itself would be a flat, narrow pathway with no buildings or other structures that would be constructed that would block views where scenic vistas exist. In this analysis, scenic vistas are considered viewpoints that offer expansive/panoramic views of a large geographic area, for the benefit of the public. They can be associated with a dramatic change in elevation, but they can also be from an undeveloped flat area toward features in the distance, such as mountains or the ocean.

In the Northern Loop segment, the Trail would circle around the Marina Municipal Airport and cross Blanco Road just northeast of Reservation Road. Although Reservation Road is a designated scenic corridor, Blanco Road is not (City of Marina 2008). Nevertheless, Blanco Road is a four-lane roadway with a paved median and bicycle lanes in either direction. The roadway is elevated at the signal where it intersects Reservation Road, and descends as it travels east toward the Salinas River. Travel in this direction offers a sweeping view of the agricultural valley northeast of the project alignment, along with a view of the riparian corridor formed by the Salinas River, and the distant ridgelines and peaks at the horizon. While some of the undeveloped portions of the airport lands abut the roadway near Reservation Road, the longer view is of this signature Monterey County landscape, which forms an important contribution to the visual placemaking in the region. From **Photograph 5** in **Figure 4.1-4**, it is evident that motorists and cyclists traveling northeast on Blanco Road have an expansive view and would have medium to high sensitivity to the effects that impact this vista. Both motorists and cyclists would be moving, reducing their sensitivity to some extent, but the broad expanse nonetheless presents a setting, the alteration of which would affect the viewer.

The proposed project includes an overcrossing at Blanco Road to allow the Trail to traverse the roadway and continue on the Northern Loop segment. This overcrossing would necessarily be long, to traverse four traffic lanes and access easements, and high to accommodate underpassing vehicles including agricultural equipment and trucks. A structure of this kind would be prominent and visible from the either direction traveling on the roadway. If not sensitively designed, any obstructing structure would adversely impact this vista. Because this overcrossing would introduce a non-natural element in a relatively natural and expansive landscape, it would disrupt the long-range view of the landscape looking north and east toward the Salinas River, in particular for the eastbound traveler. The visual effect would be considerable and would require implementation of **Mitigation Measure AES-1** to reduce impacts to less than significant.

On the other side of Reservation Road, at Inter-Garrison Road, one of the four proposed undercrossings would provide a way for the Trail to traverse the landscape under Reservation Road. This feature would be visible as a tunnel in the hillside from the sidewalk on Inter-Garrison Road as the viewer looks west across expansive open space. In the City of Del Rey Oaks, undercrossings would also occur at SR 218 and General Jim Moore Boulevard, near the Frog Pond Wetland Preserve, where a similar effect could occur with the landscape being visually disrupted by an

infrastructure feature. These undercrossings (see **Figure 2-11** for exact locations) have the potential to affect the view of the landscape by introducing an industrial feature that would significantly change the visual character of that location. Adherence to **Mitigation Measure AES-1** would reduce impacts to less than significant.

In the National Monument Loop segment, the City of Seaside and by FORA indicate General Jim Moore Boulevard as a roadway that offers access to scenic resources, despite the fact that it is not officially designated as a scenic roadway or scenic corridor in local planning documents (FORA 1996, City of Seaside 2019). The proposed alignment would parallel the General Jim Moore Boulevard on its eastern side, mostly east of the dunes that border the roadway. The Trail would be flat through this area and the points where it crosses the roadway would take advantage of existing pedestrian infrastructure. The design of at-grade crossing facilities would be flat and in keeping with existing, similar transportation facilities in the area; they would create no impact beyond what already exists.

In summary, the Trail profile would be limited compared to other large-scaled land development existing and planned in the corridor, such as commercial development in the City of Seaside or institutional structures on the CSUMB campus. Thus, FORTAG would be nominally visible in most places throughout the project corridor. Overcrossings and undercrossings would be installed that would not interfere with designated scenic vistas in the project corridor, but could have an impact to long-range views in the places they occur. This could lead to an impact to scenic visual resources, particularly if the design of these elements was obtrusive or considerably different from the visual character of the surrounding landscape. With implementation of the **Mitigation Measure AES-1**, this impact would be reduced to a less than significant level.

Mitigation Measure

AES-1 Design Structures to be Visually Unobtrusive

For all FORTAG overcrossings and undercrossings, structural design shall be compatible with the surrounding landscape. Overcrossings shall be designed with visual permeability to the extent feasible. Openings shall provide viewing to frame the viewshed. Materials used shall be visually light, with natural-appearing materials and earth-toned colors compatible with the viewshed. Undercrossing entrances and exits shall include materials with textures and forms that relate to the immediate surroundings. Where feasible, install hardscaping that is of natural materials, landscaping that is compatible with the local natural plant palette, or other design features that soften the entrances and exits as they transition into and out of sloped areas. Surfaces shall be graffiti-resistant and readily repaired from graffiti. Specific design features shall be included in the final plan set and subject to implementing entity review and approval, prior to the initiation of construction. The implementing entity for any segment containing an overcrossing or undercrossing shall review the design plans for these structures to ensure they meet these requirements prior to issuance of building permits.

Significance After Mitigation

This impact would be less than significant with mitigation.

Threshold 2: Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Impact AES-2 THE PROJECT WOULD NOT SUBSTANTIALLY DAMAGE SCENIC RESOURCES WITHIN A STATE SCENIC HIGHWAY OR ANY ROUTE PROPOSED LOCALLY FOR SCENIC CORRIDOR DESIGNATION. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Table 4.1-1 offers a list of highways and corridors near the proposed alignment with their scenic status and location. Areas where policy documents note scenic resources not designated as scenic highways or corridors are discussed briefly for informational purposes.

SR 1 is a designated State Scenic Highway through parts of Monterey County, but is eligible for designation, and not officially designated, through the project corridor (Caltrans 2019). Most of the scenic views from SR 1 are toward Monterey Bay and the sweeping coastline, not toward the eastern, developed areas. Much of the view looking east of the highway, where it is visible through Marina and Seaside, is of commercial development and parking lots. The distant hillsides are obscured frequently by the trajectory and height of the roadway or by coastal fog. The Trail intersects with SR 1 in two places: as part of the CSUMB Loop North and CSUMB Loop South segments on 8th Street and Divarty Street, respectively. On 8th Street, the Trail alignment would traverse the existing bridge that passes over SR 1 and would not be visible from the highway. Furthermore, the Trail footprint would be in line with existing transportation infrastructure and therefore, would present no change from what is in place currently. At Divarty Street, the Trail would pass under SR 1 by means of existing infrastructure and would not be visible from the highway. As both portions of these segments continue east, they would not be visible from the highway due to distance and the curve of the roadway. Both portions of the Trail would also be obscured by existing development and vegetation. Neither of the SR 1 crossings would be modified by project implementation. There would be no impact to the scenic vista from SR 1 by implementation of the proposed project.

The eastern portion of Reservation Road is listed as a proposed scenic route in the Monterey General Plan (Monterey 2010, Figure 14), east of the City of Marina and parallel to FORA lands. FORTAG would run perpendicular to Reservation Road in the easternmost portion of the Northern Loop segment, west of the intersection with Inter-Garrison Road. The Trail traverses open space at a lower elevation than the roadways and would require an undercrossing at Reservation Road (see **Figure 2-11** in **Section 2, Project Description**, for exact location). While the project would change the existing condition, it would not have a substantial adverse effect on the any resources visible from Reservation Road or Inter-Garrison Road as the Trail would be flat and the undercrossing would be designed minimally to blend in with the landscape. Impacts to Reservation Road would be less than significant.

While General Jim Moore Boulevard is not designated as a scenic corridor by any jurisdictional entity, the FORA Base Reuse Plan and the *Draft Seaside 2040* state that sweeping views of the ocean are available from this roadway (FORA 1996, City of Seaside 2019). It is elevated above the City of Seaside for much of its north-south reach, but views toward the ocean are often obscured by residential development, industrial components, and abandoned buildings from the former Fort Ord (see discussion of **KVP 3** and **KVP 4** for details). Views east are limited by rising topography and include low dunes with native and non-native vegetation, dense oak woodland, and expanses of sky above the horizon. Because the Trail would have a low profile and would use existing or similar transportation infrastructure where it intersects with General Jim Moore Boulevard, there would be no impact to the visual resources from this roadway.

SR 68 is designated officially as a State Scenic Highway from SR 1 to the Salinas River. It is part of the historic DeAnza Trail, a road that linked the California mission settlements during the Spanish colonial period (California Highways 2012). SR 218 terminates at the intersection with SR 68, southeast of the City of Seaside and outside the project corridor. Existing conditions at this intersection include transportation elements (signal lights) and mature trees along the roadways. Long-distance views are not available at this juncture. Trail implementation would not require removal of trees and any heritage or protected trees would be subject to local regulations (see **Section 4.4, Biological Resources**, for detailed discussion of impacts to vegetation). While proximate to the project corridor, the Trail would not be visible from SR 68, neither along Canyon Del Rey/SR 218 segment nor from the Ryan Ranch segment southeast terminus, due to distance. There would be no impact to visual resources on SR 68 from project implementation.

Overall, visual resources, including trees, hillsides, and the Pacific Ocean, would not be subject to significant or adverse effects in these corridors during construction or operation of FORTAG. The impact would be less than significant. No mitigation is required.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

This impact would be less than significant without mitigation.

Threshold 3: Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Impact AES-3 THE PROPOSED RETAINING WALLS, UNDERCROSSINGS, OVERCROSSINGS, AND TRAIL AMENITIES COULD CHANGE THE VISUAL CHARACTER OF THE PUBLIC VIEWS OF THE SITE WHERE THE TRAIL ALIGNMENT IS IN NON-URBANIZED AREAS, POTENTIALLY CAUSING SIGNIFICANT IMPACT. IN URBAN/SUBURBAN AREAS, THE PROJECT WOULD NOT CONFLICT WITH APPLICABLE ZONING, AND WOULD SUPPORT GOALS AND POLICIES IN ADOPTED GENERAL PLANS; WHERE NO REGULATION OR GUIDANCE IS IN PLACE, THE PROJECT WOULD BE SUBJECT TO THE MITIGATION BELOW. OVERALL, THE IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

The KVPs presented in **Section 4.1.1, Existing Conditions**, provide representative visual data for sites throughout the project corridor. **Table 4.1-2** offers a list of KVPs throughout the project corridor with their location, visual quality ratings, viewer sensitivity, and a summarized impact. The following discusses impacts to the KVPs as representative to similar impacts throughout the project corridor. While the discussion focuses on the specifics of the KVPs, as they represent similar, related areas across the project corridor, corresponding mitigation would apply to the same kinds of impacts for the entire project, where necessary. On the whole, changes in visual character across the project corridor would be limited by the minimal design of the trail, but some features would be subject to **Mitigation Measure AES-3** to minimize impacts, as described below.

KVP 1, in the Northern Marina segment, includes the neighborhood on Beach Road where the alignment would be located on the roadway, and the open space area north of Windy Hill Park, where the alignment transitions onto the open space. A Class II bike lane or Class III bike boulevard

in this location would be visually consistent with existing transportation infrastructure including sidewalks, curb and gutter, and striping, and would not introduce substantial new visual elements. On the open space portion, the paved trail would be flat and visibly unobtrusive. Other amenities may include replacement of the existing barbed wire fencing and gate and installation of new fencing or other amenities that could create a limited visual impact. New elements would likely be similar to existing conditions at the park and on Beach Road, but significant changes such as the installation of shade structures or benches could create a significant impact if their design was disharmonious with existing design.

In the eastern part of the Northern Loop segment, **KVP 2** occurs on Blanco Road and on Inter-Garrison Road near where they intersect with Reservation Road. On Blanco Road, the proposed project would include an overcrossing just beyond the initial descent toward the Salinas River, where it would create a strong visual component in the middle ground for travelers in both directions, including cyclists using the existing Class II bicycle lane facility on the east side of the road (**Figure 4.1-4, Photo 5**). Viewers would have moderately high to high sensitivity at this location, depending on their activity (cycling versus commuting). Introduction of a new element over the roadway would present a substantial degradation to the visual character in the middle ground because it would introduce a large transportation infrastructure component that would be highly visible to northbound travelers and would intervene in the view of the open land and ridgelines looking toward the Salinas River.

The Northern Loop segment would include an undercrossing of Reservation Road at the intersection with and west of Inter-Garrison Road. The west side of Inter-Garrison Road is above the grade of the Trail alignment and is highly visible to pedestrians and cyclists traversing the sidewalk (**Figure 4.1-4**). Viewer sensitivity would be high from the elevated position on Inter-Garrison Road, but low to moderate for drivers on the roadway. On Reservation Road and on Inter-Garrison Road, viewers in vehicles would also have a low level of visual sensitivity due to rate of speed and the elevated grade of the roadway. The undercrossing would emerge from the hillside and create a demonstrable change in the visual character of the hillside for pedestrians, cyclists, and potentially drivers, on Inter-Garrison Road as shown in **Figure 4.1-4**. Implementation of this component would create a significant impact at this location, and any other places where a tunnel or overcrossing would occur.

KVP 3 is in the northern part of the National Monument segment and includes areas east of CSUMB on the former Fort Ord, where the Central Coast Veterans Cemetery is located. Approaching the cemetery, the Trail would be in the wooded open space and would not be visible from the roadway or the cemetery grounds (**Figure 4.1-5, Photo 7**). The Trail would circle the administration building where it would not be visible, and continue around an existing retention pond where it would be visible in the middle ground if a visitor stands at the boundary fence (**Figure 4.1-5, Photo 8**). The Trail would not be visible from other parts of the cemetery, including the Monument, east of the Administration Building. From the grounds, viewers would have a high degree of sensitivity as they visit. While the grounds have a high visual quality, the implementation of FORTAG adjacent to the cemetery would not have a significant impact on visual quality in adjacent areas of the KVP. The same determination applies to areas like the Northern Loop or Ryan Ranch segments, where the Trail would be located mainly in wooded open space or otherwise undeveloped and would create no significant impact to visual quality.

KVP 4 occurs in the CSUMB Loop South segment and represents places where the alignment occurs closest to the coast and where it is intended to meet up and provide connectivity with the Coastal Rec Trail. As stated in the discussion under **Impact AES-2**, the Trail would not be visible from SR 1 nor would it be possible to see it from the beach, due to topography and intervening transportation

infrastructure. The Trail would be visible to travelers on Divarty Street and from some places on the CSUMB campus, including 2nd Avenue, where the alignment crosses. Existing quality is low, as the open undercrossing at the dead end of Divarty Street, under SR 1 is highly marked by unsanctioned artwork (**Figure 4.1-6**). Viewer sensitivity from the trail is high as expectations are for views to the ocean and of surrounding natural resources. However, the unmaintained, industrial character of the undercrossing and the street on the east side of SR 1 is of low visual quality that would benefit from project implementation, in all likelihood. As the alignment would continue through the undeveloped portion of former Fort Ord, it would not be visible in large part.

In the southern part of the National Monument segment, **KVP 5** is from the perspective of General Jim Moore Boulevard looking toward the dunes where the Trail would be implemented east of the roadway. The low profile of the Trail would ensure it would not be visible from this location for the extent from just south of Coe Avenue to San Pablo Avenue, where the alignment would transition away from General Jim Moore Boulevard and continue into the undeveloped open space to the east (**Figure 4.1-5**, see also **Figure 2-10** in **Section 2, Project Description**, for an overview of the exact project corridor in this area). In places where the Trail would connect with General Jim Moore Boulevard, the facilities would be in keeping with existing pedestrian and bicycle facilities on that roadway. FORTAG would not degrade the visual quality in those areas. There would be no impact to this and the rest of the National Monument Loop segment.

KVP 6 represents the place where the Trail corridor would coincide with Angelus Way through a residential neighborhood in the City of Del Rey Oaks, in the Canyon Del Rey/SR 218 segment. Because there are no sidewalks in this area, the proposed project would require the addition of components that would change the visual character of the street. The quaint visual aspects of **KVP 6** would give way to a more formal, recreational facility with safety features and signage. Directional signage would comply with the Federal Highway Administration's requirements (see **Section 4.14, Transportation**), and striping and other signage would be implemented in roadways where the Trail intersects with existing streets and be subject to the design criteria discussed below. Amenities would be limited, but where they do occur they would be subject to **Mitigation Measure AES-3**.

Wayfinding and interpretive signage would occur periodically throughout the alignment to direct Trail users and to relate information about local history and biological resources. These would need to comply with the Transportation Agency for Monterey County Bike & Pedestrian Wayfinding Sign Design, using materials and finishes that blend in with the landscape (TAMC 2016). Throughout the alignment, FORTAG would include amenities such as rest areas, benches, and shade structures. These would be located in places along the Trail that offer views of the area. Because they would focus Trail users on the beauty of the natural landscape, they would necessarily be situated in places with expansive views, where possible. Parking facilities would not be expanded from those currently in place, but new trash receptacles and dog waste bag dispensers would be included. Amenity design would need to adhere to the parameters of local community design guidelines and, where these are not in place, with **Mitigation Measure AES-3**.

Overall, the Trail would be located in open space areas that would not be visible in the urban/suburban developed areas of the project corridor. In the rural areas, project implementation would result in only minor changes to the landscape that would not substantially degrade the visual character or quality in those areas. Some components have the potential to contrast strikingly with the existing landscape (e.g., overcrossings, signage, trash receptacles). Elsewhere, implementation of bike facilities in some developed areas could alter the aesthetic nature of the area in such a way that the overall visual character would be impacted. That is to say, FORTAG would alter the visual character of the immediate surrounding from open space or rural character community to spaces

with new active transportation infrastructure, signage, and amenities such as trash receptacles, benches, and interpretive/educational components. In some KVPs (Beach Road, General Jim Moore, for example), the change would be in keeping with the overall character of the area. In others, such as at the places off or near Reservation Road discussed under **KVP 2**, project implementation could have a more substantial effect, arguably degrading a natural or built environment. For safety purposes, signage would be required to comply with FHWA's guidelines (see **Section 4.14, Transportation**) and would comply with the Transportation Agency's guidelines (TAMC 2016). To ensure amenities create a limited impact to the visual environment, adherence with **Mitigation Measure AES-3** would also be necessary.

Most planning jurisdictions in the project corridor support active transportation and increased connectivity including pedestrian and bicycle transportation, with provisions that the designs be attractive and retain the beauty of the natural landscape (see **Section 4.1.2, Regulatory Setting**, Monterey County 2010; City of Marina 2010; City of Seaside 2004, 2019a, 2019b; City of Del Rey Oaks 1997). Some jurisdictions and agencies offer specific design guidance (e.g., Marina, TAMC) and others do not. FORTAG implementation would be within the parameters of existing planning policies and zoning codes for all jurisdictions, where those plans and codes address aesthetics and visual quality. In jurisdictions where design guidelines and review are in place, adherence to applicable standards would ensure there would be no impact to zoning or other regulations concerning scenic quality. If design guidelines are not in place or do not apply to this project, implementation of **Mitigation Measures AES-1** and **AES-3** would reduce the effects of FORTAG on developed and undeveloped areas to less than significant with mitigation.

Mitigation Measures

AES-1 Design Structures to be Visually Unobtrusive

Mitigation Measure AES-1 text is included under Impact **AES-1** above.

AES-3 Amenity Design

Trail amenities such as kiosks, shade structures, and other ancillary structures shall be designed to be compatible with the natural environment or surrounding community character. Reflective and glare-producing materials shall be prohibited, and muted finishes encouraged. The color and texture of armoring materials shall be visually compatible with the appearance of the surrounding area. These design features shall be included in the final plan set prior to the initiation of construction for each Trail segment, and shall be approved by the implementing entity prior to permit approval.

Significance After Mitigation

Impacts would be less than significant with mitigation.

Threshold 4: Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Impact AES-4 POTENTIAL NEW LIGHTING IN SOME FORTAG SEGMENTS WOULD NOT SUBSTANTIALLY ADVERSELY AFFECT NIGHTTIME VIEWS OR CREATE GLARE HAZARDS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Under most conditions, sources of light include stationary fixtures and mobile vehicles (headlights). Sources of glare come from the reflection of sunlight on the windshields of parked cars, building windows, and mirrored surfaces.

Existing light sources are from existing development in developed areas and from vehicular traffic on existing roadways. In undeveloped areas, such as in the Northern Loop segment and the Ryan Ranch segment, there is little or no lighting in place. Lighting would be provided for some sections of FORTAG as follows:

- New undercrossings
- New overcrossings
- At-grade road crossings, where needed for safety
- Other locations, where necessary for safety and to aid in crime prevention

There would be minimal or no lighting in open space areas, but if lighting is needed in any areas for public safety, they would be designed to minimize impacts to wildlife and the natural setting. A glow-in-the-dark trail surface may be considered in some locations to alleviate the need for night lighting. All light fixtures would be solar-powered and adapt to ambient light conditions and time of day: lights would be brighter at dusk, gradually dim by midnight, and then brighter again at dawn. This would facilitate Trail users but minimize disturbance late at night to the views of the sky. Near the Marina Municipal Airport, any lighting would be bollard-height only, in keeping with federal standards (U.S. Department of Labor 2002).

These minor light sources along the Trail would have a minimal effect on existing lighting conditions in the rural vicinity and none in the developed (urban/suburban landscape unit), which already includes numerous lighting sources associated with existing uses. In undeveloped areas, even low lighting could appear significant and to minimize impact, FORTAG would need to comply with **Mitigation Measure AES-4** to limit the impact to open spaces with minimal or no human-sourced light.

Because it is a pedestrian and bicycle trail and because amenities would be designed to blend with the landscape, project implementation would not introduce any design features that would be sources of glare. Increased use of some areas by trail visitors, however, could incrementally increase glare from car windows and headlights. Nevertheless, the increase would be incremental and would not create a significant impact. Although the windows and metal on construction equipment during construction could also increase glare, this effect would be of short duration and, thus, have minimal effect. Therefore, with implementation of **Mitigation Measure AES-4**, the project would have a less than significant impact related to light and glare.

Mitigation Measure

AES-4 Install Dark Sky-Compliant Lighting Prior to Operation

The project shall employ dark sky-compliant lighting for all Trail lighting, except where the Trail crosses existing roadways and shielded safety lighting is necessary to eliminate conflict zones with vehicles. This style of lighting minimizes the release of light upwards into the atmosphere or outward past the Trail alignment, in part, with full cut-off luminaires.

Significance After Mitigation

This impact would be less than significant with mitigation.

4.1.7 Cumulative Impact Analysis

A project's environmental impacts are "cumulatively considerable" if the "incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" (CEQA Guidelines Section 15065(a)(3)). The geographic scope for cumulative aesthetics impacts includes development close to the project corridor. This geographic scope is appropriate for aesthetics because intervening topography and buildings limit the extent of views of scenic areas; and lighting and glare generally affects adjacent properties. Adjacent development considered part of the cumulative analysis includes buildout of the general plans in the cities Marina, Seaside, and on FORA lands. Cumulative impacts to the aesthetics of the project corridor and its surroundings would derive from visible changes envisioned under the various planning document and growth and development of surrounding areas in specific development proposals encompassed by all of the proposed and future projects in the project corridor vicinity. Among the many projects planned for the area, those immediately adjacent to the project corridor include the following, from north to south:

- Marina Station adjacent to the Northern Marina segment.
- Cypress Knolls, Sea Haven, and The Dunes on Monterey Bay projects adjacent to the CSUMB Loop North segment.
- Seaside East and the Central Coast Veterans Cemetery adjacent to the National Monument Loop segment.
- FORA Business Park adjacent to the Ryan Ranch segment
- East Garrison and Northeast-Southwest Arterial Connector Project adjacent to the Northern Loop segment.

The larger plan area includes some scenic vistas that would be altered by cumulative buildout of the combined planning documents for all jurisdictions. Throughout the project corridor and the cumulative planning area, these vistas could be impacted by the construction of new buildings and infrastructure. This could result in significant changes to the visual character of the area, although in many cases the impacts would be beneficial as they would update aging infrastructure and remove derelict buildings. As the FORA Base Reuse Plan is implemented views may change to include businesses, hotels, gateways, and residences in areas along General Jim Moore Boulevard and in Ryan Ranch Business Park (FORA 2019). This type of development would have a higher degree of impact on scenic vistas in the area, and may result in a significant cumulative impact. The proposed Trail, with its mostly flat profile and limited amenities, signage, and lighting, would not contribute considerably to a significant cumulative scenic vista impact.

As discussed under **Impact AES-2**, the proposed project would have no effect on resources within a scenic highway. Since SR 1 is not designated but only eligible for designation as a scenic highway, and because development on the west side of SR 1 is limited by planning policies, including FORA's Highway 1 Design Corridor Design Guidelines (FORA 2005), cumulative development would not result in a significant impact to scenic resources in that area. Elsewhere, cumulative development may impact SR 68 and other scenic roadways, but with appropriate mitigation, resources would be protected and the impact would be less than significant. Furthermore, cumulative development would have the potential for a higher degree of impact on scenic vistas than the Trail, as FORTAG would have a mostly flat profile and limited amenities, signage, and lighting. Consequently, FORTAG would not have a cumulatively considerable contribution to impacts on scenic resources in designated state scenic highways.

The Trail would contribute in a limited way to changes in the visual character of the area, described under **Impact AES-3**. Cumulative projects near the Trail would create cumulative physical changes that would convert areas with natural features to development that is more urban/suburban or institutional in nature. However, development projects are required to comply with the design standards established in jurisdictional regulations (described in **Section 4.1.2, Regulatory Setting**), and with those set forth in applicable general plans and specific plans. Development projects proposed on the CSUMB campus are also required to comply with the goals and policies of the CSUMB Draft Comprehensive Master Plan, including architectural and landscape design themes (CSUMB 2017). Compliance with planning and design standards and themes would limit impacts to visual character impacts of future cumulative development to some extent, but buildout of cumulative projects could result in potentially significant cumulative image. FORTAG would make a limited contribution to these changes, in the form of the street-level paved trail, over and under crossings, retaining walls, interpretive features, and amenities like benches or trash receptacles. The project would not result in a cumulatively considerable contribution to a significant cumulative impact to visual character and quality.

Cumulative development would introduce new light and glare sources in the vicinity of the Trail, but such development projects are required to comply with local plans, policies, and regulations that minimize the effects of light and glare on surrounding properties. Compliance with these existing requirements would minimize the light and glare impacts of individual projects, such that the cumulative impact of increased light and glare would not be significant. As discussed above under **Impact AES-4**, FORTAG would minimize the effect of new lighting on nighttime ambient light levels through installation of low-light fixtures and trail materials. No structures that would contribute to glare would be constructed and additional cars parked at Trail entrances would there for a limited time, with a minimal effect to surrounding properties. FORTAG would not make a cumulatively considerable contribution to a significant cumulative impact from increased light and glare.

In conclusion, FORTAG would not have a significant adverse impact on the aesthetics resources of the project corridor and its surroundings, with implementation of the standards and guidelines of local and regional planning documents and regulations. The combination of enforcement of existing design guidelines outside of the project corridor and implementation of mitigation described above, would together serve to ensure aesthetic impacts of cumulative development are less than significant. Therefore, FORTAG would not result in a cumulatively considerable contribution to a significant cumulative impact associated with aesthetics and visual resources.

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4.2 Agriculture and Forestry Resources

This section evaluates impacts on agriculture and forestry resources from implementation of the proposed FORTAG project. It discusses the environmental and regulatory setting, potential impacts, and mitigation measures identified to reduce potentially significant effects.

4.2.1 Existing Conditions

Agricultural Resources

Overview of Agriculture in Monterey County

Agriculture has historically played an important role in Monterey County, and continues to be a major economic sector. In 2018, the gross value of agricultural commodities grown in the County totaled \$4.258 billion (Monterey County Agricultural Commissioner 2018). The top three crops in the County in 2018, by revenue, were leaf lettuce, strawberries, and head lettuce. Agricultural production in the County is varied, including major production value from vegetable crops (\$2.87 billion), fruit and nuts (\$1.04 billion), nursery crops (\$204 million), and livestock and poultry (\$111 million). In 2014, agricultural activities directly and indirectly provided 76,054 jobs, including 55,702 direct employees, or 23.7 percent of all jobs in the County (Monterey County Agricultural Commissioner 2015).

The California Department of Conservation (DOC) identifies and designates Important Farmlands throughout the state as part of its Farmland Mapping and Monitoring Program (FMMP). The FMMP rating system classifies farmland according to the following criteria:

- **Prime Farmland.** Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. These are Class I and Class II soils
- **Farmland of Statewide Importance.** Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date
- **Unique Farmland.** Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climactic zones in California
- **Farmland of Local Importance.** Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee
- **Grazing Land.** Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres
- **Urban and Built-Up Land.** Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes

- **Other Land.** Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas, not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land (DOC 2019a)

“Important Farmland” includes those areas designated as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland under the FMMP. FMMP In total, Monterey County has approximately 165,517 acres of Prime Farmland, 44,508 acres of Farmland of Statewide Importance, and 26,355 acres of Unique Farmland (DOC 2019b).

Project Corridor Agriculture

EXISTING FARMLAND

The majority of the approximately 28 mile long project corridor is not in the vicinity of active agricultural operations. No agricultural activity occurs in the cities of Del Rey Oaks, Monterey, or Seaside. East of the City of Marina towards the City of Salinas and north of Marina towards the community of Moss Landing, intensive row crop agriculture is the dominant land use. Along portions of the Northern Loop segment and Northern Marina segment, the Trail would run alongside some parcels used for grazing and crop production, including land classified as Important Farmland.

Figure 4.2-1 depicts FMMP classifications in and near the project corridor and **Table 4-2.1** shows the acreage of each FMMP classification within the project corridor, including all design options, and throughout the study area. As shown therein, there is 0.81 acre of Important Farmland within the project corridor and 8.13 acres of Important Farmland within the study area. All of the Important Farmland is within the Northern Loop and Northern Marina segments in unincorporated Monterey County.

FARM INFRASTRUCTURE

Farm infrastructure typically includes irrigation and drainage systems, farm access roads that often surround farmed parcels, storage structures such as silos and barns, power distribution systems, and residences. As noted in **Section 2, Project Description**, multiple alignments are being considered in the Northern Marina segment. It is likely that stretches of the Trail in this segment as well as the Northern Loop segment would run in close proximity to farm infrastructure, particularly irrigation and drainage systems, power distribution systems, and farm access roads.

PESTICIDE USE

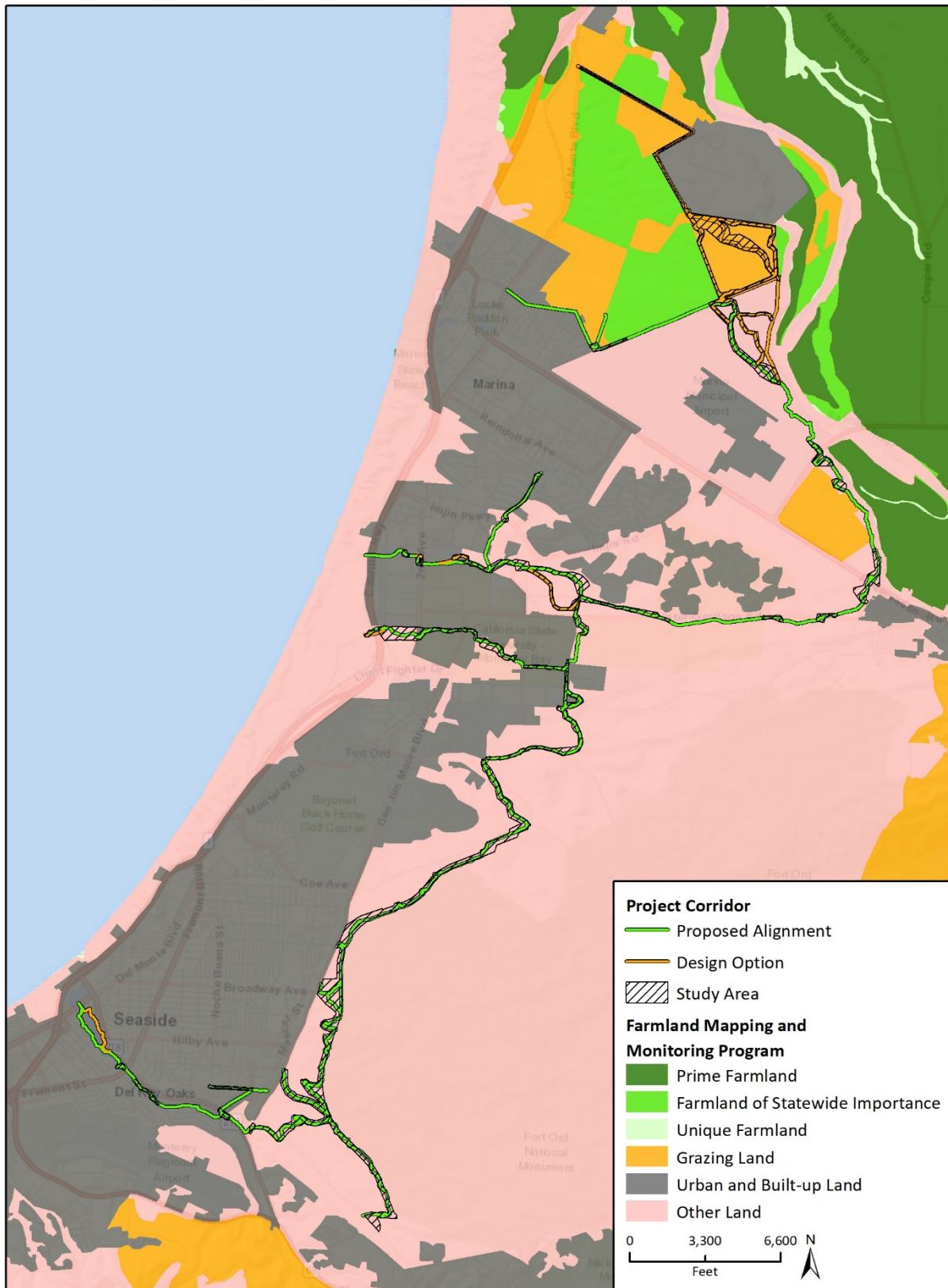
Pesticides are an important component of integrated pest management programs used by agricultural operations. The term pesticide covers a wide range of compounds including insecticides, fungicides, herbicides, rodenticides, plant growth regulators, and others. Pesticides are used to control weeds, insects, and plant pathogens. In addition, herbicides reduce the amount of labor, machinery, and fuel used for mechanical weed control.

Pesticide Use Records (PUR) for Monterey County from 2018 were obtained from the Agricultural Commissioner’s office (Monterey County Agricultural Commissioner 2019a). These records show that pesticides were applied 541,957 times in 2018 throughout the County. Approximately 43 percent of these applications occurred during the three-month period of July, August, and September, and approximately 76 percent of applications occurred between May and October.

Table 4-2.1 FORTAG FMMP Designations

FMMP Designation	Acres																
	Northern Loop		Northern Marina		CSUMB Loop North		CSUMB Loop South		National Monument Loop		Canyon Del Rey/SR 218		Ryan Ranch		Total		
	Project Corridor	Study Area	Project Corridor	Study Area	Project Corridor	Study Area	Project Corridor	Study Area	Project Corridor	Study Area	Project Corridor	Study Area	Project Corridor	Study Area	Project Corridor	Study Area	
Prime Farmland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Farmland of Statewide Importance	0.0	0.0	0.81	8.13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.81	8.13
Unique Farmland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Important Farmland Total	0.0	0.0	0.81	8.13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.81	8.13
Grazing Land	0.32	1.09	9.73	94.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.04	95.14
Urban and Built-up Land	0.0	0.0	2.85	5.92	3.83	18.72	2.43	21.25	0.99	8.20	6.35	15.19	0.0	0.0	16.45	69.28	
Other Land	12.36	96.66	6.85	30.96	4.07	47.62	3.12	40.09	14.41	203.36	2.45	26.82	2.77	34.45	46.02	479.95	

Figure 4.2-1 FORTAG FMMP Designations



Imagery provided by ESRI and its licensors © 2019. Additional data provided by Alta Planning + Design, 2019.
 Farmland data provided by California Department of Conservation, 2016.

Fig 4.2-1 FMMP Designations

Approximately 84 percent of applications were ground applications, approximately 17 percent were air applications, and less than one percent were fumigant applications. The Monterey County PUR is divided into five districts; the study area is within the Monterey Peninsula district, in which pesticides were applied 1,142 times. No fumigants were used in the Monterey Peninsula district.

Fumigation applications involve an injection of pesticide gas or vapor into the soil. Fumigants used in Monterey County in 2018 included Tri-Chlor Fumigant, Tri-Chlor EC Fumigant, Tri-Form 80, K-Pam HL, and Telone II. These products are restricted-use chemicals, with warnings and restrictions to protect human health. Exposure to pesticides can present human health risks. Pesticide exposure occurs through ingestion, inhalation, and dermal contact.

Volatilization is the process in which a substance evaporates and disperses in vapor. Pesticide volatilization, or pesticide drift, is the movement of pesticide vapors through air. The extent of volatilization that occurs following application of a pesticide is influenced by the properties of the pesticide, the properties of the soil, meteorological conditions, and agricultural methods (USEPA 2017).

Pesticide drift can transfer pesticides off-site as droplets, dust, or vapors, leading to accidental exposure to people, animals, plants, and property. The National Pesticide Information Center recommends avoiding pesticide application while there is fog hanging in the air (National Pesticide Information Center 2017). Fog conditions are conducive to pesticide drift, as vapor with pesticide can move offsite like fog or with fog and be deposited offsite (Enz et al. 2019).

Forestry Resources

Overview of Forestry Resources in Monterey County

Monterey County contains expansive forested areas, particularly along the coast in the southern portion of the County, in the Big Sur region and Los Padres National Forest. Major protected areas in the County with forestry resources include Los Padres National Forest, Fort Ord National Monument, Pinnacles National Park, and Palo Corona Regional Park.

Forestry resources include forest land, timberland, and timberland production zones. Definitions used for these terms are those found in the California Public Resources Code (PRC) §§12220(g) and 4789.2(g) and California Government Code (CGC) §51104(g). These codes define forestland, timberland, and timberland production zones as follows:

- **Forest Land.** Forest land is land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits (PRC §12220(g)).
- **Timberland.** Timberland means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species are determined by the board on a district basis. (PRC §4526).
- **Timberland Production Zones.** Timberland production zones or “TPZ” means an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h) (CGC §51104).

Timber harvest in California is generally (over 99 percent) from the following species: True firs, Douglas-fir, Ponderosa pine, Redwood, Sugar pine, Incense-cedar, other softwoods (lodgepole pine, spruces, and other coniferous species), Western hemlock, and Western hemlock (USDA 2012).

Project Corridor Forestry Resources

FORTAG would traverse a variety of landscapes, including some forested areas. The study area does not include land zoned for timberland or timberland production zones, but does contain forest land (**Appendix C**).

The Ryan Ranch segment and the Northern Marina segment do not contain forestry resources. Portions of the Canyon Del Rey/SR 218 segment, National Monument Loop segment, CSUMB Loop segment (South), and Northern Loop segment contain land that qualifies as forest land, based on support of ten percent native tree cover that allows for management of forest resources.

4.2.2 Regulatory Setting

Agricultural Resources

Federal

There are numerous federal regulations outlining the responsibilities of agricultural producers to ensure food safety. The Code of Federal Regulations Title 21 Part 112 outlines the standards for growing, harvesting, packing, and holding produce for human consumption. Key relevant provisions include the requirement that producers take appropriate measures to minimize the risk of serious adverse health consequences or death from the use of, or exposure to, produce (Section 112.11); that operators make visitors aware of policies and procedures to protect produce and food contact surfaces from contamination by people and take all steps reasonably necessary to ensure that visitors comply with such policies and procedures, and make toilet and hand-washing facilities accessible to visitors (Section 112.33); and that operators provide personnel with adequate, readily accessible toilet facilities, including those readily accessible to growing areas during harvest activities, and that toilet facilities be designed, located, and maintained to prevent contamination of covered produce, food contact surfaces, and water distribution systems (Section 112.129)(Office of the Federal Register 2019).

State

FARMLAND MAPPING AND MONITORING PROGRAM

The DOC's DOCFMMP monitors conversion of the state's farmland to and from agricultural use. County-level data is collected, and a series of maps are prepared that identify eight classifications and uses based on a minimum mapping unit size of 10 acres. The program also produces a biennial report on the amount of land converted from agricultural to non-agricultural use. The program maintains an inventory of state agricultural land and updates the Important Farmland Series Maps every two years. The FMMP is an informational service only and does not constitute state regulation of local land use decisions.

Under the FMMP, agricultural land is rated according to several variables, including soil quality and irrigation status, with Prime Farmland being considered the most optimal for farming practices. The FMMP classifications are described further in Section 4.2.1, *Existing Conditions*, above. **Figure 4.2-1**

depicts Important Farmland near the project corridor, and **Table 4-2.1** lists the acreage of each FFMP designation within the project corridor and the study area.

CALIFORNIA LAND CONSERVATION ACT OF 1965 (WILLIAMSON ACT)

The California Land Conservation Act of 1965—commonly referred to as the Williamson Act—enables local governments to enter into contracts with private landowners to restrict specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments that are much lower than normal because they are based upon farming and open space uses as opposed to full market value of the land. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971. Participation in this program is voluntary, requiring 100 contiguous acres of agricultural land under one or more ownerships to file an application for agricultural preserve status. After an agricultural preserve has been established, the land in the preserve is automatically restricted to agricultural and agriculturally compatible uses, and the landowners may enter into a Williamson Act land use contract. The land may also be subject to agricultural rezoning. Williamson Act contracts have a minimum term of ten years. Williamson Act lands also include those under Farmland Security Zone contracts, which offer greater property tax reduction in exchange for a longer term of 20 years.

After a contract has expired, the landowners may remove the subject property from an agricultural preserve. Prior to the expiration of a contract, a landowner also has the option to petition to cancel the contract. Contract cancellation requires the landowner to pay a substantial fee as outlined in the California Government Code §§ 51280-51287.

There are 778,417 acres under Williamson Act contracts in Monterey County (Monterey County 2014), most of which are located in the eastern and southern parts of the County. **Figure 4.2-2** depicts land under Williamson Act contracts near the project corridor. As shown therein, Williamson Act lands in the vicinity of the project corridor include Farmland Security Zones adjacent to the east of a portion of the Northern Loop segment, and adjacent to the north of a portion of the Northern Marina segment.

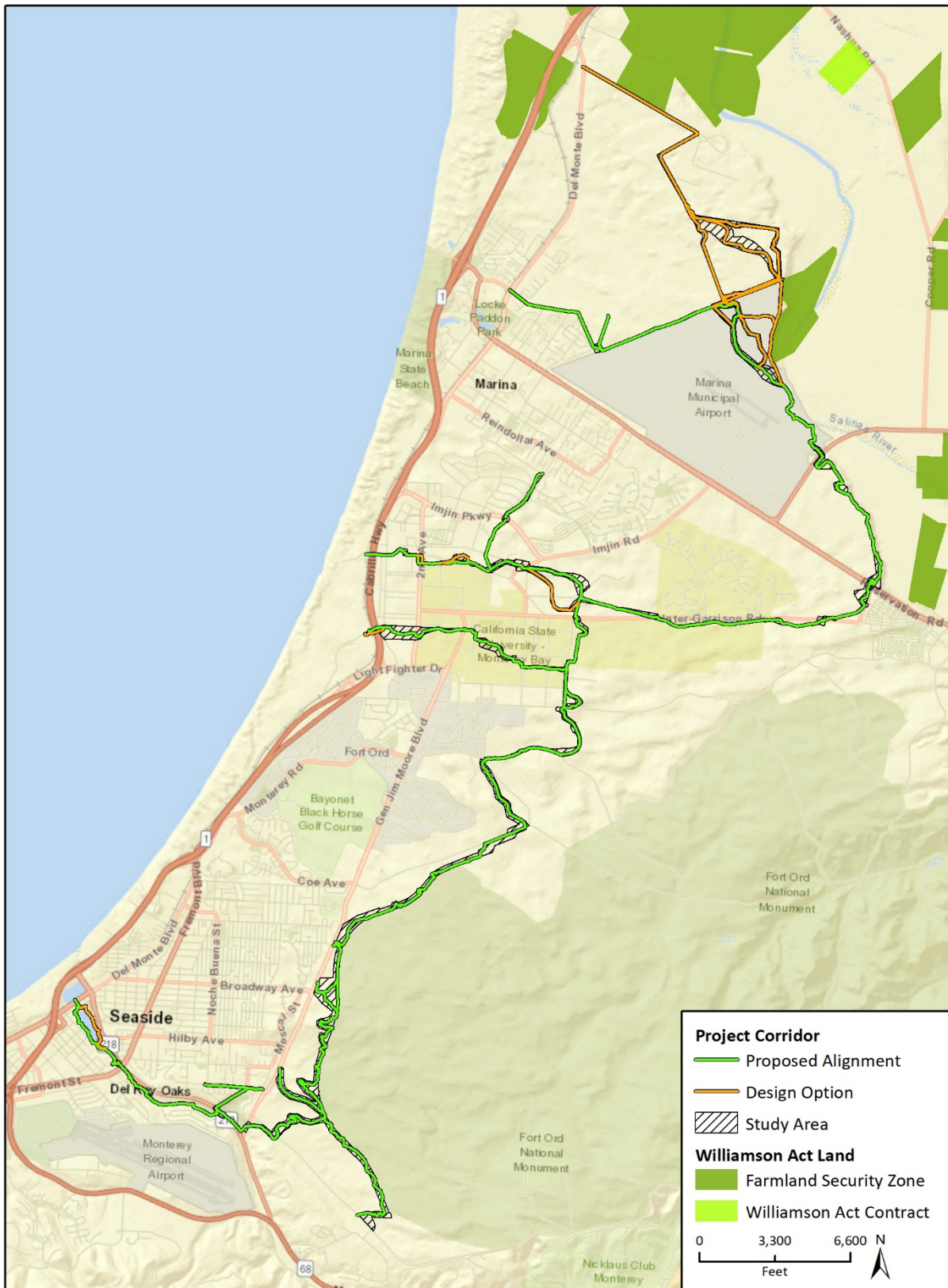
CALIFORNIA RIGHT TO FARM ACT

The California Right to Farm Act (California Civil Code Section 3482.5) details that a farming activity cannot be a public nuisance if all of the following factors are met:

- The activity is in support of the production of an agricultural commodity
- The agricultural activity is commercial in nature
- The activity is conducted “in a manner consistent with proper and accepted customs and standards as established and followed by similar agricultural operations in the same locality”
- The farming activity must have been in operation for at least three years
- The farming activity was not a nuisance at the time it began

The California Right to Farm Act does not require best management practices; rather it allows adherence to accepted customs and practices. In addition, the statute specifically states that the Act prevails over any contrary provision of a city or county ordinance or regulation, but does allow cities and counties to require disclosures be given to prospective home buyers that a dwelling is situated in or near an agricultural operation.

Figure 4.2-2 FORTAG Williamson Act Contracts



Imagery provided by ESRI and its licensors © 2019. Additional data provided by Alta Planning + Design, 2019.
 Williamson Act data provided by County of Monterey, 2014.

Fig. 4.2 Williamson Act Contracts

PESTICIDE APPLICATION

The California Department of Pesticide Regulation (DPR) is charged with protecting human health and the environment by regulating pesticide sales and use, and by fostering reduce-risk pest management. DPR regulates pesticides under a comprehensive program that encompasses enforcement of pesticide use in agricultural and urban environments. DPR oversees a multi-tiered enforcement infrastructure and is vested by the U.S. Environmental Protection Agency with primary responsibility to enforce federal pesticide laws in California. DPR directs and oversees the County Agricultural Commissioner's office, which carries out and enforces pesticide and environmental laws and regulations locally, including enforcement for the Department of Consumer Affairs' Structural Pest Control Board. Many DPR programs stress a least-toxic approach to pest management and promote risk reduction through information, encouragement, incentives, and community-based problem solving (DPR 2013).

California Code of Regulations (CCR) Title 3 Section 6762(c) (Field Work during Pesticide Application) prohibits any person, other than the persons making the pesticide application, to enter or remain in a treated area of field during pesticide application. Furthermore, this section defines "exclusion zones" as follows:

- 1 If the pesticide is applied for outdoor production, the application exclusion zone is defined as the area surrounding the application equipment that must be free of all persons other than appropriately trained and equipped handlers during pesticide applications. The parameters of the application zone are as follows:
 - A The area that extends 100 feet horizontally from the application equipment in all directions during application when the pesticide is applied by any of the following methods: aerially; air blast; as a fumigant, smoke, mist, or fog; or as a fine spray using a spray.
 - B The area that extends 25 feet horizontally from the application equipment in all directions during application when the pesticide is applied in a manner not specified in (1)(A) and is sprayed from a height of greater than 12 inches from the soil or planting medium using at least a medium spray.
 - C There is no application exclusion zone when the pesticide is applied in a manner other than those in subsections (1)(A) and (1)(B).

The California Food and Agriculture Code requires documentation and reporting of pesticide use for agricultural and non-agricultural use. Section 12972 requires that the use of any pesticide by any person be in such a manner as to prevent substantial drift into non-target areas. Article 15 of the Pesticide Contamination Prevention Act sets rules and standards to prevent contamination from pesticides of groundwater, and includes specific provisions allowing the DPR to monitor groundwater contamination in rural agricultural areas.

Regional and Local

Listed below are regional regulations related to agricultural resources that are applicable to the proposed FORTAG project. Regulations are included from Monterey County and the City of Marina. The other jurisdictions that FORTAG traverses do not contain agricultural operations in the vicinity of the proposed alignment.

AGRICULTURAL COMMISSIONER'S OFFICE

The Monterey County Agricultural Commissioner serves as the primary local enforcement agency for State agricultural laws and regulations. The Agricultural Commissioner promotes agriculture, farm worker health and safety, protection of environmental resources, and assurance of a fair marketplace. Specific programs include plant quarantine and pest prevention, dissemination of bio-control agents, investigation of pesticide-related illness, and inspection of pesticide applications (Monterey County Agricultural Commissioner 2019b).

Monterey County

MONTEREY COUNTY GENERAL PLAN

The Agriculture Element of the Monterey County General Plan includes goals and policies to protect agricultural resources. Key agricultural policies pertinent to the project are listed below:

- **Policy AG-1.1.** Land uses that would interfere with routine and ongoing agricultural operations on viable farmlands designated as Prime, of Statewide Importance, Unique, or of Local Importance shall be prohibited.
- **Policy AG-1.1.** The County shall require that well-defined buffer areas be provided as partial mitigation for new non-agricultural development proposals that are located adjacent to agricultural land uses on farm lands designated as Prime, of Statewide Importance, Unique, or Local Importance.
 - a. Criteria. The following criteria shall be used to establish agricultural buffers to protect current and reasonably foreseeable future agricultural operations:
 1. The type of non-agricultural use proposed, site conditions, and anticipated agricultural practices.
 2. Weather patterns, crop type, machinery and pesticide use, existence of topographical features, trees and shrubs, and possible development of landscape berms to separate the non-agricultural use from the existing agricultural use.
 - b. Buffers. Buffers and or/easements shall be:
 1. Designated to comply with applicable state and local laws regulating school buffers, pesticide buffers, and other controls.
 2. Provided on the land designated for the proposed new use and not on the adjacent agricultural land unless by mutual agreement between the two landowners. Buffer maintenance will be the responsibility of the underlying fee title owner and shall be enforceable by the County of Monterey.
 3. Designed to be used for the purposes and manner described in this policy and for no other purposes unless agreed to by abutting landowners. Drainage, shading, vegetation, and erosion control shall be made beneficial to the adjacent agricultural use.

In circumstances in which a buffer is not meant to be permanent, it will be terminated once the underlying agricultural purpose for the buffer no longer exists. The Agricultural Advisory Committee shall review and make recommendations on establishment of, and changes to, buffer zones.

- **Policy AG-1.8.** Development projects on lands designated for agricultural use that require a discretionary permit shall be referred to the County's Agricultural Advisory Committee for their review and recommendation to the decision-making body.

- **Policy AG-1.9.** Agricultural operations in accord with all applicable laws and regulations and consistent with properly accepted customs and practices shall be given increased protection from nuisance claims through strengthening the County’s “Right-to-Farm” ordinance. Said ordinance shall establish the strongest, most effective possible noticing requirements to make property owners located near agricultural operations aware of potential conditions that are accepted practices within Monterey County.
- **Policy AG-6.1.** Improvement of regional transportation systems to support the needs of the agricultural industry shall be encouraged and supported.

MONTEREY COUNTY CODE

Chapter 16.40 (Protection of Agricultural Activities) of the Monterey County Code is intended to promote the long-term protection, conservation, and enhancement of productive and potentially productive agricultural land and to minimize potential conflict between agricultural and non-agricultural land uses within the County. Accordingly, Section 16.40.030 specifies that no agricultural operation, farm operation, or agricultural activity, facility, or appurtenance thereof, conducted or maintained for commercial purposes, and in a manner consistent with property and accepted customs and standards, as established and followed by similar agricultural operations in the same locality, shall be or become a nuisance, private or public, due to any changed condition in or about the locality, after the same has been in operation for more than three years if it was not a nuisance at the time it began.

MONTEREY COUNTY ZONING REGULATIONS

Monterey County’s Zoning Ordinance identifies specific zoning districts in the County and development standards that apply to each district. The County’s zoning districts that may include agricultural land use include Agricultural Industrial (AI), Farmlands (F), Rural Grazing (RG), Permanent Grazing (PG), and Public/Quasi-Public (PQP).

Zoning designations near the project corridor are shown in Figure 4.11-2 in **Section 4.11, Land Use and Planning**. Monterey County land near the project corridor with agricultural operations includes land zoned as PQP, PG, and F.

City of Marina

MARINA GENERAL PLAN

The Community Land Use Element of the Marina General Plan includes goals and policies to protect agricultural resources and operations. Key agricultural goals policies pertinent to the project are listed below:

- **Community Land Use Policy 4.** Wherever possible, lands with significant agricultural, natural habitat, or scenic value shall be retained and protected from degradation.
- **Community Land Use Policy 2.11.** A 1,250-acre band of land along the southwest side of the Salinas River contains mostly prime agricultural soils- that is, soils classified as Class I and II and currently in agricultural production. These unincorporated lands are designated as Agriculture Reserve in order to support long-term agricultural uses.

MARINA ZONING REGULATIONS

Marina’s Zoning Ordinance identifies specific zoning districts in the City and development standards that apply to each district. The City’s zoning districts that may include agricultural land use include Agricultural-Residential (K), Special Treatment (ST), and Limited Agricultural Uses Combining District (A).

As shown in Figure 4.11-2, the Trail would not run through or adjacent to any agricultural land in Marina.

Forestry Resources

State

FOREST PRACTICE ACT OF 1973

CAL FIRE enforces the laws that regulate logging on privately owned lands in California under the Forest Practice Act. The Forest Practice Act is enforced by PRC §§4511 et seq., where PRC 4513(b) states “the goal of maximum sustained production of high-quality timber products is achieved while giving consideration to values related to sequestration of carbon dioxide, recreation, watersheds, wildlife, range and forage, fisheries, regional economic viability, employment, and aesthetic enjoyment.”

Under the Forest Practice Act, timber operations may only be conducted pursuant to an approved Timber Harvesting Plan (THP). A THP is the environmental review document, prepared by a Registered Professional Forester, submitted by landowners to CAL FIRE outlining the timber they want to harvest, how it will be harvested, and the steps that will be taken to prevent damage to the environment (CAL FIRE 2012). Because a THP is the functional equivalent to an EIR for tree removal activities, the approval of a THP could depend on the inclusion of required mitigation.

A landowner that proposes to carry out a project that will result in timberland being converted to a non-timber growing use must apply for either a TCP or a notice of exemption. Grounds for exemption include conversions of less than three acres, conversions to construct or maintain a right-of-way by a public agency or a public or private utility, and development of subdivisions on forest land where approved by local government. When a TCP is issued, restocking of the timber resources is not required, as the land is converted to a non-timber growing use.

Because the project does not involve timber operations, THP and TCP requirements are not applicable.

Local

TREE PROTECTION REGULATIONS

Table 4-2.2 below lists tree protection regulations from the municipal codes of the FORTAG jurisdictions.

Table 4-2.2 Tree Protection Policy Summary

Source	Goal/Policy Text
Monterey County	
<p>Monterey County Code of Ordinances Chapter 21.64.260: Preservation of oak and other protected trees</p>	<p>C(1). No oak or madrone tree six inches or more in diameter two feet above ground level shall be removed in the North County Area Plan or Toro Area Plan areas without approval of the permit(s) required in Subsection 21.64.240D.</p> <p>C(4). No oak tree six inches or more in diameter two feet above ground level may be removed in any other area of the County of Monterey designated in the applicable area plan as Resource Conservation, Residential, Commercial or Industrial (except Industrial, Mineral Extraction) without approval of the permit(s) required in Subsection 21.64.240D.</p> <p>C(5). No landmark oak tree shall be removed in any area except as may be approved by the Director of Planning pursuant to Subsection 21.64.240D. Landmark oak trees are those which are 24 inches or more in diameter when measured two feet above the ground, or trees which are visually significant, historically significant, or exemplary of their species.</p> <p>C(6). No oak trees six inches or more in diameter two feet above ground two feet above ground level may be removed in any other area of the County of Monterey designated in the applicable area plan as Agricultural or Industrial, Mineral Extraction, unless such removal meets the purpose and standards required in Subsection 21.64.240E.</p> <p>D(1). Permit Required: No person shall do, cause, permit, aid, abet, suffer or furnish equipment or labor to remove, cut down or trim more than one-third of the green foliage of, poison or otherwise kill or destroy any tree as specified in this Section until a tree removal permit for the project has first been obtained.</p> <p>D(2). Removal of Three or Less Protected Trees: The Director of Planning may approve the removal of no more than three protected trees per lot in a one-year period.</p> <p>D(3)(a). Removal of More than Three Protected Trees: Removal of more than three protected trees on a lot in a one-year period shall require a Forest Management Plan and approval of a Use Permit by the Monterey County Planning Commission.</p>
City of Marina	
<p>Marina Municipal Code Chapter 17.51.030: Unlawful actions upon trees</p>	<p>Unless otherwise exempted, it is unlawful for any person to:</p> <p>A: Remove, damage or relocate or cause to be removed, damaged or relocated any tree within the city without first obtaining a tree removal permit following the provisions of Section 17.04.060, unless said removal, damage or relocation is exempted by Section 17.04.040 or 17.04.050.</p> <p>B: Conduct construction activities within the drip line of any tree unless these activities are conducted in compliance with tree protection guidelines adopted by resolution of the planning commission.</p>
City of Seaside	
<p>Seaside Municipal Code Section 8.54.030: Permit – Required for certain tree removal, alteration or planting</p>	<p>A. It is unlawful for any person to remove or alter any tree on private property in the city without a permit issued as provided in this chapter.</p> <p>B. It is unlawful to plant within the city any Coast Redwood, Blue Gum Eucalyptus, Willow, Cottonwood or Poplar, without a permit issued as provided in this chapter.</p>

Source	Goal/Policy Text
City of Monterey	
Monterey City Code Section 37-3: Cutting, pruning, damaging or removal of trees from public areas; permit required; view trimming	It shall be unlawful for any person to cut, prune, top, damage or remove, or cause to be cut, pruned, topped, damaged or removed, any tree or shrub in any City-owned park, green belt or other public area unless pursuant to a permit issued by the City Forester. In addition, any application for a permit to cut, prune, top or remove, or cause to be cut, pruned, topped or removed, any tree on public property for the purpose of view enhancement shall be required to demonstrate compliance with the conditions set forth in the City's view trimming guidelines, in addition to any other permit application requirements established by the City.
City of Del Rey Oaks	
Del Rey Oaks Code of Ordinances Section 9.05.090: Abuse or mutilation of trees, plants and lawn	Without first obtaining a permit from the City of Del Rey Oaks, it is unlawful for any person in any public place to damage, cut, carve, transplant or remove any tree or plant or injure the bark, or pick the flowers or seeds of any tree or plant.

Source: Monterey County 2019; City of Marina 2019; City of Seaside 2018; City of Monterey 2019; City of Del Rey Oaks 2019

ZONING

None of the jurisdictions that FORTAG would traverse contain land zoned specifically for forestry or timber production.

4.2.3 Methodology and Significance Thresholds

Methodology

This section describes the potential environmental impacts of the proposed FORTAG alignment as well as all of the FORTAG design options relevant to agriculture and forestry resources. The potential impacts to agricultural lands for the project were evaluated using both quantitative and qualitative methods. Geographic information systems (GIS) and ArcGIS software were used as tools to evaluate project impacts. Spatial data, including the DOC FMMP, was used to identify Important Farmland (i.e., Prime Farmland, Farmland of Statewide Importance, and Unique Farmland) for the study area. Monterey County and City of Marina zoning designations were also included in the spatial data analysis, since all agricultural land in the FORTAG corridor is located in these two segments.

Potential impacts to forestry resources were evaluated by reviewing the Biological Resources Assessment prepared for the project (**Appendix C**) as well as satellite imagery to determine where forestry resources exist within the project corridor. Potential impacts to forestry resources were assessed with consideration to protections afforded by local tree protection regulations as well as mitigating design features of the project.

Significance Thresholds

The significance thresholds used in this analysis are based on **Appendix G** of the *CEQA Guidelines*. For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use
2. Conflict with existing zoning for agricultural use, or a Williamson Act contract
3. 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))
4. Result in the loss of forest land or conversion of forest land to non-forest use
5. 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

Potential health and safety impacts resulting from pesticide drift and other pesticide applications are discussed in **Section 4.9, Hazards and Hazardous Materials**.

4.2.4 Project Impact Analysis

Threshold 1: Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Impact AG-1 THE PROJECT WOULD CONVERT IMPORTANT FARMLAND TO NON-AGRICULTURAL USE IF A DESIGN OPTION IS SELECTED FOR THE NORTHERN MARINA SEGMENT. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

The majority of the proposed FORTAG alignment is not located near active agriculture or areas designated as Important Farmland, as shown in **Figure 4.2-1** and summarized in **Table 4-2.1**.

Portions of the Northern Marina segment design option would be located in areas with Important Farmland, however.

To determine the potential for Important Farmland conversion as a result of the project, GIS layers were analyzed for overlay between land mapped as Important Farmland and the Trail's 16-foot wide footprint. A total of 0.81 acre of Important Farmland and Trail corridor overlap was found, all of which is designated as Farmland of Statewide Importance and is within the footprint of the northernmost design option of the Northern Marina segment, along Charles Benson Road. Therefore, this Important Farmland would only be converted to non-agricultural use if this alignment design option is selected; the proposed alignment in this area¹ does not contain Important Farmland. The project study area, which is analyzed as a larger transect to support avoidance of natural resources, includes a total of 8.13 acres of Important Farmland. Some of this acreage would be within study areas for design options. Not all design options would be included in the final project plans.

¹ As described in Section 2, *Project Description*, the proposed alignment for the Northern Marina segment would run along Beach Road, along the back side of residences, on publicly-held land adjacent to Estrella Del Mar Way and Quebrada Del Mar Road, and along the boundary of the Marina Municipal Airport Property.

Because the proposed alignment does not include any Important Farmland, it would not result in the conversion of Important Farmland to non-agricultural use. Therefore, the impact for the proposed project (without design options) would be less than significant.

Multiple alignment design options are being considered for the Northern Marina segment in the area north of the Marina Municipal Airport, as shown in **Figure 2-8** in **Section 2, Project Description**. If any of these design options are selected, they would extend west to the existing Coastal Rec Trail via the boundary of the Monterey Regional Waste Management District property and then along Charles Benson Road, approximately 1.9 miles north of Beach Road in Marina, which is the preferred connection to the Coastal Rec Trail. Because the alignment along Charles Benson Road would be utilized for any of the design options, and because this is the location of Important Farmland within the Trail footprint, any of the Northern Marina segment design options would result in the conversion of 0.81 acre of Important Farmland to non-agricultural use. This acreage calculation is based on the current alignment; however, the total acreage of Important Farmland within the study area is 8.13. The study area refers to an area far broader than the impact area that would result from development, and is analyzed in this EIR to allow for a construction buffer and flexibility at later stages of design. Therefore, not all 8.13 acres would be converted to non-agricultural use, but the precise acreage would depend on the final Trail alignment within the study area, if modified from what is analyzed herein.

The impact of converting Important Farmland to non-agricultural use would be potentially significant for design options in the Northern Marina segment. **Mitigation Measure AG-1** is required to offset these impacts, if any of the Northern Marina segment design options are selected. If the proposed alignment is selected, no mitigation is required.

Mitigation Measures

AG-1 Implement Agricultural Land Conservation Measures

Prior to issuance of grading permits for any of the Northern Marina segment alignment design options, the implementing entity shall provide that for every 1.0 acre of FMMP Important Farmland (Prime Farmland, Unique Farmland, and Farmland of Statewide Importance) that would be converted to non-agricultural use as a result of Trail development, 1.0 acre of land of comparable agricultural productivity shall be preserved in perpetuity. The 1:1 mitigation shall be satisfied through one of more of the following:

- a. Granting a perpetual conservation easement(s), deed restriction(s), or other farmland conservation mechanism(s) to Monterey County or another qualifying land management entity,² such as the Ag Land Trust, for the purpose of permanently preserving agricultural land. The required easement(s) area or deed restriction(s) shall total a minimum of 0.81 acre of FMMP Important Farmland, or as determined based on final design for the design option within the study area. The land covered by said off-site easement(s) or deed restriction(s) shall be located in Monterey County.
- b. Making an in-lieu payment to a qualifying entity, such as the Ag Land Trust, to be applied toward the future purchase of a minimum of 0.81 acre of FMMP Important Farmland in Monterey County, together with an endowment amount as may be required. The payment amount shall be determined by the qualifying entity or a licensed appraiser.

² A qualifying entity would be an incorporated land conservancy that has demonstrable ability to purchase, hold, and manage agricultural conservation easements and that possesses accreditation from the Land Trust Alliance.

- c. Making an in-lieu payment to a qualifying entity, such as the Ag Land Trust, to be applied toward a future perpetual conservation easement, deed restriction, or other farmland conservation mechanism to preserve a minimum of 0.81 acre of FMMP Important Farmland in Monterey County. The amount of the payment shall be equal to 110 percent of the amount determined by the qualifying entity or a licensed appraiser.

Mitigation Measure AG-1 is based on an Important Farmland conversion total that includes the currently identified design option footprint near Charles Benson Road. If the project plans are refined within the project's study area, the acreage included in the 1:1 mitigation may be adjusted accordingly, using the same calculation methodology as used in this analysis.

Significance After Mitigation

Impacts would be less than significant with mitigation.

Threshold 2: Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

Impact AG-2 THE PROJECT WOULD NOT CONFLICT WITH EXISTING ZONING FOR AGRICULTURAL USE OR A WILLIAMSON ACT CONTRACT. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

As shown in **Figure 4.11-2** in **Section 4.11, *Land Use and Planning***, the study area includes County land zoned PQP and PG. The study area does not include any land zoned specifically for agricultural use, other than grazing. The proposed alignment would be adjacent to agricultural land uses along certain segments, and, as described above, could result in a limited amount of conversion to non-agricultural use. However, this would occur, at most, along the perimeters of crop fields, and would not result in conversion of entire parcels. All portions of the proposed alignment and design options near agricultural use would utilize existing paths or roads. Because any change in land use would be minimal and limited to the edges of parcels, the project would not require rezoning or conflict with existing zoning for agricultural use.

As described in **Section 4.2.2, *Regulatory Setting***, and shown in in **Figure 4.2-2**, land under Williamson Act contracts exists in two locations near the proposed alignment: northeast of the Marina Municipal Airport, approximately 275 feet east of the proposed alignment; and to the north of Charles Benson Road, at a distance of approximately 100 feet from the Northern Marina segment design option, with buffering provided by Charles Benson Road and a line of trees. Because there is no Williamson Act land within the project corridor or study area, the project would not conflict with a Williamson Act contract. This impact would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

- Threshold 3:** 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))?
- Threshold 4:** Would the project result in the loss of forest land or conversion of forest land to non-forest use?
- Threshold 5:** Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use?

Impact AG-3 THE PROJECT WOULD NOT CONFLICT WITH ZONING FOR, OR CAUSE REZONING OF, FOREST LAND OR TIMBERLAND. SOME LOSS OF FOREST LAND COULD OCCUR, BUT COMPLIANCE WITH EXISTING REGULATIONS WOULD LIMIT IMPACTS TO A LESS THAN SIGNIFICANT LEVEL.

As shown in **Figure 4.11-2** in **Section 4.11**, *Land Use and Planning*, and described above under *Regulatory Setting*, there is no land zoned for forest or timber use within the study area. The project would not conflict with or cause rezoning of forest land or timber land.

Based on the Biological Resources Assessment prepared for the project (**Appendix C**) as well as a review of aerial imagery, most of the study area is not forested. The study area includes a variety of land uses and land cover types, including developed land, agriculture, landscaped land, and vegetation communities.

Table 4.2-3 below summarizes land cover types within the project corridor and the study area. Land cover types that can typically contain more than ten percent native tree cover are grouped as Forest Areas, while other land cover types are grouped as Non-forest Areas. Due to the project's large size, linear configuration, and varying land cover arrangement, it is not possible to prepare a precise estimation of tree coverage. However, **Table 4.2-3** presents a rough estimate for the purpose of analyzing the project's potential to result in loss of forest land.

Table 4.2-3 Land Cover Type

Land Cover Type	Project Corridor Acres (including design options)	Study Area Acres
Forest Areas		
Arroyo Willow	0.5	3.4
Chamise- black sage chaparral	1.3	24.5
Chamise chaparral	0.7	13.6
Eucalyptus	0	0.4
Mixed Monterey pine – oak woodland	0.1	2.8
Coastal oak sage scrub	0.3	4.3
Coast live oak woodland	10.8	142
Riparian woodland	0.4	6.5
Total Forested Land Cover	14.1	209.9
Non-forest Areas		
Ice plant mat	3.5	51
Agriculture	0.4	4.5
Landscaped	1.8	35.6
California sagebrush scrub	0.9	12.4
Developed	17.9	103.9
Dune scrub	1.6	42.7
Non-native annual grassland	4.7	151.6
Ephemeral pond	0	0.1
Ruderal	0.9	20.3
Open water	0	0.9
Coyote brush scrub	1.9	27
Bare ground/disturbed	0.6	7.7
Maritime Chaparral	1.9	37.5
Black Sage Scrub	3.3	55.2
Emergent wetland	0.1	1.8
California sagebrush scrub	0.9	12.4
Total Non-forested Land Cover	40.4	564.6
Total Forested and Non-forested Land Cover	54.5	762.1

Source: Appendix C

As shown above, 14.1 of 54.5 project corridor acres (26 percent) are forested, while 209.9 of 762.1 study area acres (28 percent) are forested. Based on the standard of 10 percent native tree cover, both the project corridor and the study area, when considered in their entirety, would qualify as forest land. However, forested areas are limited to certain portions of the Northern Loop segment, CSUMB Loop South segment, National Monument Loop segment, and Canyon Del Rey/SR 218 segment, while the majority of the project corridor and study area are not forested.

Within forested areas, removal of some trees would be required in order to construct the Trail. However, this effect would be minimized by utilizing existing trails and by aligning the Trail between and around trees within the study area, where feasible. Furthermore, tree removal impacts would be distributed linearly, without the need to clear out large areas. Finally, any tree removal would be required to comply with local regulations. Each FORTAG jurisdiction requires a tree removal permit, which can be conditioned to require replacement tree planting. Therefore, the project as a whole would not convert forest land to non-forest land.

FORTAG would not conflict with any zoning of forestry or timber resources. The project's effects on trees would be minimized by design features and would be distributed across a large area. Therefore, the project would result in a less than significant impact on forestry resources.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 5: 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?

Impact AG-4 TRAIL CONSTRUCTION AND USE COULD ADVERSELY AFFECT AGRICULTURAL OPERATIONS WITHIN 50 FEET OF THE TRAIL . THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

The majority of the Trail would not be constructed near agricultural operations. Portions of the Northern Loop segment and Northern Marina segment would be adjacent to agricultural operations. This includes crops north and south of Charles Benson Road, crops northeast of the northern boundary of Marina, and crops and grazing land east of the Marina Municipal Airport. The Monterey County Zoning Code Section 21.66.030 Standards for Agricultural Uses requires a minimum 50-foot buffer between agricultural land and adjacent uses. Therefore, Trail construction and use within 50 feet of agricultural land is considered to have the potential to impact agricultural operations. In some areas, the Trail would be placed directly adjacent to agriculture, with minimal buffering by natural or built features. In these areas, the interface of Trail users and agricultural operations could result in several types of land use conflicts, affecting both agricultural resources and Trail users. The analysis below focuses on the potential impact of Trail users on adjacent agricultural operations. Impacts of agricultural operations on Trail users are addressed in Impact AG-5.

Construction-Related Conflicts

During Trail construction, construction equipment and activities may disrupt agricultural operations. For example, construction vehicles and equipment staging could restrict access to farmland, if placed in or adjacent to existing farm access roads along the existing rail line. Particularly during harvest periods, when agricultural activity is at its peak, construction vehicles and personnel within or adjacent to active cropland may hamper these activities. Vegetation clearance and grading activities could result in erosion of topsoil, with the potential for sedimentation on adjacent agricultural properties. Construction-related erosion impacts are addressed in **Section 4.10, Hydrology and Water Quality**.

The presence of construction personnel could also generate conflicts related to trespassing, littering, and food safety. These issues are discussed below as they pertain to operation of the proposed Trail; however, these effects could similarly occur during construction.

Mitigation is required to limit the extent of these construction phase conflicts.

Trespassing

Development adjacent to farmland can induce a range of adverse impacts on farm operations. Direct physical impacts could include vandalism to farm equipment and theft of products, as well as soil compaction which can damage crop potential. Trespassing by Trail users onto agricultural land by could occur, as stretches of the project corridor near farmland are isolated, with minimal security or human presence.

While some natural vegetative buffering is present between the proposed Trail and adjacent farmland, there is no restrictive barrier, and the project does not propose fencing along farmland. Therefore, mitigation is required to prevent potential trespassing onto farmland, and associated direct impacts to agriculture.

Littering

The project could result in litter, particularly if insufficient numbers of trash/recycling receptacles are provided along the Trail. Unintentional littering could occur if litter deposited by Trail users in trash or recycling receptacles is carried by winds onto adjacent lands.

The project would include trash and recycling containers, which would limit littering to some extent. However, some litter, whether intentionally or unintentionally released, could enter adjacent farmland. Therefore, mitigation is required to remove litter released onto adjacent properties.

Food Safety

As noted in **Section 2.1, Project Overview**, dogs would be allowed throughout the Trail, and equestrian use would be allowed in certain areas, as shown in **Figure 2-12 in Section 2, Project Description**. The project would add equestrian side paths along small portions of the Northern Loop segment where there is an existing equestrian route, but would not open up any new areas to equestrian use. Dogs would be required to be kept on-leash. However, due to the proximity of the Trail to crops in some areas, canine waste is a potential food safety concern. Human waste on farmed areas is also a potential concern, as the Trail would not provide restrooms and there are homeless/transient persons throughout Monterey County.

Both canine and human waste would have the potential to contaminate crops, resulting in safety and liability concerns. Exposure of crops to fecal matter could result in contamination with

foodborne pathogens such as E. coli, Listeria, and Salmonella (Centers for Disease Control [CDC] and Prevention 2018). Agricultural operators linked to a disease outbreak could be held liable, resulting in costs associated with insurance and lost earnings. While economic effects of a project are not treated as significant effects on the environment under CEQA, the potential physical changes caused by the economic change may be [CEQA Guidelines Section 15131(a)]. In this case, if the economic factors listed above would cause an agricultural operation to no longer be profitable, the operator may choose to end the operation. Therefore, food safety hazards could result in conversion of farmland. Mitigation is required to reduce this impact.

Agricultural Nuisance Complaints

Urban development adjacent to agriculture commonly results in nuisance-related complaints about existing farming operations. Typical agricultural nuisance complaints relate to dust, odors, noise, and pesticide spraying, and are most common from residential development adjacent to farmland. Transitory Trail users enter and leave agricultural areas of their own accord and are more likely, therefore, to accept short-term nuisances from agriculture. Nevertheless, given the proximity of agricultural operations in the vicinity of the proposed Trail and the potentially large number of Trail users (described in **Section 4.14, Transportation**), some agricultural nuisance complaints could occur.

Agricultural operations that could be affected by the project are located in unincorporated Monterey County. Nuisance complaints against agriculture are addressed by Chapter 16.40, Protection of Agricultural Activities, of the Monterey County Code. Chapter 16.40 is intended to support and encourage continued agricultural operations in the County, in part by defending agriculture against nuisance complaints. The chapter does this by specifying that agricultural operations that are conducted in accordance with accepted standards shall not be considered a nuisance. The chapter also requires that real estate transfers include a “right to farm” notice informing the purchaser that certain inconveniences are to be expected from owning property near agriculture.

Despite the protections described above, land use conflicts and agricultural nuisance complaints could still occur as a result of the proposed FORTAG project and may result in a significant impact. The mitigation measures identified above for trespassing, littering and food safety would minimize these nuisance complaints by reducing conflicts between agricultural operations and Trail users.

Summary

As outlined above, the project could negatively impact adjacent agricultural operations by placing Trail users in proximity to active farmland. Trail users may impact agriculture through trespassing, pilfering, littering, damaging agricultural equipment, and generating food safety-related concerns.

Implementation of **Mitigation Measures AG-4(a)** through **AG-4(c)** would reduce conflicts between Trail users and agricultural operations, thereby limiting the potential for negative effects. This impact of the project would be less than significant with mitigation.

Mitigation Measures

AG-4(a) Implement Measures to Reduce Construction-Related Conflicts with Agricultural Operations

The following measures shall be implemented during construction to reduce potential conflicts between construction-related activities and agricultural operations; these measures are applicable wherever Trail construction activities occur within proximity to active agricultural operations, and shall be the responsibility of the implementing entity:

- Staging for construction shall not occur in or directly adjacent to active agricultural areas and access to staging areas shall not block or inhibit access to existing farmland or farm access roads
- Where feasible, earth moving construction activities, such as grading and site preparation, within 50 feet of agricultural areas shall not occur during peak harvest periods
- When construction activities must occur during agricultural harvest (for example, to avoid nesting bird season), reasonable access to farmland, as determined by the implementing entity in consultation with the agricultural operators, shall be maintained; while precise timing cannot be specified, the implementing entity would endeavor to consult with the Farmers as early as feasible in the development of the construction schedule
- The construction contractor shall designate a contact for construction-related complaints. Contact information shall be provided to agricultural operators within 50 feet of the Trail, and shall be posted at construction staging areas. The contractor shall respond to complaints in a timely manner

These measures shall be included in final design plans for FORTAG segments adjacent to agriculture and implemented by the construction contractor. The implementing entity shall review plans to confirm inclusion of these measures and conduct spot-check monitoring during construction to ensure compliance.

AG-4(b) Install Fencing and Signage Prior to Operation

Wherever the Trail is constructed within 50 feet of agricultural fields, fencing shall be installed between the Trail and adjacent agricultural operations. In addition, signs clearly indicating “No Trespassing” shall be installed at key locations near agricultural operations, to be identified by the implementing entity for Trail segments adjacent to agriculture in consultation with agricultural operators. The signs shall specify the legal ramifications for trespassing on adjacent properties. Additional signage shall be installed, where appropriate, reminding Trail users that dogs must be on leash and remain on the trail, that littering is prohibited, and that dog waste must be removed.

The implementing entity shall be responsible for ensuring the fencing and signs are properly maintained and shall replace fencing and signs when they are removed or damaged such that they are no longer functional.

AG-4(c) Regularly Remove Solid Waste and Litter during Operation

Once the Trail is open for public use, the implementing entity shall ensure that solid waste is collected from trash receptacles on a reasonable, periodic basis to ensure that the trash and recycling receptacles located along the Trail do not overflow. The frequency shall be determined by the implementing entity and may vary seasonally, with more frequent collection in the summer months when the Trail is busy.

The implementing entity shall also be responsible for collecting litter along the Trail. If litter leaves the Trail ROW, the implementing entity shall ensure that the litter in the vicinity of the Trail that is reasonably attributed to Trail use is removed within a reasonable time frame. Access to agricultural fields for the purpose of litter removal shall be coordinated with on-site agricultural operators, taking into account pesticide/fumigant restrictions and the goal of minimizing soil compaction or direct contact with crops. The implementing entity shall not enter adjacent agricultural fields without express permission by the agricultural operator. All solid waste and recyclable materials shall be properly disposed.

Significance After Mitigation

Impacts would be less than significant with mitigation.

Impact AG-5 AGRICULTURAL OPERATIONS COULD ADVERSELY AFFECT TRAIL USERS, WHICH MAY RESULT IN CONFLICTS WITH AGRICULTURAL OPERATIONS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

The interface of Trail use and agricultural operations could result in land use conflicts that affect both agricultural resources and Trail users. The analysis below is focused on the potential impact of adjacent agricultural operations on Trail users. Impacts of Trail users on agricultural operations are addressed in **Impact AG-3**, above.

Strictly speaking, the analysis of impacts on Trail users is not required by CEQA. In *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369, 377 (CBIA I), the California Supreme Court held that “agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project’s future users or residents.” When the case was remanded from the Supreme Court down to the Court of Appeal, the latter body noted that, for a public project, a lead agency could choose to disregard these limitations on the scope of CEQA analysis, and could voluntarily address the effects of preexisting environmental hazards of project users. (*California Building Industry Association v. Bay Area Air Quality Management District* (2016) 2 Cal.App.5th 1067, 1082-1083 (CBIA II).) Such voluntary analysis is included here.

The use of pesticides on adjacent row crops and the suspension of dust from operation of farm equipment could present adverse health concerns and nuisance complaints from Trail users unaccustomed to agricultural practices. Potential health effects associated with exposure to agricultural pesticides are discussed in **Section 4.9, Hazards and Hazardous Materials**. This analysis focuses on the potential for such complaints to result in impacts to agricultural resources.

In order to purchase and use pesticides in Monterey County, a farmer must first obtain a site-specific permit from the Agricultural Commissioner. The Agricultural Commissioner’s office would not place additional restrictions upon agricultural operators as a result of the project as long as pesticides and other agricultural chemicals are applied in compliance with the label, worker safety requirements, weather conditions, drift restrictions, and all other safety requirements pursuant to federal, state, and local laws. As described in **Section 4.2.2, Regulatory Setting**, these existing regulations require a 100 foot exclusion zone between most pesticide applications and all persons other than appropriately trained and equipped pesticide handlers (CCR Title 3 Section 6762(c)). This exclusion zone would ensure that pesticides used adjacent to the trail not be applied within 100 feet of Trail users.

As discussed in **Section 4.2.1, Existing Conditions**, pesticides are used heavily in Monterey County. Pesticide use includes the fumigants Tri-Chlor Fumigant, Tri-Chlor EC Fumigant, Tri-Form 80, K-Pam HL, and Telone II. Active ingredients found in these fumigants include Chloropicrin and 1,3-Dichloropropene, both of which are hazardous to humans. Chloropicrin is a volatile liquid with the characteristics of a tear gas, while 1,3-Dichloropropene is toxic when inhaled and is a carcinogenic (CDC 2011 and USEPA 2000). For Telone II, label restrictions include prohibiting use within 100 feet of an occupied structure. Currently, there are no buffer restrictions for transient uses (e.g., pedestrians on a trail). However, an exclusion zone of 100 feet is assumed for Telone II, consistent with general exclusion zones for pesticide application.

Some portions of the Trail would be directly adjacent to agricultural operations, with minimal buffering. Therefore, Trail users could be exposed to pesticides. The potential for exposure would increase in instances where Trail users may trespass onto adjacent agricultural property after pesticides have been applied. The health effects of pesticide exposure are further discussed in **Section 4.9, Hazards and Hazardous Materials**. Liability concerns, as discussed previously, could also result in indirect impacts to agricultural operators.

Exposure to pesticides in public areas near agriculture is an existing condition in the region. The Monterey County Agricultural Commissioner tracks pesticide use and enforces applicable safety regulations. However, **Mitigation Measure AG-4(b)** would reduce this risk for Trail by installing fencing and No Trespassing signs between the Trail and agriculture. This would restrict access to agricultural areas, thus reducing the potential for exposure of Trail users to pesticides.

Mitigation Measures

AG-4(b) Install Fencing and Signage Prior to Operation

Mitigation Measure AG-4(b) text is included under **Impact AG-4** above.

Significance After Mitigation

Impacts would be less than significant with mitigation.

4.2.5 Cumulative Impact Analysis

The geographic scope for considering cumulative impacts on agricultural and forestry resources consists of the cities of Marina, Seaside, Monterey, and Del Rey Oaks, as well as surrounding unincorporated Monterey County. Projects in this region that could impact farmland or forest land are considered in the analysis. This scope is used in order to evaluate potential loss/conversion of farmland and forest land within the context of regional diminishment of these resources. Projects near the study area are listed in **Table 3-1, Cumulative Projects List**, in **Section 3, Environmental Setting**.

Agricultural resources near the study area occur along the Northern Loop segment and Northern Marina segment, in the City of Marina and Monterey County. Cumulative projects in these two jurisdictions near the study area would not convert farmland. However, several projects are proposed in close proximity to farmland, such as the Marina Station project in the City of Marina and the East Garrison project in Monterey County. The Marina Station project would convert land historically used for grazing. However, the land is within the limits of an incorporated City, and the EIR prepared for the project determined impacts to agricultural resources to be less than significant without mitigation (City of Marina 2007).

Cumulative projects are not anticipated to result in direct conversion of agricultural land. However, development near farmland could result in a loss of farmland due to land use conflicts. This impact is potentially cumulatively significant. FORTAG would contribute to this impact, as described above under **Impact AG-4** and **AG-6**. However, **Mitigation Measures AG-4(a)** through **AG-4(c)** would reduce the project's impacts that could result in loss of farmland. With mitigation incorporated by the project and other cumulative projects, the project's contribution to a cumulative impact to farmland would be reduced to below a level of significance.

Forestry resources occur in various locations throughout the study area, as described above under **Section 4.2.1, Existing Conditions**. However, the study area is generally within developed and urbanized areas, with Monterey County's more significant forest resources occurring elsewhere, in southern and eastern portions of the County. Projects planned in the study area are generally infill projects that would occur in non-forested areas. Furthermore, while no land within the study area is zoned specifically for forestry or timber uses, trees are protected by regulations within the zoning code of each jurisdiction. Therefore, cumulative impacts to forestry resources would be less than significant.

While the project would require tree removal and would add visitors to some forested areas, the project would not require rezoning of forest land or clear-cutting of large areas. Effects on trees would be distributed geographically by the linear alignment of the project, and would comply with local tree removal permit requirements. The project would not have a significant contribution to cumulative impacts on forestry resources.

4.3 Air Quality

This section describes existing regional air quality, outlines the regulatory framework applicable to air quality management, and evaluates impacts related to criteria pollutant emissions as a result of FORTAG construction and operation.

4.3.1 Existing Conditions

a. Climate and Topography

The project corridor is located Monterey County, which is within the North Central Coast Air Basin (NCCAB). The NCCAB is composed of Monterey, Santa Cruz, and San Benito counties and covers an area of more than 5,100 square miles. The air basin features varied vegetation, climate, and geography and includes portions of several mountain ranges: the Santa Lucia and Gabilan ranges in Monterey and San Benito counties, the southern portion of the Santa Cruz Mountains in Santa Cruz County, and the Diablo Range in the eastern half of San Benito County. The coastal terraces in the Santa Cruz area, the flat plains surrounding Watsonville, Salinas, and King City, and the southern Santa Clara Valley are markedly defined by these mountain ranges. The topography of the project corridor is dominated by Ben Lomond Mountain ridgeline, which lies east of the Trail alignment and trends roughly northwest to southeast, parallel to the coastline.

The Pacific High, a semi-permanent high-pressure cell in the eastern Pacific Ocean, is the controlling factor in the climate of the NCCAB. In the summer, the high-pressure cell is dominant and causes persistent west and northwest winds over the entire California coast. Air descends from the Pacific High, and warms and dries as it descends, resulting in generally sunny skies and dry weather. The relatively cooler temperature of the Pacific Ocean creates a layer of cool air directly over the ocean. This stable temperature inversion of warm air over a cooler coastal layer of air creates an onshore air current that passes over cool ocean waters to bring fog and relatively cool air into the coastal valleys. The warmer aloft air acts as a lid that inhibits vertical air movement and allows air pollutants to concentrate in the lower level (Santa Cruz County 2019).

The generally northwest-southeast orientation of mountainous ridges tends to restrict and channel the summer onshore air currents. Surface heating in the interior portion of the Salinas and San Benito valleys creates a weak low pressure that intensifies the onshore air flow during the afternoon and evening.

In the fall, the surface winds become weak, and the marine layer grows shallow, dissipating altogether on some days. The airflow is occasionally reversed in a weak offshore movement, and the relatively stationary air mass is held in place by the Pacific High pressure cell, which allows pollutants to build up over a period of a few days. It is most often during this season that north or east winds develop, transporting pollutants from either the San Francisco Bay area or the Central Valley into the NCCAB.

During the winter, the Pacific High migrates southward and has less influence on the NCCAB. Air frequently flows in a southeasterly direction out of the Salinas and San Benito Valleys, especially during night and morning hours. The general absence of deep, persistent inversions and occasional storm systems usually result in good air quality for the basin as a whole in winter and early spring (Santa Cruz County 2019).

In the study area, average annual temperatures are relatively stable and range from winter lows in the middle 40s to summer and fall highs in the upper 60s in degrees Fahrenheit (WRCC 2019). The total average annual precipitation is approximately 20 inches, with the majority of rainfall occurring from November through March.

b. Air Pollutants of Primary Concern

The federal and state Clean Air acts mandate the control and reduction of certain air pollutants. Under these acts, the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established ambient air quality standards for certain pollutants identified as “criteria” pollutants considered harmful to public health and the environment. Ambient air pollutant concentrations are affected by the rates and distributions of corresponding air pollutant emissions, as well as by the climactic and topographic influences discussed above. The primary determinant of concentrations of non-reactive pollutants, such as carbon monoxide (CO) and particulate matter (PM), is proximity to major sources. Ambient CO levels in particular usually closely follow the spatial and temporal distributions of vehicular traffic. A discussion of the primary “criteria” pollutants of concern is provided below.

Ozone

Ozone is a colorless gas with a pungent odor. Most ozone in the atmosphere is formed as a result of the interaction of ultraviolet light, reactive organic gases (ROG), and oxides of nitrogen (NO_x). ROG (the organic compound fraction relevant to ozone formation, and sufficiently equivalent for the purposes of this analysis to volatile organic compounds, or VOC¹) is composed of non-methane hydrocarbons (with some specific exclusions), and NO_x is made of different chemical combinations of nitrogen and oxygen, mainly NO and NO₂. A highly reactive molecule, ozone readily combines with many different components of the atmosphere. Consequently, high levels of ozone tend to exist only while high ROG and NO_x levels are present to sustain the ozone formation process. Once the precursors have been depleted, ozone levels rapidly decline. Because these reactions occur on a regional rather than local scale, ozone is considered a regional pollutant.

Carbon Monoxide

Carbon monoxide (CO) is an odorless, colorless, gas. CO causes a number of health problems including fatigue, headache, confusion, and dizziness. The incomplete combustion of petroleum fuels in on-road vehicles and at power plants is a major cause of CO. CO is also produced during the winter from wood stoves and fireplaces. CO tends to dissipate rapidly into the atmosphere; consequently, violations of the state CO standard are generally associated with major roadway intersections during peak hour traffic conditions. Localized carbon monoxide “hotspots” can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal Ambient Air Quality Standards (AAQS) of 35.0 parts per million (ppm) or the state AAQS of 20.0 ppm.

Nitrogen Dioxide

Nitrogen dioxide (NO₂) is a by-product of fuel combustion, with the primary source being motor vehicles and industrial boilers and furnaces. The principal form of nitrogen oxide produced by

¹ ROG is equivalent to VOC per MBARD Rule 101, 2.32

combustion is nitric oxide (NO), but NO reacts rapidly to form NO₂, creating the mixture of NO and NO₂ commonly called NO_x. Nitrogen dioxide is an acute irritant. A relationship between NO₂ and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 parts per million (ppm) may occur. Nitrogen dioxide absorbs blue light and causes a reddish brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of PM₁₀ and acid rain.

Particulate Matter

Suspended particulate matter (airborne dust) consists of particles small enough to remain suspended in the air for long periods. Fine particulate matter includes particles small enough to be inhaled, pass through the respiratory system, and lodge in the lungs, with resultant health effects. Particulate matter can include materials such as sulfates and nitrates, which are particularly damaging to the lungs. Health effects studies resulted in revision of the Total Suspended Particulate (TSP) standard in 1987 to focus on particulates that are small enough to be considered “inhalable,” (i.e., 10 microns or less in size [PM₁₀]). In July 1997, a further revision of the federal standard added criteria for PM_{2.5}, reflecting studies that suggested particulates less than 2.5 microns in diameter are of particular concern.

Lead

Lead (Pb) is a metal found in the environment and in manufacturing products. The major sources of Pb emissions historically have been mobile and industrial sources. In the early 1970s, the USEPA set national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The USEPA completed the ban prohibiting the use of leaded gasoline in highway vehicles in December 1995. As a result of the USEPA’s regulatory efforts to remove lead from gasoline, atmospheric lead concentrations have declined substantially over the past several decades. The most dramatic reductions in lead emissions occurred prior to 1990 due to the removal of lead from gasoline sold for most highway vehicles. Lead emissions were further reduced substantially between 1990 and 2008, with reductions occurring in the metals industries at least in part as a result of national emissions standards for hazardous air pollutants (USEPA 2013). Because of phasing out leaded gasoline, metal processing is now the primary source of lead emissions. The highest level of lead in the air is found generally near lead smelters. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers.

Toxic Air Contaminants

According to Section 39655 of the California Health and Safety Code, a toxic air contaminant (TAC) is “an air contaminant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health.” One hundred eighty-nine substances that have been listed as federal hazardous air pollutants (HAP) pursuant to Section 4712 of Title 42 of the United States Code are classified as TACs under the State’s air toxics program pursuant to Section 39657(b) of the California Health and Safety Code.

TACs can cause cancer and other types of long-term health effects, depending on the particular chemical, their type and duration of exposure; some TACs can also result in short-term health effects. The ten TACs posing the greatest health risk in California are acetaldehyde, benzene, 1-3 butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchlorethylene, and diesel PM. Mobile sources of TACs include freeways and

other roads with high traffic volumes (urban roads with traffic volumes exceeding 100,000 vehicles per day or rural roads exceeding 50,000 vehicles per day), while stationary sources include distribution centers, rail yards, ports, refineries, dry cleaners, and large gas dispensing facilities.

c. Current Air Quality

Federal and state standards have been established for ozone, CO, NO₂, sulfur dioxide (SO₂), and fine particulates (PM₁₀ and PM_{2.5}). **Table 4.3-1** summarizes the current federal and state standards for each of these pollutants. The primary standards listed below have been set at levels intended to protect public health. California standards are generally more restrictive than federal standards.

Table 4.3-1 Current Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time ¹	Federal Primary Standards	California Standard
Ozone	8-Hour	0.070 ppm	0.070 ppm
	1-Hour	–	0.09 ppm
Carbon Monoxide	8-Hour	9 ppm	9.0 ppm
	1-Hour	35 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.030 ppm
	1-Hour	0.1 ppm	0.18 ppm
Sulfur Dioxide	24-Hour	0.14 ppm	0.04 ppm
	3-Hour	0.5 ppm	–
	1-Hour	0.075 ppm	0.25 ppm
PM ₁₀	Annual	–	20 µg/m ³
	24-Hour	150 µg/m ³	50 µg/m ³
PM _{2.5}	Annual	12 µg/m ³	12 µg/m ³
	24-Hour	35 µg/m ³	–
Lead	Calendar Quarter	1.5 µg/m ³	–
	Rolling 3-month average	0.15 µg/m ³	–
	30-day average	–	1.5 µg/m ³

¹ Time period over which emissions are averaged for comparison to threshold.

ppm = parts per million

µg/m³ = micrograms per cubic meter

Source: CARB 2016

As indicated above, depending on whether or not the standards are met or exceeded, the air basin is classified as being in “attainment” or in “non-attainment,” respectively. **Table 4.3-2** summarizes the federal and state attainment status for criteria pollutants. As shown therein, the NCCAB is in attainment or unclassifiable status for all federal AAQS. For state AAQS, the NCCAB is currently in nonattainment status for respirable particulate matter (PM₁₀) and ozone.

Table 4.3-2 North Central Coast Air Basin Attainment Status

Pollutant	Averaging Time	California Standards	Federal Standards
Ozone (O ₃)	1 Hour	Nonattainment	No federal standard
	8 Hour		Attainment
Respirable Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	Nonattainment	No federal standard
	24 Hour		Unclassified ¹
Fine Particulate Matter (PM _{2.5})	Annual Arithmetic Mean	Attainment	Attainment
	24 Hour	No state standard	
Carbon Monoxide (CO)	8 Hour	Attainment	Unclassified/Attainment
	1 Hour		
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	No state standard	Attainment
	1 Hour	Attainment	No federal standard
Sulfur Dioxide	24-Hour	Attainment	Attainment
	3-Hour	No state standard	No federal standard
	1-Hour	Attainment	Attainment
Lead	Calendar Quarter	No state standard	Unclassified/Attainment
	Rolling 3-month average	No state standard	Unclassified/Attainment
	30-day average	Attainment	No federal standard

¹ Unclassified; indicates data are not sufficient for determining attainment or nonattainment.

Attainment = Meeting air quality standards

Nonattainment = Exceeding air quality standards

Source: CARB 2017, CARB 2018

The Monterey Bay Air Resources District (MBARD) consists of all three counties in the NCCAB, including Monterey County; therefore, the Trail alignment is under the jurisdiction of the MBARD. MBARD is responsible for air monitoring, permitting, enforcement, long-range air quality planning, regulatory development, education and public information activities related to air pollution in the NCCAB. MBARD monitors ambient air pollutant levels to assure that air quality standards are met and, if they are not met, to develop strategies to meet the standards. **Table 4.3-3** summarizes the annual air quality data for Monterey County for the most recent years available at the Carmel Valley – Ford Road and King City monitoring stations.

The Carmel Valley – Ford Road station, located at Via Contenta and Pilot Road in Carmel Valley, is the closest station to the project corridor. However, nitrogen dioxide, sulfur dioxide, CO, and PM₁₀ were not monitored at the Carmel Valley – Ford Road station. The King City station, located at 415 Pearl Street in the City of King City, is the only station in Monterey County that monitors PM₁₀. The Salinas station, located at 867 East Laurel Drive in the City of Salinas, is the only station in Monterey County that monitors nitrogen dioxide. No data for CO is available from any monitoring station in Monterey County after 2012, and no data for sulfur dioxide is available after 1990. The data collected by CARB is shown in **Table 4.3-3**.

Table 4.3-3 Ambient Air Quality Data

Pollutant	Monitoring Station	2015	2016	2017
Ozone, ppm - Worst Hour	Carmel Valley – Ford Road	0.071	0.078	0.073
Number of days of state exceedances (>0.09 ppm)		0	0	0
Ozone, ppm – Worst 8-hour Average	Carmel Valley – Ford Road	0.066	0.061	0.066
Number of days of federal/state exceedances (>0.07 ppm)		0	0	0
Particulate Matter <10 microns, $\mu\text{g}/\text{m}^3$ Worst 24 Hours	King City – 415 Pearl Street	7.26	7.14	9.53
Number of samples of state exceedances (>50 $\mu\text{g}/\text{m}^3$)		0	0	0
Number of samples of federal exceedances (>150 $\mu\text{g}/\text{m}^3$)		0	0	0
Particulate Matter <2.5 microns, $\mu\text{g}/\text{m}^3$ Worst 24 Hours	Carmel Valley – Ford Road	4.32	10.47	4.36
Number of days federal exceedances		1	12	1
Nitrogen Dioxide, ppm – Worst Hour	Salinas	0.033	0.033	0.034
Number of days of state exceedances (>0.18 ppm)		0	0	0

Note: There is no data available yet for 2018.

Source: CARB 2019

Given that the NCCAB is designated as nonattainment for ozone and PM₁₀, these are the primary pollutants of concern for the NCCAB. As indicated in **Table 4.3-3**, there were no Federal or State ozone exceedances in 2015, 2016, or 2017. The State and Federal standards for PM₁₀ were also not exceeded in 2015, 2016, or 2017; however, Federal standards for PM_{2.5} were exceeded in all three years.

Sensitive Receptors

Certain population groups are more sensitive to air pollution than others; in particular, children, the elderly, and acutely ill and chronically ill persons, especially those with cardio-respiratory diseases. As described in the MBARD’s 2008 *CEQA Air Quality Guidelines*, a sensitive receptor is defined as: any residence, including private homes, condominiums, apartments, and living quarters; education resources such as preschools and kindergarten through grade twelve (K-12) schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes.

Sensitive receptors located adjacent to or within a few hundred feet of the proposed FORTAG corridor are summarized below by segment.

- **Northern Marina.** Residences and Lone Olson Elementary school are located adjacent to the proposed Trail alignment along Beach Road, Estrella Del Mar Way, and Quebrada Del Mar Road.
- **Northern Loop.** Residences are located near the Trail alignment along Inter-Garrison Road.
- **CSUMB Loop North.** Residences are located near the eastern portion of the proposed Trail alignment near Inter-Garrison Road. Residences are also located adjacent to California Avenue. Residence halls are located adjacent to the Trail alignment in the northeast portion of CSUMB.
- **CSUMB Loop South.** Campus residence halls are located across Divarty Street from the Trail alignment.
- **National Monument Loop.** Residences are located within approximately 250 feet of the Trail alignment crossing at Normandy Road. Residences are located west of the proposed Trail alignment, but separated from the Trail by General Jim Moore Boulevard.

- **Canyon Del Rey/SR 218.** Existing residences are located within approximately 250 feet of the Trail alignment along Canyon Del Rey Boulevard and adjacent to the Trail alignment along Angelus Way. A hotel is located at the Trail terminus at Del Monte Boulevard.
- **Ryan Ranch.** This segment area is currently undeveloped, and there are no existing sensitive receptors along this segment of the proposed Trail alignment. The nearest sensitive receptors are residences located south of General Jim Moore Boulevard, approximately 0.6 mile west of this segment.

4.3.2 Regulatory Setting

a. Federal

Clean Air Act

The Clean Air Act (CAA) of 1970 is the comprehensive federal law that regulates air emissions from stationary and mobile sources. The CAA authorizes the USEPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants. In 1977, Congress again added several provisions, including non-attainment requirements for areas not meeting NAAQS and the Prevention of Significant Deterioration program. The 1990 federal CAA amendments represent the latest in a series of federal efforts to regulate air quality in the United States. The federal CAA allows states to adopt more stringent standards or to include additional pollution species. Current NAAQS are listed in **Table 4.3-1**.

National Ambient Air Quality Standards

The federal CAA requires USEPA to establish primary and secondary NAAQS for a number of criteria air pollutants. The air pollutants for which standards have been established are considered the most prevalent air pollutants known to be hazardous to human health. NAAQS have been established for ozone, CO, NO₂, SO₂, PM₁₀, PM_{2.5}, and Pb.

The USEPA has classified air basins (or portions thereof) as being in “attainment,” “nonattainment,” or “unclassified” for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. **Table 4.3-2** lists the attainment status of the NCCAB for the criteria pollutants.

Title III of the Federal Clean Air Act

The CAA was amended in 1990 to better address hazardous air pollutants (HAPs) (Title III). Title III offers a comprehensive plan for achieving significant reductions in emissions of HAPs from major sources. It includes a list of 189 toxic air pollutants of which emissions must be reduced. The USEPA maintains and updates a list of source categories including (1) major sources emitting 10 tons per year of any one, or 25 tons per year of any combination, of those pollutants; and (2) area sources (smaller sources, such as dry cleaners). As required by Title III, the USEPA developed Maximum Achievable Control Technology (MACT) standards. MACT standards use the HAP emissions of the best-performing industry sources to set the “MACT floor”, which becomes the minimum standard that an industry must at least meet in order to comply with the CAA.

b. State

California Clean Air Act and California Ambient Air Quality Standards

As a part of the California Environmental Protection Agency, CARB is responsible for the coordination and administration of both federal and state air pollution control programs in California. The federal CAA allows states to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. The California Clean Air Act (CCAA) became effective in 1989 and requires all areas of the state to attain the state ambient air quality standards at the earliest practicable date. To that end, California has adopted ambient standards (California Ambient Air Quality Standards or CAAQS) that are equal to or stricter than the federal standards for six criteria air pollutants. The California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations, and are provided in **Table 4.3-1** above. Similar to the federal CAA, areas have been designated as attainment, nonattainment, or unclassified with respect to the state ambient air quality standards.

Tanner Air Toxics Act and Air Toxics Hot Spots Information and Assessment Act

California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807—Tanner Act) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588—Hot Spots Act). The Tanner Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB designates a substance as a TAC. The Hot Spots Act requires that existing facilities that emit toxic substances above specified levels 1) prepare a toxic emission inventory, 2) prepare a risk assessment if emissions are significant (i.e., 10 tons per year or on the Air District's Hot Spots Risk Assessment list), 3) notify the public of significant risk levels, and 4) prepare and implement risk reduction measures.

Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles

In September 2000, CARB approved the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (CARB 2000). The plan outlines a comprehensive and ambitious program that includes the development of numerous control measures aimed at substantially reducing emissions from new and existing on-road vehicles (e.g., heavy-duty trucks and buses), off-road equipment (e.g., graders, tractors, forklifts, sweepers, and boats), portable equipment (e.g., pumps), and stationary engines (e.g., stand-by power generators). CARB has adopted several regulations that will reduce diesel emissions from in-use vehicles and engines throughout California. In some cases, the particulate matter reduction strategies also reduce smog-forming emissions such as NO_x. As an ongoing process, CARB reviews air contaminants and identifies those that are classified as TACs. CARB also continues to establish new programs and regulations for the control of TACs, including diesel particulate matter, as appropriate.

Air Quality and Land Use Handbook

In 2005, CARB's Community Health Program made available the *Air Quality and Land Use Handbook: A Community Health Perspective* to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process (CARB 2005). The recommendations in the handbook are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts.

c. Regional

Monterey Bay Air Resources District

MBARD regulates air quality in the NCCAB and is responsible for attainment planning related to criteria air pollutants and for district rule development and enforcement. It also reviews air quality analyses prepared for CEQA assessments and has published the *CEQA Air Quality Guidelines (MBARD Guidelines)* document (last revised February 2008) for use in evaluation of air quality impacts (MBARD 2008).

The purpose of the *MBARD Guidelines* is to assist in the review and evaluation of air quality impacts from projects that are subject to CEQA. The *MBARD Guidelines* are an advisory document intended to provide lead agencies, consultants, and project proponents with uniform procedures for assessing potential air quality impacts and preparing the air quality section of environmental documents. The *MBARD Guidelines* are also intended to help these entities anticipate areas of concern from the MBARD in its role as a lead, commenting and/or responsible agency for air quality.

MBARD has established rules and regulations to reduce the generation of criteria pollutants, including the following:

- **MBARD Rule 402 – Nuisances.** Prohibits the discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or which endanger the comfort, repose, health, or safety of any such persons or the public; or which cause, or have a natural tendency to cause, injury or damage to business or property.
- **MBARD Rule 426 – Architectural Coatings.** Limits the VOC content for architectural coatings; specifically, limits the VOC content of flat coatings to 50 grams/ liter (g/L).

Air Quality Management Plan

In accordance with the California Clean Air Act, MBARD has developed the *2012-2015 Air Quality Management Plan for the Monterey Bay Region* (MBARD 2017). The focus of the plan is achieving the 8-hour ozone standard in the region. The plan includes an updated air quality trends analysis; emissions inventory that includes the latest information on stationary, area, and mobile emission sources; and mobile source programs. Projects that are inconsistent with the Air Quality Management Plan (AQMP) would result in a significant cumulative impact related to ozone emissions. A project is consistent with the AQMP if it is consistent with the growth assumptions in the AQMP and, therefore, accommodated in the emissions inventories.

d. Local

The project corridor extends through the following local jurisdictions, as shown in **Figure 2-5** in **Section 2, Project Description**. The relevant plans with air quality goals and policies are described below.

County of Monterey

The Conservation/Open Space Element of the County's General Plan (County of Monterey 2010) includes Goal OS-10, which provides for the protection of air quality without constraining routine and ongoing agricultural activities. The goal is supported by 15 policies that promote conservation

of natural resources, encourage alternatives to vehicle transportation, and require compliance with MBARD regulations and pollution control measures.

City of Marina

The City of Marina General Plan, as amended in 2010, does not include any specific goals or policies related to air quality, but does incorporate General Plan EIR mitigation measures as an appendix document. Air Quality mitigation measures identified for development under the General Plan include compliance with the MBARD CEQA Air Quality Guidelines, including best management practices, and implementation of CO hot spot modeling and Transportation Demand Management measures when determined to be necessary (City of Marina 2010).

City of Seaside

The Conservation/Open Space Element of the Seaside General Plan includes Goal COS-6 to protect and improve local and regional air quality. The goal is supported by Policy COS-6.1, intended to integrate air quality planning with land use, economic development, and transportation planning through several implementation plans. The implementation plans include coordination with MBARD, support of alternative transportation development, use of CEQA to mitigate potential air quality impacts, and expansion of local retail and employment opportunities (City of Seaside 2004). The City of Seaside is currently in the process of updating their General Plan. *Draft Seaside 2040* includes a Healthy + Sustainable Community Element with a policy to improve air quality through support of land use patterns that encourage walking, active transportation, and the reduction of vehicle trips.

City of Monterey

The Conservation Element of the City of Monterey's General Plan (City of Monterey 2016) includes Goal c, which aims to reduce fixed-source and transportation-based air pollution. Policies c.1 through c.3 encourage alternatives to vehicle transportation, require consideration of air quality impacts resulting from development, and promote coordination with other agencies to reduce sources of air pollution.

City of Del Rey Oaks

The Natural Resources chapter of the City of Del Rey Oaks General Plan includes policy C/OS-13, which encourages air quality improvement through implementation of the measures described in the MBARD Air Quality Management Plan, including measures to reduce dependence on vehicle transportation (City of Del Rey Oaks 1997).

4.3.3 Methodology and Significance Thresholds

Methodology

This section describes the potential environmental impacts of FORTAG and all FORTAG design options relevant to air quality.

The analysis of air quality impacts conforms to the methodologies recommended in the MBARD's *CEQA Air Quality Guidelines* (2008) and in Appendix G of the *State CEQA Guidelines*. This includes thresholds for emissions associated with both construction and operation of proposed projects.

Construction Emissions

Construction for the first phase of FORTAG may begin as early as 2021. Construction would continue for several years, depending upon funding availability and participation of the underlying jurisdiction. A total project construction schedule has not been finalized and is subject to funding availability and other considerations.

In general, construction activities for the project would include excavation of material sources, clearing and grubbing, grading, placement of aggregate base and asphalt concrete, revegetation, installation of signs, and installation of lighting and other safety related features necessary to meet current design practice. Large construction equipment would include trail dozers, skid steers, narrow track loaders, rollers, and vibrating plate compactors. It is anticipated that specialized, narrow-width equipment would be used in areas where minimization of the width of construction impact is a priority (i.e., physically restricted work space, work area in or adjacent to sensitive habitat areas). The project does not include removal of any existing buildings or structures and would avoid modifying or relocating above-ground utilities where feasible. Existing utility poles adjacent to the Plumas Avenue right-of-way in the City of Del Rey Oaks would not be modified or removed.

The following best management practices would be implemented during all phases of Trail construction to comply with the MBARD's Rule 402 (Nuisance):

- Grading activities will be prohibited during periods of high wind (over 15 mph)
- Active construction areas will be watered, as needed and at least twice daily, based on the activity, soil and wind exposure
- Chemical soil stabilizers will be applied to inactive construction areas (disturbed lands unused for four consecutive days)
- Native hydro-seed or non-toxic binders will be applied to exposed areas after cut/fill operations
- Haul trucks will maintain a minimum 2-foot freeboard, and dirt, sand, or other loose materials will be covered when being hauled to and from the construction areas
- Native vegetative ground cover will be planted in disturbed areas as soon as possible, in coordination with mitigation planting requirements identified in **Section 4.4, Biological Resources**
- Inactive storage piles will be covered
- In undisturbed areas, as much as practical, construction zones will be limited to a 20-foot corridor to minimize impacts to habitat and wildlife.

The project's criteria pollutant emissions from construction are estimated using the California Emissions Estimator Model (CalEEMod Version 2016.3.2). CalEEMod worksheets showing model inputs and results are provided in **Appendix D**. Specific construction information for all segments is not available at this time because construction phasing would be entirely dependent on funding. Additionally, the seven segments identified in **Table 2-1 in Section 2, Project Description**, are for planning and descriptive purposes, but may not reflect construction phasing. Therefore, the analysis below estimates a conservative worst-case scenario based on currently available information and assumptions provided by Alta Planning + Design (2019). The analysis of air quality impacts associated with the proposed project follows the guidance and methodologies recommended in the MBARD Guidelines and in Appendix G of the *CEQA Guidelines*.

CONSTRUCTION MODELING ASSUMPTIONS

Individual Trail segments are anticipated to require up to 18 months for construction. The National Monument Loop would be the longest segment at 7.97 miles. This segment includes approximately 28 percent of the total 28 miles of proposed Trail. As such, construction of this segment is assumed to require an 18-month construction period and was chosen to represent the worst-case scenario for maximum daily construction emissions. Construction-phase assumptions during the 18-month construction period included four months for site preparation, including excavation of material sources, clearing and grubbing; four months for grading; five months for paving, including placement of the aggregate base and asphalt concrete; four months for construction of associated structures, such as a retaining wall, overcrossing, or undercrossing (not required for all segments); and one month for application of coatings to the retaining wall and other features and installing Trail features, including signage striping, and trash receptacles.

The majority of the proposed FORTAG alignment would have a disturbance width of 16 feet, with approximately 1.3 miles at a maximum of 28 feet wide to accommodate side trails. An average width of 16.6 feet was assumed for the National Monument Loop segment. A width of 16.6 feet multiplied by 7.97 miles (42,081.6 feet) results in a disturbance area of approximately 698,555 square feet, or 16.04 acres. The National Monument Loop would not require the construction of any overcrossings, or undercrossings; however, approximately 2,050 linear feet of retaining wall construction is anticipated for the entire Trail alignment. Therefore, construction of the entire retaining wall length was assumed in the modeling for the National Monument Loop to represent construction of structures.

The Trail alignment has continued to evolve and portions have been removed and/or added since import was initially estimated. Soil cut and fill is assumed to be balanced within the Trail alignment. At the time of modeling, construction of the Trail was assumed to require import of approximately 35,000 cubic yards (CY) of aggregate base and 21,456 CY of asphalt concrete² (Alta Planning + Design 2019), totaling 56,456 CY of imported material. Because exact material import needs were not known with certainty, 15 percent more import material was added to the model to capture the adjusted segments and present a conservative, worst-case scenario. Therefore, a total of approximately 64,924 CY of import material is assumed to be required for the entire Trail alignment. The total of approximately 64,924 CY of import material was divided by total project length (27.8 miles) to estimate an import quantity per mile of approximately 2,335.4 CY. Therefore, for the 7.79 National Monument Loop segment, approximately 18,192 CY of import material was assumed in the modeling. Due to limitations in CalEEMod inputs, import was assumed to occur during the four-month grading phase of the construction period. The CalEEMod default truck capacity and haul distance were also used.

Default construction equipment was assumed for each construction phase, with specific, anticipated equipment conservatively added to the default fleet, as follows: a skid steer was added to the default grading fleet; a vibrating plate compactor was added to the paving equipment fleet; and an excavator and dump truck were added to the structure construction phase. Based on the default vehicle trips for site preparation, grading, and paving, a total of 1,531 haul trips are assumed for the National Monument Loop segment. CalEEMod calculated building construction and coating trips based on square feet of construction, which is not accurate for the linear nature of the project.

² 42,000 tons of asphalt concrete are estimated to be imported (Alta Planning + Design 2019). Based on the assumption that one cubic foot of asphalt concrete weighs approximately 145 pounds (NAPA 2019), it is assumed that 21,456 CY of asphalt concrete would be imported.

Worker vehicle trips were adjusted based on the CalEEMod estimate of 1.25 workers per piece of equipment, and one roundtrip per worker, for all phases of construction.

It is anticipated that more than one Trail segment may be under construction at the same time. However, specific construction schedules and phasing are not yet available. It is currently unknown what segment construction would overlap, or what construction activities would occur simultaneously, if any. This analysis conservatively assumes that worst-case daily emissions of each pollutant from the above scenario would occur simultaneously for a second segment. Worst-case daily emissions are doubled to represent a simultaneous construction scenario (up to two Trail segments).

Operation Emissions

Operational emissions of criteria pollutants and potential for CO hotspots are evaluated qualitatively because the proposed project is anticipated to result in a nominal increase in future vehicle trips.

Significance Thresholds

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For air quality, CEQA Appendix G states that “where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon” in making significance determinations. Thus, the *MBARD CEQA Air Quality Guidelines* are relied upon in this analysis.

For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

1. Conflict with or obstruct implementation of the adopted MBARD AQMP
2. 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
3. Expose sensitive receptors to substantial pollutant concentrations
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people

Regarding criteria pollutant emissions, during construction, an impact would occur if the project would:

1. Emit greater than 82 lbs/day of PM₁₀ if located nearby or upwind of sensitive receptors (note: projects which require minimal earthmoving on 8.1 or more acres per day or grading and excavation on 2.2 or more acres per day are likely to exceed this threshold); or
2. Use equipment that is not “typical construction equipment” as specified in the *MBARD Guidelines*. Examples of typical construction equipment are dump trucks, scrapers, bulldozers, compactors and front-end loaders. Examples of non-typical equipment are grinders and portable equipment. The MBARD does not identify quantitative thresholds for other criteria pollutants during construction. Construction projects using typical construction equipment are accommodated in the emission inventories of federally and state-required air plans and would not have a significant impact.

The *MBARD Guidelines* state that the 82 lbs/day threshold for construction emissions of PM₁₀ is the threshold for both individual and cumulative impacts on local air quality.

During operation, an impact would occur if the proposed project would be inconsistent with the AQMP or:

1. Generate direct (area source or stationary) plus indirect (operational or mobile) emissions of either ROG or NOX that exceed 137 lbs/day;
2. Generate on-site emissions of PM₁₀ exceeding 82 lbs/day;
3. Generate direct emissions of CO exceeding 550 lbs/day; or
4. Generate direct emissions of SO_x exceeding 150 lbs/day

For impacts related to CO, the *MBARD Guidelines* indicate that the following traffic effects should be assumed to generate a significant CO impact, unless CO dispersion modeling demonstrates otherwise:

1. Intersections or road segments that operate at LOS D or better that would operate at LOS E or F with the project's traffic;
2. Intersections or road segments that operate at LOS E or F where the volume-to-capacity (V/C) ratio would increase 0.05 or more with the project's traffic;
3. Intersections that operate at LOS E or F where delay would increase by 10 seconds or more with the project's traffic;
4. Unsignalized intersections which operate at LOS E or F where the reserve capacity would decrease by 50 or more with the project's traffic, based on the turning movement with the worst reserve capacity; or
5. Project would generate substantial heavy-duty truck traffic or generate substantial traffic along urban street canyons or near a major stationary source of CO

4.3.4 Project Impact Analysis

Threshold 1: Would the project conflict with or obstruct implementation of the adopted MBARD AQMP?

Impact AQ-1 THE PROJECT WOULD NOT CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE ADOPTED MBARD AQMP. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

According to *MBARD Guidelines*, a project would conflict with or obstruct implementation of the AQMP for the NCCAB if it is inconsistent with the growth assumptions included in the AQMP, in terms of population, employment, or regional growth in vehicle miles traveled (VMT) (MBARD 2008). The proposed project does not contain a residential or commercial component and would therefore not increase the residential population or employment in the area. Construction of the proposed project would generate temporary employment opportunities, but jobs created by this construction activity would likely be filled by the existing workforce in Monterey County or immediately surrounding areas. No direct growth inducement is expected to result from proposed project implementation.

The increased recreational opportunities associated with the proposed project is intended to service existing Monterey County residences. No new parking facilities would be provided to accommodate

Trail visitors. Therefore, additional vehicle trips are not anticipated as a result of the project. Implementation of the FORTAG project would provide increased regional connectivity that would allow for some vehicle trips to be replaced by alternative modes of transportation, such as walking and bicycling. Ultimately, regional VMT is anticipated to decrease as a result of the project. Therefore, the proposed project would not result in conflict with the VMT assumptions of the AQMP (see **Section 4.14, Transportation**).

The AQMP outlines strategies for reducing vehicle-related emissions of ozone precursors. Unlike previous versions of the AQMP that focused on alternative modes of transportation and reducing vehicle miles traveled, the 2012-2015 AQMP mobile source programs focus on direct emissions reduction. Programs include roundabout design and construction and the application of adaptive traffic signal control at intersections, incentives for purchase or lease of electric vehicles, funding for electric vehicle infrastructure, and voluntary accelerated vehicle retirement programs for older vehicles. These programs focus on the choices of individual consumers. Implementation of the proposed project is not related to consumer vehicle choice and the proposed project would have no impact on implementation of the AQMP mobile source programs. The proposed project would improve the regional bicycle and pedestrian network, which would encourage the use of bicycles and could lead to greater bicycle use in general in the regional mode split. Therefore, FORTAG supports the emissions reduction goals of the AQMP. Impacts would be less than significant and no mitigation is required.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

This impact would be less than significant.

Threshold 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?

Impact AQ-2 THE PROJECT WOULD NOT RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF ANY CRITERIA POLLUTANT. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Construction and operational impacts related to criteria pollutant emissions are addressed separately below. The NCCAB is in non-attainment of the state PM₁₀ and ozone standards.

Construction

Construction of the proposed project would result in the temporary generation of air pollutants from operation of heavy construction equipment and generation of fugitive dust in the construction area. Construction assumptions are summarized above in **Section 4.3.3**, and detailed construction modeling assumptions are available in **Appendix D**. It is currently unknown what segment construction would overlap, or what construction activities would occur simultaneously, if any. Therefore, maximum daily emissions levels associated with construction of the proposed project, based on the worst-case National Monument Loop scenario, are shown in **Table 4.3-4**. Maximum daily emissions during the most intensive construction activity are assumed to be doubled to capture the potential for simultaneous construction of up to two Trail segments. MBARD has only

adopted a quantitative threshold for PM₁₀ emissions during construction; however, emissions from the other criteria pollutants are also provided for informational purposes.

Table 4.3-4 Estimated Construction Daily Maximum Air Pollutant Emissions (lbs/day)

Construction Phase	VOC	NOx	CO	SOx	PM ₁₀	PM2.5
Site Preparation	4	43	23	<1	21	12
Grading	5	57	36	<1	10	6
Paving	2	15	16	<1	1	1
Wall or Other Structure Construction	3	27	25	<1	2	1
Architectural Coating	33	2	2	<1	<1	<1
Simultaneous Construction (two segments)	66	114	72	<1	42	24
Maximum Daily Emissions	66	114	72	<1	42	24
MBARD Threshold	-	-	-	-	82	-
Significant Impact?	-	-	-	-	No	-

Emission quantities are rounded to the nearest whole number. Exact values are provided in Appendix D.

Source: CalEEMod Version 2016.3.2

As shown in **Table 4.3-4**, the proposed project is estimated to generate a maximum of 42 lbs/day of PM₁₀ during simultaneous construction of two segments, which is well below MBARD’s threshold of 82 lbs/day.

MBARD does not identify quantitative thresholds for other criteria pollutants during construction. Construction projects using typical construction equipment such as dump trucks, scrapers, bulldozers, compactors and front-end loaders that temporarily emit precursors of ozone (i.e., VOC or NOx), are accommodated in the emission inventories of state- and federally-required air plans and would not have a significant impact on the attainment and maintenance of ozone AAQS. However, a project that would use non-typical equipment would have the potential to result in a significant impact related to emissions of VOCs or NOx. The proposed project would employ typical construction equipment. It would not require any non-typical construction equipment or techniques that have not been accounted for in the NCCAB emissions inventories. Further, as described in **Section 4.3.3**, best management practices would be implemented during project construction in compliance with the Monterey Bay Air Resources District’s Rule 402 (Nuisance). Thus, the proposed project would not result in a significant impact related to emissions of VOCs or NOx.

The proposed project would result in a less than significant impact related to maximum daily criteria pollutant emissions during construction. Because the emissions would be below the applicable health-based significance thresholds, and because construction would be linear, with limited duration in any particular area, no adverse health effects would occur. The project would not result in a cumulatively considerable net increase of any criteria pollutant. Therefore, this impact would be **less than significant**.

Operation

Operation of the FORTAG project could generate a nominal increase in vehicle trips to and from the Trail. Although the proposed project would be expected to generate some new vehicle trips associated with people travelling to the Trail for recreational purposes, the Trail is anticipated to

primarily serve existing, local residents and would not include any new or expanded parking lots or other amenities to accommodate or encourage new vehicle trips. The project consists of a new pedestrian and bicycle facility, which may be used as a form of active transportation that could result in a net decrease in vehicle trips, and therefore emissions, compared to existing conditions as a result of the change in travel modes to bicycles by commuters.

As described in **Section 2.5**, FORTAG would traverse multiple jurisdictions. A Master Agreement would be prepared between TAMC and each underlying jurisdiction to identify maintenance responsibilities for each segment of the Trail. Presumably, maintenance of the Trail would be incorporated into existing underlying jurisdiction maintenance schedules for public facilities, and associated vehicle trips would be minimal and intermittent. Therefore, operation of the proposed project would not result in a significant increase in criteria pollutant emissions. Additionally, as described in Impact AQ-1 above, the proposed project would be consistent with the AQMP. Thus, a cumulatively considerable net increase in emissions would not occur. Therefore, this impact would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

This impact would be less than significant.

Threshold 3: Would the project expose sensitive receptors to substantial pollutant concentrations?

Impact AQ-3 THE PROJECT WOULD NOT EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

There are several residences and an elementary school located adjacent to the proposed project corridor, as described under *Sensitive Receptors* in **Section 4.3.1**. As such, proposed project construction activities would occur near sensitive receptors and potentially expose these receptors to short-term criteria pollutant emissions.

The pollutant of primary concern during construction is diesel particulate matter. However, as shown in **Table 4.3-4**, construction-related emissions associated with the proposed project would be minimal, as indicated by compliance with the PM₁₀ threshold. Emissions of PM₁₀ would be well below the MBARD threshold during all construction activities. Additionally, construction of the proposed project would be primarily linear. An individual existing receptor would be exposed to proposed project construction for only a few days at a time during each construction activity.

The MBARD threshold for PM₁₀ is established for regional compliance with the state and federal AAQS, which are intended to protect public health. Because the proposed project is below the applicable MBARD threshold, it would not contribute to regional long-term health impacts related to non-attainment of the AAQS. The MBARD has not established thresholds for the remaining pollutants; however, based on PM₁₀ emissions relative to the applicable threshold, construction emissions are minimal. The NCCAB is not in non-attainment for any other criteria pollutants. The project's short-term, temporary, and minimal construction emissions would not result in any regional non-attainment of any pollutant that could result in health impacts.

As discussed in **Section 4.3.1**, the criteria pollutants also have the potential to result in health impacts at the time of exposure, such as headaches or throat irritation. However, individual exposure levels and individual reactions to exposure to pollutant emissions from the project cannot be feasibly determined. The concentration of criteria pollutants at any given time depends on a variety of factors, including ambient traffic levels and other emissions sources, weather conditions that affect pollutant formation and dissipation, and time of day or year. Additionally, concentrations of ozone precursors in the study area do not indicate levels of ozone exposure along the project corridor because ozone is not necessarily formed at the site, as NO_x and VOC may be carried away before forming ozone (USEPA 2018). The exception for determining short-term health impacts is CO emissions from vehicle congestion, which are addressed below.

Following construction, the proposed project would not include any stationary sources or air pollutants, such as an exhaust pipe at a factory, which is a fixed emissions source. Although the proposed project would be expected to generate some new vehicle trips associated with people travelling to the Trail for recreational purposes, this increase may be balanced regionally by the potential reduction in vehicle trips as a result of the change in travel modes to bicycles by commuters. The new vehicle trips generated by the project may cause a slight increase in traffic congestion near the Trail, on local streets, such as those where Trail parking is provided. However, the offset from potential reduction of vehicle trips regionally would generally offset local congestion (see **Section 4.14, Transportation**). Therefore, the potential for slight increase in traffic delays near the Trail would generally have no impact on the regional roadway network. The project would not cause an intersection to operate at LOS E or F or worse, or reduce the reserve capacity of any unsignalized intersection. Therefore, no modeling is required to determine whether significant CO emissions would occur. The proposed project would not result in a significant impact related to a CO hotspot.

The proposed project would not result in a net increase of any other criteria pollutant during operation. Therefore, the proposed project would not significantly contribute to potential regional health impacts related to AAQS non-attainment. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations. This impact would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

This impact would be less than significant.

Threshold 4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?
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Impact AQ-4 THE PROJECT WOULD POTENTIALLY CREATE OBJECTIONABLE ODORS AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

Operation of heavy equipment during construction has the potential to result in temporary odors from diesel construction equipment exhaust. However, as shown in **Table 4.3-4**, emissions of sulfurous gases (SO_x), the main source of odors from construction equipment, would be limited (MBARD 2008). Additionally, due to the linear nature of the proposed project, an individual existing receptor would be exposed to intermittent odors from construction equipment for only a few days

at a time during each construction activity. Therefore, impacts during construction would be less than significant.

Following construction, the project would accommodate pedestrians and cyclists, who typically do not generate odors. However, the Trail would also accommodate equestrian use on side trails along a total of 1.3 miles of the Trail, as well as allow for on-leash dogs throughout the system. Generally, equestrian side paths would be located east of Marina Municipal Airport on the Northern Loop Segment, near Engineer Equipment Road on the CSUMB Loop North and Northern Loop Segments, and east of General Jim Moore Boulevard near Parker Flats Cut-Off on the National Monument Loop Segment. The portions of the Trail that would accommodate equestrian use provide short connections to other existing equestrian routes and would not result in a significant change in waste odor compared to existing conditions. Regarding dogs, it is unlikely that dogs on the Trail would generate enough uncollected waste to result in nuisance odors to residences near the Trail. However, because dog waste disposal amenities are not specifically proposed for the Trail at this time, potential odors are conservatively considered to be a potentially significant impact. Implementation of Mitigation Measure AQ-4 would provide amenities to reduce uncollected dog waste on the Trail. Although it cannot be guaranteed that all dog waste would be collected, making disposal bag dispensers and waste receptacles available along the Trail alignment would reduce likelihood that waste would be uncollected to the point of creating a nuisance to a significant number of residences or Trail users.

Mitigation Measures

AQ-4 Install Dog Waste Facilities

Trail construction shall include installation of dog waste disposal bag dispensers with a waste receptacle on all segments of the proposed Trail alignment. Dispensers and receptacles shall be provided at every amenity area where trash cans are provided. Waste disposal and bag refills shall be incorporated into the Master Agreement for Trail maintenance through Supplemental Agreements.

Significance After Mitigation

With implementation of Mitigation Measure AQ-4, this impact would be less than significant.

4.3.5 Cumulative Impact Analysis

Air quality emissions in one location contribute to regional air quality in the NCCAB. Therefore, the geographic scope for considering cumulative impacts to air quality includes the entire NCCAB, which is comprised of Monterey, Santa Cruz, and San Benito counties and covers an area of more than 5,100 square miles. Air pollutants have impacts that are often, though not always, cumulative by nature. Any new source of pollution may contribute with foreseeable future projects to violations of criteria pollutant standards if the existing background sources cause nonattainment conditions, as they do according to the state standards for ozone and particulate matter in the MBARD. Air districts manage attainment of the criteria pollutant standards by adopting rules, regulations, and attainment plans, which make up a multifaceted programmatic approach to such attainment.

The MBARD *CEQA Air Quality Guidelines* include recommendations for the analysis of cumulative impacts pertaining to ozone and localized pollutants. Inconsistency with the AQMP is considered a cumulatively adverse air quality impact. Future cumulative development would potentially exceed

the AQMP growth assumptions and result in cumulatively considerable project emissions. However, as discussed in Impacts AQ-1 and AQ-2 above, the proposed project would be consistent with the AQMP, and in fact would help to implement the plan. Therefore, based on the *MBARD Guidelines*, the FORTAG project's contribution to a cumulative air quality impact related to AQMP consistency would not be cumulatively considerable. In addition, as indicated in Impact AQ-4, the FORTAG project would not result in a cumulatively considerable contribution to congestion at study area roadways under future cumulative conditions and would not result in impacts related to CO hotspots. Because the proposed project would be consistent with the AQMP and would result in less than significant impacts pertaining to ozone and localized pollutants, the project's contribution to cumulative air quality impacts would not be cumulatively considerable.

4.4 Biological Resources

This section evaluates the potential for significant impacts to biological resources in and around the project corridor that would result from project development. Biologists conducted field reconnaissance surveys on March 28 and 29, and June 18, 19, and 20, 2019 to support the preparation of a Biological Resources Assessment (BRA). The BRA documented existing biological conditions within the project corridor (i.e., plant and wildlife species, vegetation communities, jurisdictional waters, wildlife movement areas and other sensitive habitats) and assess the potential for significant impacts to biological resources as a result of project implementation. The BRA was completed by Rincon Consultants, Inc. in July 2019, and is included as **Appendix C**. A summary of the results of the BRA are presented in this section, and the impacts analysis presented in this section is based on the findings of the BRA. The biological study area defined in the BRA is equivalent to the study area defined in **Section 2, Project Description**, and utilized throughout this EIR and comprises approximately 762 acres.

4.4.1 Existing Conditions

Existing conditions in the 762.7 acre biological study area were assessed based on a review of background literature, aerial imagery, and the results of the reconnaissance surveys. This information was compiled into maps and written descriptions of vegetation communities that form the foundation of the analysis for special status species potential to occur. The presence of any sensitive vegetation communities, jurisdictional areas or other special status biological resources within the study area was documented as part of the analysis and is included in maps and the technical discussions. Based on the types and condition of vegetation communities present within the study area, Rincon conducted a habitat assessment for special status species and made determinations regarding the potential for special status species to occur within the study area.

The study area is located at the southern end of Monterey Bay in Monterey County, within the Central California Coast Ecoregion. Elevations within the study area range from approximately 15 to 520 feet (4.5 to 158.5 meters) above mean sea level (msl). The climate in this region is generally mild with an annual minimum average temperature of 48 degrees F, a maximum average temperature of 65 degrees F, and an average annual precipitation of 19.73 inches (NOAA, 2019). The topography of the study area includes coastal alluvial terraces and relatively low-lying rolling dune-like hill systems near the coast composed from stabilized sand. The portions of the study area that extend through the former Fort Ord are composed primarily of natural habitats, while portions of the study area extend into urban areas on the California State University, Monterey Bay (CSUMB) campus and in the cities of Seaside and Marina. Commercial agricultural lands border the northern portions of the study area.

Vegetation Communities and Land Cover Types

Twenty-eight (28) terrestrial vegetation communities or other land cover types were identified within the study area during field surveys. In many cases one community grades into another and the boundaries demarking these communities can be indeterminate and subject to interpretation. The limits of these vegetation communities were approximately delineated and mapped based on estimates of the percent cover of the dominant species, and often adjacent communities have the same general species composition in differencing abundances. See **Appendix C** for a complete summary of the methods, and **Figure 5 of Appendix C** for mapping of the various vegetation

communities and land cover types that occur within the study area and representative photographs of the study area. The following vegetation communities (including some subset communities) were mapped within the study area:

- Iceplant mat
- Agriculture
- Landscaped, includes:
 - Monterey cypress
 - Monterey pine
- Arroyo willow
- Bare ground/Disturbed
- Maritime Chaparral, composed of:
 - Manzanita chaparral
 - Sandmat manzanita chaparral
- Black sage scrub
- Chamise – black sage chaparral
- Chamise chaparral
- California sagebrush scrub
- Developed
- Dune scrub
- Eucalyptus
- Non-native annual grassland
- Mixed Monterey pine - oak woodland
- Coastal oak sage scrub
- Coast live oak woodland
- Ephemeral pond
- Riparian woodland
- Ruderal
- Emergent wetland
- Open water
- Burn succession
- Coyote brush scrub
- Detention basin

Non-Native Annual Grassland

The study area contains approximately 151.6 acres of non-native annual grassland, with approximately 4.7 acres occurring within the project corridor (not including options). This community is typically comprised of annual grasses and forbs introduced during and since the Spanish colonial period. This community most closely resembles the *Avena (barbara, fatua)* Semi-Natural Herbaceous Alliance described by Sawyer et al. (2009). Species composition in this community is highly variable and may contain occasional native or ornamental trees and shrubs, however non-native grasses are dominant, including wild oats (*Avena fatua* and *Avena barbata*), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis ssp. rubens*), rattail fescue (*Festuca myuros*), Italian rye (*Festuca perennis*), and foxtail barley (*Hordeum murinum var. leporinum*). Some native plant species are also present and include common yarrow (*Achillea millefolium*), sky lupine (*Lupinus nanus*) tarweeds (*Deinandra* spp.), golden stars (*Bloomeria crocea*), golden Brodiaea (*Triteleia ixioides*), soap plant (*Chlorogalum pomeridianum*), purple clarkia (*Clarkia purpurea*), purple owl's clover (*Castilleja exserta ssp. exserta*), and shooting star (*Primula clevelandii*). Patches of native perennial grasses are intermixed in some areas at low cover, and include blue wildrye (*Elymus glaucus*), valley wild rye (*Leymus triticoides*), and pine bluegrass (*Poa secunda*).

As described above, the dominant components of this vegetation type are not native to California. While some invasive plants may have been first introduced during the 16th century as Spanish explorers came to California's coast, it is likely that the majority of invasive plants were introduced after people of Old-World descent began to settle in California. Rapid land use change during the mid- to late-1800s, along with other interacting factors, accelerated the invasion of California's native grassland by species of European origin. The intensification of livestock grazing both brought

in new species for livestock forage and prompted the spread of invasive species in California grasslands (Caziarc 2012). Within the study area this community is widely distributed and was observed in all Trail segments.

Landscaped

The study area contains approximately 35.6 acres of landscape, with approximately 1.8 acres occurring within the project corridor (not including options). This land cover type is not naturally occurring and is not described in either the Holland (1986) or Sawyer et al. (2009) classification systems. It consists of primarily non-native species in ornamental plantings. Tree species found in this community are highly variable, and typically consist of either non-native (ornamental) species or native species that were planted, and not part of a natural community. The most commonly occurring tree species within this community include Monterey cypress (*Hesperocyparis macrocarpa*), eucalyptus (*Eucalyptus* spp.), Monterey pine (*Pinus radiata*), redbud (*Cercis* sp.), California sycamore (*Platanus 3acemose*), and American sweetgum (*Liquidambar styraciflua*). Bushes and shrubs in this community are variable by occurrence and include oleander (*Nerium oleander*), lantanas (*Lantana* spp.), and juniper (*Juniperus* spp.) among other ornamental species. Landscape grass species typically include turf grasses and nonnative species such as kikuyu grass (*Pennisetum clandestinum*), hairy crabgrass (*Digitaria sanguinalis*), and English daisy (*Bellis perennis*).

Monterey pine and Monterey cypress are native species considered sensitive when occurring in natural stands or woodlands; however, there are few naturally occurring stands of these species in Seaside. Most individuals present within the study area are ornamental plantings or offspring established or recruited from ornamental plantings.

This community is primarily associated with development on the western side of the study area, and was mainly observed along the Canyon Del Rey/SR 218, CSUMB Loop North, CSUMB Loop South, and the Northern Marina segments. Some isolated stands that may be remnants of natural woodland, but the history of those stands couldn't be determined, and they no longer function as a natural woodland. One such stand of Monterey cypress is present along Divarty Street between 1st and 2nd Avenues. The canopy consists of mature Monterey Cypress that appear to be the results of recruitment from a windrow planted decades ago or potentially remnants of a naturally occurring stand and no longer functions as a natural woodland.

Iceplant Mat

The study area contains approximately 51 acres of iceplant mat, with approximately 3.5 acres occurring within the project corridor (not including options). This community most closely resembles the *Carpobrotus edulis* or Other Iceplant Semi-Natural Herbaceous Stand Alliance described by Sawyer et al. (2009). Iceplant (*Carpobrotus edulis*) is a non-native invasive species, originally planted in the 1940s and 50s for landscaping and dune stabilization (USACE 1992). These perennial ground-hugging succulents form large monospecific mats (Sawyer et al. 2009). Iceplant has a Cal ICP rating of "High" for its invasive tendencies. This hardy species spreads readily from landscaped areas into dune and scrub habitats, out competing native species for space, nutrients, and moisture.

This vegetation type is strongly dominated by iceplant, and often consists of dense matted tangle many inches thick. Due to this aggressive growth form, not many other species are present in most instances. In some locations iceplant is the dominate species in the understory growing in gaps between trees or shrubs. At other locations within the study area some native species, ornamental

plantings, and bare patches were observed in this community. Within the study area this community is widely distributed and was observed in all Trail segments, and often occurs in smaller patches within other community types. Where it occurred as the dominant species over a substantial area, it was mapped as a community of its own.

Agriculture

The study area contains approximately 4.5 acres of agricultural lands, with approximately 0.4 acre occurring within the project corridor (not including options). This land cover type is not naturally occurring and is not described in either the Holland (1986) or Sawyer et al. (2009) classification systems. This land cover type includes planted crop lands and actively farmed land. Within the study area this land cover type was comprised of strawberry fields along the Northern Marina segment. This community provides foraging opportunities for some wildlife such as songbirds and bats but provides very little habitat value in terms of shelter.

Coast Live Oak Woodland

The study area contains approximately 142 acres of coast live oak woodland, with approximately 10.8 acres occurring within the project corridor (not including options). The oak woodland habitat is characterized by coast live oak trees found in monotypic stands and most closely corresponds with the *Quercus agrifolia* Woodland Alliance in the Manual of California Vegetation system (Sawyer et al. 2009). Within the study area this community is highly variable, but is generally dominated by coast live oak (*Quercus agrifolia*) with an understory that ranged from dense scrub to open and underdeveloped. Typical scrub understory constituents include scrub or chaparral species such as black sage (*Salvia mellifera*), chamise (*Adenostoma fasciculatum*), coyote brush, woolly leaf manzanita (*Arctostaphylos tomentosa*), and California sagebrush (*Artemisia californica*). In other areas, the understory was dominated by a tangle of viny herbs such as poison oak (*Toxicodendron diversilobum*) and purple fiestaflower (*Pholistoma auritum*), or annual grasses. Oak woodlands and savannas support the greatest species richness of any vegetation type in the state and are considered important habitats (Barbour et al. 2007).

This community is widely distributed and was observed within the study area along the Northern Loop, National Monument Loop, CSUMB Loop North, CSUMB Loop South, and Canyon Del Rey/218 segments.

Riparian Woodland

The study area contains approximately 6.5 acres of riparian woodland, with approximately 0.4 acre occurring within the project corridor (not including options). This vegetation community most closely corresponds with the *Quercus agrifolia* Woodland Alliance and *Alnus rhombifolia* Forest Alliance in the Manual of California Vegetation system (Sawyer et al. 2009). It primarily occurs along Canyon Del Rey Creek and consists of a canopy dominated by several riparian tree species including coast live oak, arroyo willow (*Salix lasiolepis*), and white alder (*Alnus rhombifolia*). The understory varies with location within the study area, but typically contains common riparian understory species such as stinging nettle (*Urtica dioica*) and poison oak. The riparian woodland habitat along Angelus Way includes coast redwood (*Sequoia sempervirens*) in the canopy and contains an understory dominated by English ivy (*Hedera helix*), and invasive French broom (*Genista monspessulana*) with occasional native understory herbs and ferns such as wood fern (*Dryopteris arguta*). Infestations of Himalayan blackberry (*Rubus armeniacus*), English ivy, cape ivy (*Delairea*

odorata) and garden nasturtium (*Tropaeolum majus*) are also present in a patchy distribution within the understory.

Chamise Chaparral

The study area contains approximately 13.6 acres of chamise chaparral, with approximately 0.7 acre occurring within the project corridor (not including options). This vegetation community most closely resembles the *Adenostoma fasciculatum* Shrubland Alliance described by Sawyer et al. (2009). It consists of a dense, woody shrub layer with few trees and an open canopy. Chamise (*Adenostoma fasciculatum*) is dominant, with Eastwood's manzanita (*Arctostaphylos glandulosa*), brittleleaf manzanita (*Arctostaphylos crustacea*), sticky monkey flower (*Mimulus aurantiacus*), California buckwheat (*Eriogonum fasciculatum*), oaks (*Quercus* spp.), toyon (*Heteromeles arbutifolia*), black sage (*Salvia mellifera*), and poison oak intermixed in locally varying abundances.

This community was observed along the National Monument Loop and Ryan Ranch segments.

Maritime Chaparral

Maritime chaparral classification as defined by Holland (1986) consist of sclerophyllous scrub species in sandy soils dominated by manzanita. As with other chaparral and scrub habitats within the study area, maritime chaparral was highly variable and mapped as two separate vegetation subtypes: manzanita chaparral and sandmat manzanita chaparral. The study area contains approximately 35.6 acres of manzanita chaparral, with approximately 1.8 acres occurring within the project corridor (not including options). The study area also contains approximately 1.9 acres of sandmat manzanita chaparral, with approximately 0.1 acre occurring within the project corridor.

Much of the maritime chaparral was mapped as a manzanita chaparral subtype and most closely resembles the *Arctostaphylos (crustacea, tomentosa)* Shrubland Alliance described by Sawyer et al. (2009). Within the study area, this community is primarily found on former Fort Ord lands. Maritime chaparral is a fairly open fire dependent community, and within the study area was typically dominated by woollyleaf manzanita (*Arctostaphylos tomentosa*), with black sage, coyote brush, brittleleaf manzanita (*Arctostaphylos crustacea*), toyon, and ceanothus (*Ceanothus* spp.) While similar to the chamise chaparral vegetation community, this chaparral community is distinguished by a manzanita-dominant composition. Special status plant species sandmat manzanita (*Arctostaphylos pumila*; California Rare Plant Rank [CRPR] List 1B.2) was also present in varying concentrations within the maritime chaparral mapped within the study area.

In some areas, sandmat manzanita was dominant in the shrub canopy. These areas were mapped as a sandmat manzanita chaparral subtype and most closely resembles the *Arctostaphylos pumila* Provisional Shrubland Alliance described by Sawyer et al. (2009). In this community, the shrub canopy was dense and low, dominated by sandmat manzanita with lesser components of black sage, chamise, ceanothus and coyote brush. Sandmat manzanita typically occurred in locally concentrated patches compared to the more widespread manzanita chaparral subtype. Maritime chaparral community occurs primarily on the former Fort Ord and were observed in the study area along the National Monument Loop segment.

Black Sage Scrub

The study area contains approximately 55.2 acres of black sage scrub, with approximately 3.3 acres occurring within the project corridor (not including options). This vegetation community most closely resembles the *Salvia mellifera* Shrubland Alliance described by Sawyer et al. (2009). Black

sage scrub within the study area is dominated by black sage, with lesser components of chamise, California sagebrush, manzanita, and coyote brush. This vegetation community is similar to chamise chaparral, with black sage as the dominant component the shrub canopy. Black sage scrub was generally quite dense and mature, within the study area with the shrub canopy standing over five feet in height in many places. In many places this habitat type transitioned to intergrade between similar vegetation communities including chamise chaparral, California sagebrush scrub, and coyote brush scrub. This community was only observed at the southern end of the National Monument Loop segment and the Ryan Ranch segment; however, the same primary constituents of this community were present in varying concentrations throughout much of the study area.

Chamise – Black Sage Chaparral

The study area contains approximately 24.5 acres of chamise - black sage chaparral, with approximately 1.3 acres occurring within the project corridor (not including options). This vegetation community is primarily present within the study area in areas where the black sage scrub community interfaces with the chamise chaparral community. This vegetation community most closely resembles the *Adenostoma fasciculatum* - *Salvia mellifera* Shrubland Alliance described by Sawyer et al. (2009). Chamise – black sage chaparral is characterized by chamise and black sage as co-dominant in the shrub canopy with lesser components of ceanothus, California sagebrush, manzanita, and coyote brush throughout. This community was only observed at the southern end of the National Monument Loop segment.

California Sagebrush Scrub

The study area contains approximately 12.4 acres of California sagebrush scrub, with approximately 0.9 acre occurring within the project corridor (not including options). This vegetation community most closely resembles the *Artemisia californica* Shrubland Alliance described by Sawyer et al. (2009). It is dominated by California sagebrush, and generally includes smaller shrub species such as coyote brush, monkey flower, and deer weed (*Acmispon glaber*), with annual grasses or herbs in the opening between shrubs. Although it contains constituents of the chaparral communities, this vegetation type is typically more open and low-lying than the chaparral observed in the study area. This community is typically located in openings within the coast live oak woodland and along the existing foot paths within the study area along the Northern Loop and Northern Marina segments.

Coyote Brush Scrub

The study area contains approximately 27 acres of coyote brush scrub, with approximately 1.9 acres occurring within the project corridor (not including options). This vegetation community most closely resembles the *Baccharis pilularis* Shrubland Alliance described by Sawyer et al. (2009). The shrub canopy is dominated by coyote brush but in many places within the study area contains other shrubs such as deer weed, and California sagebrush, and occasional coast live oak trees. The shrub canopy is generally relatively open with a scattered distribution of shrubs with annual grasses such as wild oats and bromes, and annual herbs such as filaree (*Erodium cicutarium*) and in gaps between shrubs. This community was observed within the study area along the Northern Loop and Northern Marina segments.

Dune Scrub

The study area contains approximately 42.7 acres of dune scrub, with approximately 1.6 acres occurring within the project corridor (not including options). This vegetation community most

closely resembles the *Lupinus albifrons* Shrubland Alliance described by Sawyer et al. (2009). It consists primarily of relatively low-lying shrub species such as California buckwheat, mock heather (*Ericameria ericoides*), silver dune lupine (*Lupinus albifrons*) and sandmat manzanita in a generally open distribution with grasses such as veldt grass (*Ehrharta calycina*), iceplant, and herbs such as beach evening primrose (*Camissoniopsis cheiranthifolia*) and sand mat (*Cardionema ramosissimum*), and bare sandy soil between shrubs. Special status plants species sandmat manzanita was observed as common within most of the dune scrub mapped within the study area. Within some localized areas, sandmat manzanita was the dominant species, but patches were too small or localized to map as sandmat manzanita scrub. Dune scrub vegetation community was primarily mapped along the National Monument Loop segment.

Coastal Oak Sage Scrub

The study area contains approximately 4.3 acres of coastal oak sage scrub, with approximately 0.3 acre occurring within the project corridor (not including options). This community is not described by Holland (1986) or Sawyer et al. (2009), but is comprised of coast live oak, California sagebrush, and coyote brush in equal dominance. The vegetation community generally formed an intergrade between coast live oak woodland and California sagebrush scrub or coyote brush scrub communities. Coast live trees were present within the tree canopy, but not at a dense enough distribution to function as a woodland. This community was observed within the study area along the Northern Loop segment.

Mixed Monterey Pine - Oak Woodland

The study area contains approximately 2.8 acres of mixed Monterey pine - oak woodland, with approximately 0.1 acre occurring within the project corridor (not including options). This community is not described by Holland (1986) or Sawyer et al. (2009); however, this vegetation community is best described by the *Quercus agrifolia – Toxicodendron diversilobum* Alliance by Sawyer et al. This vegetation community includes a wooded portion of the study area containing a canopy with coast live oak and Monterey pine occurring as codominant. The understory is fairly underdeveloped consisting mostly of bare soil and scattered shrubs such as deer weed and coyote brush, non-native grasses, and mats of iceplant. The special status plant species Monterey spineflower (*Chorizanthe pungens* var. *pungens*; federally threatened) was present in localized patches within the opening between shrubs.

This vegetation community is located near the eastern terminus of Plumas Avenue within the Canyon Del Rey/SR 218 segment of the study area.

Eucalyptus

The study area contains approximately 0.4 acre of eucalyptus stands, with none occurring within the project corridor. This community is not described by Holland (1986) or Sawyer et al. (2009) but is best described by the *Eucalyptus globulus* Semi-Natural Woodland Stands by Sawyer et al. This community occurs where there are large stands of eucalyptus trees, typically blue gum eucalyptus (*Eucalyptus globulus*). Generally, these have been planted as wind brakes and have become established as monotypic stands. They function much like landscaped vegetation communities; however due their monotypic condition are herein described and mapped as a separate community type. This community was observed sporadically throughout the study area.

Open Water

The study area contains approximately 0.9 acre of open water, with none occurring within the project corridor. Fresh open water habitats occur at Roberts Lake and Laguna Grande. Originally a seasonal estuarine body of water, the Laguna Grande and Roberts Lake complex is now a freshwater marsh and two lakes. This community is not described by Holland (1986) or Sawyer et al. (2009) as it does not contain dominant vegetation. It is a portion of the Canyon Del Rey Creek that drains the 13.5 square mile Canyon Del Rey Creek watershed to the southeast. The creek flows through Laguna Grande, then into Roberts Lake, and finally into Monterey Bay. Despite the past disturbance to these lakes, wetlands, and associated communities, these habitats continue to support a variety of vegetation and wildlife. Because of this unusual setting, these coastal zone habitats are biologically and physically significant in that they represent a unique example of coastal zone plant and wildlife communities. Both coastal water bodies are frequent foraging and resting sites for resident and migrating water fowl.

Freshwater Emergent Wetlands

The study area contains approximately 1.8 acres of freshwater emergent wetland, with approximately 0.1 acre occurring within the project corridor (not including options). This vegetation community most closely resembles the *Schoenoplectus californicus* Herbaceous Alliance described by Sawyer et al. (2009). Freshwater emergent wetlands are generally dominated by hydrophytic perennial monocots. Soils within this vegetation community are typically saturated or inundated for many weeks each year. Freshwater emergent wetlands are only found along the Canyon Del Rey/SR 218 segment; at Laguna Grande and Roberts Lake, and Work Memorial Park adjacent to Canyon Del Rey Creek. At Laguna Grande and Roberts Lake freshwater marshes consist of large emergent herbaceous wetland species, including tule (*Schoenoplectus californicus*) and cattails (*Typha* spp.), which grow in a discontinuous band along the margins of both lakes in shallow waters. Soils are saturated or inundated for many weeks each year. This community also includes patches of other emergent herbaceous wetland vegetation, in which other, smaller emergent species such as rushes (*Juncus* spp.), pennywort (*Hydrocotyle ranunculoides*), spikerush (*Eleocharis macrostachya*), loosestrife (*Lythrum hyssopifolia*), rabbitsfoot grass (*Polypogon monspeliensis*), and brass buttons (*Cotula coronopifolia*) are intermixed in saturated soils at the edges of the lakes and stream. At Work Memorial Park vegetation observed in the emergent wetland was dominated by salt grass (*Distichlis spicata*), with patches of cattails (*Typha* spp.), and pampas grass (*Cortaderia selloana*) and may better fit the *Typha* (*angustifolia*, *domingensis*, *latifolia*) Herbaceous Alliance described Sawyer et al. (2009).

Ephemeral Pond

The study area contains less than 0.1 acre of ephemeral pond, with none occurring within the project corridor. This land cover type is not described by Holland (1986) or Sawyer et al. (2009) as it does not contain dominant vegetation other than duckweed (*Lemna* spp.) or mosquito fern (*Azolla* spp.). The only portion of the study area with ephemeral pond is the Frog Pond Wetland Preserve in the Canyon Del Rey/SR 218 segment. The Frog Pond is ephemeral and spring fed and generally consists of aquatic and submerged habitat for portions of the year. Vegetation along the margins of the open water pond habitat consists primarily of arroyo willow thicket, described separately below.

Developed

The study area contains approximately 103.9 acres of developed lands, with approximately 17.9 acres occurring within the project corridor (not including options). This land cover type is not naturally occurring and is not described in either the Holland (1986) or Sawyer et al. (2009) classification systems. This community consists of areas that have been modified such that most or all vegetation has been removed or only small areas of landscape vegetation are present. Parking lots, roads, sidewalks, structures, paved and unpaved pathways are included within this community. In some cases, vegetation from adjacent areas may overhang. Playgrounds, picnic areas, gravel areas, roadside pullouts, and areas of urban-related bare soil are included in this land cover type.

Ruderal

The study area contains approximately 20.3 acres of ruderal lands, with approximately 0.9 acre occurring within the project corridor (not including options). Habitats that have been heavily disturbed or altered such that natural vegetation has largely been removed are mapped as ruderal areas. These sites do not correspond well with either the Holland (1986) or Sawyer et al. (2009) classification systems. Ruderal areas have had visible disturbance of soil or vegetation and are mostly bare and colonized by weeds and disturbance-tolerant natives, such as fiddleneck (*Amsinckia* sp.), wild radish (*Raphanus sativa*), field mustards (*Hirschfeldia* spp., *Brassica* spp.), cheeseweed (*Malva parviflora*), annual grasses and filaree. The ruderal habitat is found in all segments of the study area and typically occurs along roadsides and the margins of buildings.

Arroyo Willow

The study area contains approximately 3.4 acres of arroyo willow, with approximately 0.5 acre occurring within the project corridor (not including options). This vegetation community most closely resembles the *Salix lasiolepis* Shrubland Alliance described by Sawyer et al. (2009). It occurs primarily along the margins of Frog Pond and is a dense riparian community dominated by a canopy of mature arroyo willow (*Salix lasiolepis*) trees. The mid-story canopy of this community consists of immature arroyo willow, ocean spray (*Holodiscus discolor*) and dogwood (*Cornus* sp.). The understory is generally quite developed, consisting of dense tangles of California blackberry (*Rubus ursinus*) and poison oak, cinquefoil (*Potentilla anserina*), horsetails (*Equisetum* spp.), and rushes (*Juncus* spp.).

Bare Ground/Disturbed

The study area contains approximately 7.7 acres of bare ground/disturbed lands, with approximately 0.6 acre occurring within the project corridor (not including options). This land cover type is not naturally occurring and is not described in either the Holland (1986) or Sawyer et al. (2009) classification systems. This land cover type occurs where no vegetation is present includes bare soil or sand. This land cover type was mapped where bare soils were likely the results of disturbance such as development or construction activities. This land cover type was observed sporadically throughout the study area.

Burn Succession

The Study area contains 4.75 acres of burn succession, with approximately 0.12 acre occurring within the project corridor (not including options). This area was recently burned and dominated by deer weed (*Acmispon glaber*) and annual grasses.

Summary of Vegetation Communities and Land Cover Types

Due to the location of development and urbanization focused along the coast, many of the segments along the western side of the biological study area (BSA) contain fewer natural habitats and vegetation communities. These segments are largely developed, including the CSUMB campus and cities of Seaside, Del Rey Oaks, and Marina. Conversely, the segments along the eastern side of the BSA contain more natural chaparral habitats and less development. **Table 4.4-1** provides a summary of the total acreage of each vegetation community and land cover type within each segment of the proposed alignment. **Table 4.4-2** presents this same information with the design options, minus those portions of the Trail that would be replaced by the selection of the options

Table 4.4-1 Acreage of Vegetation Communities and Land Cover Types in the FORTAG Corridor (Not Including Options)

	Northern Marina	Northern Loop	CSUMB Loop North	CSUMB Loop South	National Monument Loop	Ryan Ranch	Canyon Del Rey/SR 218
Vegetation Community*							
Non-Native Annual Grassland	0.55	3.33	0.41	0.14	0.52	0.03	
Iceplant Mat		0.05	0.20	2.03	1.07		0.15
Coast Live Oak Woodland		5.07	0.58	0.76	3.27		1.80
Riparian Woodland							0.36
Chamise Chaparral					0.54	0.28	
Maritime Chaparral			1.27		0.62		0.01
Black Sage Scrub					1.17	1.77	0.36
Chamise – Black Sage Chaparral					1.27		
California Sagebrush Scrub		0.88					
Coyote Brush Scrub	0.03	1.16					
Dune Scrub			1.63	<0.01			
Coastal Oak Sage Scrub		0.44					
Mixed Monterey Pine - Oak Woodland				0.06		<<0.01	0.01
Freshwater Emergent Wetlands							0.16
Ruderal	0.62		0.08	0.01	0.02		0.12
Arroyo Willow							0.26
Burn Succession						0.12	
Land Cover Type							
Landscaped	0.08		0.71	0.43	0.02		1.06
Agriculture	0.41						
Open Water							0.02
Detention Basin			0.03				
Developed	2.75	2.00	2.49	1.80	5.80	0.37	3.12
Bare Ground			0.40	0.04	0.08	0.02	0.06
Ephemeral Pond							<<0.01
*Eucalyptus and Ephemeral Pond do not occur in the Trail corridor.							

Table 4.4-2 Acreage of Vegetation Communities and Land Cover Types in the FORTAG Corridor (Including Options)

	Northern Marina	Northern Loop	CSUMB Loop North	CSUMB Loop South	National Monument Loop	Ryan Ranch	Canyon Del Rey/SR 218
Vegetation Community*							
Non-Native Annual Grassland	8.00	3.23	0.49	0.14	0.52	0.03	
Iceplant Mat		0.05	0.21	2.11	1.07		0.15
Coast Live Oak Woodland	0.07	5.04	0.43	0.72	3.27		1.80
Riparian Woodland							0.29
Chamise Chaparral					0.54		
Maritime Chaparral			1.66		0.62		0.01
Black Sage Scrub					1.17	1.77	0.36
Chamise – Black Sage Chaparral					1.27		
California Sagebrush Scrub		0.88					
Coyote Brush Scrub	1.03	0.86					
Dune Scrub				<0.01	1.63		
Coastal Oak Sage Scrub		0.44					
Mixed Monterey Pine - Oak Woodland				0.06		<<0.01	0.01
Freshwater Emergent Wetlands							0.19
Ruderal	0.05		0.31	0.01	0.02		0.10
Arroyo Willow	0.26						
Burn Succession						0.12	
Land Cover Type							
Landscaped	2.55		0.71	0.38	0.02		1.14
Agriculture							
Open Water							<0.01
Detention Basin			0.03				
Developed	4.11	2.06	2.23	1.78	5.80	0.37	3.33
Bare Ground			0.40	0.04	0.08	0.02	0.06
Ephemeral Pond							<<0.01
*Eucalyptus and Ephemeral Pond do not occur in the Trail corridor.							

Potentially Jurisdictional Features

There are two watersheds located within the study area: Canyon Del Rey and Salinas River (USGS 2019; CDWR 2019). The Salinas River watershed can be further split into two sub-watersheds, which are unnamed, and therefore discussed in this report based on relative location, north or south.

Potentially jurisdictional areas in the study area are generally limited to the Canyon Del Rey/218 segment, which includes Laguna Grande, Canyon Del Rey Creek, and the Frog Pond Wetland Preserve; however, isolated potential jurisdictional features such as detention basins are present at various locations within study area (**Appendix C**).

Aquatic resources present in the study area at Laguna Grande Regional Park include freshwater emergent wetlands, riparian woodlands, riverine, and lake areas. Originally a seasonal estuarine body of water, the Laguna Grande and Roberts Lake complex is now a freshwater marsh and two lakes. Canyon Del Rey Creek flows approximately 1,300 feet through Laguna Grande Park before entering the lake. A section of Canyon Del Rey Creek flows underground through culverts just south west of the park, under Fremont Boulevard and a shopping center. South east of the shopping center Canyon Del Rey Creek is a channelized stream which flows through Work Memorial Park. Adjacent to the stream in the park is a wetland area, likely fed by culverts under SR 218 which appear to flow year-round and may be fed by a seep/spring. The creek then flows along the south side of Angelus Way where there are several driveway bridges over the stream and escaped ornamental vegetation. At the end of Angelus Way, the creek flows along the south side of Del Rey Park before flowing under SR 218 from the Frog Pond Wetland Preserve. In its upper reaches the creek is ephemeral. On the east side of SR 218 the creek is channelized along the edge of the road.

The Frog Pond is fed by the above described channelized reach of Canyon Del Rey Creek, a tributary to Canyon Del Rey Creek, and springs and runoff from the surrounding neighborhoods (CSUMB 2014). The pond typically dries up in late summer. The tributary to Canyon Del Rey Creek flows into the pond through a culvert under General Jim Moore Boulevard. This tributary drains a small canyon south of South Boundary Road. The study area and Canyon Del Rey/SR 218 segment run along the northern side of the canyon.

Several stormwater detention basins were observed in the study area; west of General Jim Moore Boulevard, south of 9th Street east of SR 1, on the northwest side of California Avenue, and northeast of Estrella Del Mar Way. All of these detention basins are constructed and regularly maintained. No wetland vegetation was observed at any of the basins during the reconnaissance survey. A formal jurisdictional delineation would be required to assess the jurisdictional limits and regulatory oversight of these features.

The above described features are potentially subject to U.S. Army Corps of Engineers (USACE), Regional Water Quality Control; Board (RWQCB), California Department of Fish and Wildlife (CDFW), and California Coastal Commission (CCC) oversight. The lakes and many of the wetlands are permanently wet and have a direct hydrologic connection to the Pacific Ocean (a traditional navigable water as defined by USACE). The USACE is expected to assert jurisdiction under Section 404 of the Clean Water Act (CWA) over stream, lake, and wetland features to the “ordinary high water mark” (OHWM), and to the edge of those wetlands with all three criteria that define federal wetlands: hydric soils, hydrophytic vegetation, and wetland hydrology. The RWQCB also has jurisdiction over waters of the U.S. under Section 401 of the CWA. The RWQCB may also assert jurisdiction over waters of the State under the Porter-Cologne Water Quality Control Act.

The CDFW has jurisdiction over lakes, streams, and associated riparian areas under the California Fish and Game Code Section 1600 et seq. The CDFW has traditionally regulated activities within the bed and bank of lakes and streams, extending to the top of bank or edge of the riparian dripline, under its Lake and Streambed Alteration Program. The CDFW may also regulate activities conducted adjacent to but outside these areas, if the activity results in a substantial alteration of the stream or lakebed downslope of the activity, such as through placement of materials that wash into a water body.

Special Status Species

Special Status Plants

Fifty-six (56) special status plant species known to occur in the region were evaluated for their potential to occur in the study area (Appendix C). Only 12 special status plant species could be excluded based on the lack of species-specific habitat features within the study area. Six special status species were observed during the reconnaissance survey. A total of 38 special status plant species have potential to occur within the study area (**Table 4.4-3**). The ten plants that are federally and/or state listed as endangered or threatened are discussed in detail.

Table 4.4-3 Special Status Plant Species with Potential to Occur in the Study Area

Common Name	Scientific Name	Status
Low Potential to Occur		
Hutchinson’s larkspur	<i>Delphinium hutchinsoniae</i>	CRPR 1B. 2
Umbrella larkspur	<i>Delphinium umbraculorum</i>	CRPR 1B. 3
Pinnacles buckwheat	<i>Eriogonum nortonii</i>	CRPR 1B. 3
Beach layia	<i>Layia carnosa</i>	Federal and state endangered
Tidestrom’s lupine	<i>Lupinus tidestromii</i>	Federal and state endangered
Carmel Valley bush-mallow	<i>Malacothamnus palmeri</i> var. <i>involutus</i>	CRPR 1B. 2
Carmel Valley malacothrix	<i>Malacothrix saxatilis</i> var. <i>arachnoidea</i>	CRPR 1B. 2
Monterey clover	<i>Trifolium trichocalyx</i>	Federal and state endangered
Moderate Potential to Occur		
Vernal pool bent grass	<i>Agrostis lacuna-vernalis</i>	CRPR 1B.1
Jolon clarkia	<i>Clarkia jolonensis</i>	CRPR 1B. 2
San Francisco collinsia	<i>Collinsia multicolor</i>	CRPR 1B. 2
Hospital Canyon larkspur	<i>Delphinium californicum</i> ssp. <i>interius</i>	CRPR 1B. 2
Menzies’ wallflower	<i>Erysimum menziesii</i>	Federal and state endangered
Point Reyes horkelia	<i>Horkelia marinensis</i>	CRPR 1B. 2
Contra Costa goldfields	<i>Lasthenia conjugens</i>	CRPR 1B. 1
Oregon meconella	<i>Meconella oregana</i>	CRPR 1B. 1
Marsh microseris	<i>Microseris paludosa</i>	CRPR 1B. 2
Choris’ popcornflower	<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>	CRPR 1B. 2
Hickman’s cinquefoil	<i>Potentilla hickmanii</i>	Federal and state endangered
Angel’s hair lichen	<i>Ramalina thrausta</i>	CRPR 2B. 1

Common Name	Scientific Name	Status
Pine rose	<i>Rosa pinetorum</i>	CRPR 1B. 2
Santa Cruz microseris	<i>Stebbinsoseris decipiens</i>	CRPR 1B. 2
Santa Cruz clover	<i>Trifolium buckwestiorum</i>	CRPR 1B. 1
Saline clover	<i>Trifolium hydrophilum</i>	CRPR 1B. 2
Pacific Grove clover	<i>Trifolium polyodon</i>	CRPR 1B. 1
High Potential to Occur		
Hooker's manzanita	<i>Arctostaphylos hookeri</i> ssp. <i>hookeri</i>	CRPR 1B. 2
Toro manzanita	<i>Arctostaphylos montereyensis</i>	CRPR 1B. 2
Pajaro manzanita	<i>Arctostaphylos pajaroensis</i>	CRPR 1B. 1
Pink Johnny-nip	<i>Castilleja ambigua</i> var. <i>insalutata</i>	CRPR 1B. 1
Congdon's tarplant	<i>Centromadia parryi</i> ssp. <i>congdonii</i>	CRPR 1B. 1
Fort Ord spineflower	<i>Chorizanthe minutiflora</i>	CRPR 1B. 2
Robust spineflower	<i>Chorizanthe robusta</i> var. <i>robusta</i>	Federally endangered
Seaside bird's-beak	<i>Cordylanthus rigidus</i> ssp. <i>littoralis</i>	State endangered
Eastwood's goldenbush	<i>Ericameria fasciculata</i>	CRPR 1B. 1
Sand-loving wallflower	<i>Erysimum ammophilum</i>	CRPR 1B. 2
Kellogg's horkelia	<i>Horkelia cuneata</i> var. <i>sericea</i>	CRPR 1B. 1
Northern curly-leaved monardella	<i>Monardella sinuata</i> ssp. <i>nigrescens</i>	CRPR 1B. 2
Yadon's rein orchid	<i>Piperia yadonii</i>	Federally endangered
Present		
Monterey spineflower	<i>Chorizanthe pungens</i> var. <i>pungens</i>	Federally threatened
Monterey gilia	<i>Gilia tenuiflora</i> ssp. <i>arenaria</i>	Federally endangered and state threatened
Hickman's onion	<i>Allium hickmanii</i>	CRPR 1B.2
Sandmat manzanita	<i>Arctostaphylos pumila</i>	CRPR 1B. 2
Monterey cypress (Landscaped)	<i>Hesperocyparis macrocarpa</i>	CRPR 1B. 2
Monterey pine (Landscaped)	<i>Pinus radiata</i>	CRPR 1B. 1

CRPR (CNPS California Rare Plant Rank)

1A=Presumed Extinct in California

1B=Rare, Threatened, or Endangered in California and elsewhere

2A=Plants presumed extirpated in California, but more common elsewhere

2B=Plants Rare, Threatened, or Endangered in California, but more common elsewhere

CRPR Threat Code Extension

.1=Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)

.2=Fairly endangered in California (20-80% occurrences threatened)

.3=Not very endangered in California (<20% of occurrences threatened)

BEACH LAYIA

Beach layia (*Layia carnosa*) is a succulent annual herb belonging to the sunflower family (Asteraceae). As a winter annual, *Layia carnosa* germinates during the rainy season between fall and mid-winter, blooms in spring (April to June), and completes its life cycle before the dry season. Beach layia is restricted to coastal openings in coastal sand dunes ranging in elevation from 0 to over 100 feet, where it colonizes sparsely vegetated, semi-stabilized dunes and blowouts. The species often occurs in narrow bands of moderately disturbed habitat along the edges of trails and roads.

Suitable sandy soils and coastal sand dunes habitat is present within the study area. There are two known occurrences, at Point Pinos and Asilomar recorded in the CNDDDB. This species is most likely to occur in the coastal dunes along the National Monument Loop segment on the former Fort Ord or the western terminus of the CSUMB Loop South segment.

TIDESTROM'S LUPINE

Tidestrom's lupine (*Lupinus tidestromii*) is a creeping perennial herb and belongs to the pea family (Fabaceae). Tidestrom's lupine is found in the coastal dune communities of California and thrives in areas of moderate disturbance and shifting dune dynamics. It occurs in the mild maritime climate of the central California coast on partially stabilized dune communities. It is found in three disjunct areas: throughout the northern portion of the Monterey Peninsula in Monterey County, near Half Moon Bay, and from the northwest portion of Marin County at Point Reyes National Seashore to the Russian River, Sonoma County.

Marginal dune habitat is present within the dune scrub community within study area. There are five known occurrences within five miles of the study area distributed among three locations: Pt. Pinos, Asilomar, and Spanish Bay. This species is most likely to occur in the dune scrub along the National Monument Loop segment on the former Fort Ord or the western terminus of the CSUMB Loop South segment.

MONTEREY CLOVER

Monterey clover (*Trifolium trichocalyx*) is a many-branched prostrate annual herb of the pea family (Fabaceae). It is a classic fire follower, taking advantage of reduced forest cover that allows a significantly higher proportion of light to reach the herbaceous ground cover for the first few years after a fire. This species is mostly found in closed-cone coniferous forests and in openings and recently burned areas or along roadsides. Monterey clover tends to occur in sandy soils and blooms from April through June.

Suitable coniferous forest habitat is present but limited within the study area. Additionally, the burn success community in the southern extent of the Ryan Ranch segment of the BRA could provide suitable habitat. There are eight known occurrences within five miles of the study area, all of which occur in the Del Monte Forest.

MENZIES' WALLFLOWER

Menzies' wallflower (*Erysimum menziesii*) is a member of the mustard family (Brassicaceae). Its life history is that of a semelparous (monocarpic) perennial, meaning that it flowers and produces fruit only once during its lifespan, after which it dies. Blooming typically occurs from March through April, although it may begin as early as late February. Menzies' wallflower occurs in the dune mat

community, on the flanks or crests of dunes, in open sandy areas, on sparsely vegetated dunes, and in the borders of lupine scrub (Botanica Northwest Associates 1992 as cited in USFWS 2008).

Limited coastal dune or coastal strand habitat is present in some areas of the study area. There are eight known occurrences within five miles of the study area. This species is most likely to occur in dune scrub habitat along the National Monument Loop segment or near the coast on the CSUMB Loop North and CSUMB Loop South segments.

HICKMAN'S CINQUEFOIL

Hickman's cinquefoil (*Potentilla hickmanii*) is a small, long-lived, herbaceous perennial in the rose family (Rosaceae). The species is currently known from two native populations. On a broad scale, habitat for Hickman's cinquefoil has been described as coastal terrace prairie (Holland 1986, Stromberg et al. 2001) and valley grassland (Holland and Keil 1990). On a finer scale, these grasslands would be described as belonging to various vegetation series including the California oatgrass series (Sawyer and Keeler-Wolf 2009). In Monterey County, Hickman's cinquefoil is found within a degraded meadow in an opening within a Monterey pine forest.

Marginal Monterey pine forest habitat is present but limited within the study area; however, Monterey pine habitat typically occurs within a landscape vegetation community context, and suitable meadow habitat within such is limited to absent. There are two known occurrences within five miles, both of which occur in Pacific Grove. This species has a low potential for occurrence, but is most likely to occur along the National Monument Loop, CSUMB Loop South, CSUMB Loop North, and Northern Loop segments where landscaped Monterey pine forest and mixed oak and Monterey pine woodland is present.

ROBUST SPINEFLOWER

Robust spineflower (*Chorizanthe robusta* var. *robusta*) is a prostrate winter-spring annual herb in the buckwheat family (Polygonaceae). It is found in open sandy areas away from dense competitive plants in active dunes and stabilized ancient dune areas, primarily north of the former Fort Ord in Santa Cruz County. This species grows in sandy soils associated with active coastal dunes and inland sites with sandy soils. Plant communities that support this species include coastal dune, coastal scrub, grassland maritime chaparral, and oak woodland communities. Robust spineflower tends to be located in the openings between dominant elements in these communities (e.g., scrub, shrub, oak trees, clumps of herbaceous vegetation).

No occurrences have been reported to the CNDDDB within five miles of the study area; however, several individuals were observed in dune habitat on the former Fort Ord and this species was included in the HMP and BO but has not been seen since and may have been misidentified (USACE 2017). This species is most likely to occur within dune scrub habitat along the National Monument Loop and Northern Loop segments on the former Fort Ord.

SEASIDE BIRD'S-BEAK

Seaside bird's beak (*Cordylanthus rigidus* ssp. *littoralis*) is a bushy annual herb in the figwort family (Scrophulariaceae). It flowers in the summer and insect pollinated to produce small seeds that are dropped or shaken by wind from their capsule. This species grows in sandy soils of stabilized dunes covered by closed-cone pine forest, cismontane woodland, maritime chaparral, coastal scrub, and grasslands. Seaside bird's-beak thrives in areas of recent surface soil disturbance or in areas with reduced levels of competition from shrubs and herbaceous plants.

Suitable habitat is present throughout the study area in the sandy soils of the coastal scrub and dunes. According to the CNDDDB, there are 13 known or historic occurrences within five miles of the study area. This species is most likely to occur along the National Monument Loop and Northern Marina segments.

YADON'S REIN ORCHID

Yadon's rein orchid (*Piperia yadonii*) is a slender perennial herb in the orchid family (Orchidaceae) that grows from an underground caudex/corm from the early spring through summer and recedes into dormancy during the late summer through winter. Plants may produce only vegetative growth for several years before first producing flowers (Rasmussen 1995). The blooming season is fairly short, with the first flowers opening mid- to late-June and blooming generally completed by early August. Recent data suggest that only a small percentage (typically 2 to 5 percent) of individuals in a population may flower in any year (Allen 1996).

The species is endemic to Monterey County and has been found in two primary habitat types, Monterey pine forest and chaparral, but is also found in coastal scrub and in grasslands mixed with planted Monterey pines. In Monterey pine forest habitat, the species appears to favor a predominantly herbaceous understory typically under the perimeter canopy of evergreen huckleberry (*Vaccinium ovatum*) and woollyleaf manzanita. In chaparral, the species is typically found on rocky outcroppings, in sandy areas or eroded ridgetops where the soil is shallow, growing beneath dwarfed Hooker's manzanita shrubs (Morgan and Ackerman 1990; Allen 1996). Overall, this species favors a well-drained sandy soil substrate that retains moisture during the rainy season but is not subject to inundation.

Critical habitat for this species was designated on October 24, 2007 and includes areas throughout the study area. Suitable habitat is present in the Monterey pine forest and chaparral located throughout the study area. There are 11 known occurrences within five miles of the study area and this species is known to occur on the former Fort Ord. Two species of piperia were detected within the study area during the reconnaissance surveys: Mountain piperia (*Pieria transversa*) and Mike's rein orchid (*Piperia michaelii*). Yadon's rein orchid is most likely to occur along the National Monument Loop and Northern Loop segments that run through the former Fort Ord.

MONTEREY SPINEFLOWER

Monterey spineflower (*Chorizanthe pungens* var. *pungens*) is a prostrate annual species in the buckwheat family (Polygonaceae). Seeds typically germinate after the onset of winter rains and plants can be found above ground as early as December (Fox et al. 2006). Flowering occurs from late March to June, depending on weather patterns, and seed is dispersed in mid-summer. The species colonizes open sandy sites and tends to invade roadsides and firebreaks. It is found in maritime chaparral, coast live oak woodland, coastal scrub, grassland, and coastal dune habitats. Monterey spineflower occurs along the coast of southern Santa Cruz and Monterey counties and inland to the coastal plain of the Salinas Valley.

Critical habitat was designated for this species on May 29, 2002 and revised on January 9, 2008 and includes area on the former Fort Ord within the study area. There are known occurrences of Monterey spineflower that cover most of the former Fort Ord, the Marina Airport, and dunes west of SR 1. These occurrences extend across the Trail alignments for most of the reach within the former Fort Ord. This species was observed in many locations during the reconnaissance surveys, primarily in open and disturbed habitats.

MONTEREY GILIA

Monterey gilia (*Gilia tenuiflora* ssp. *arenaria*) is a small, erect annual plant in the phlox family (Polemoniaceae), endemic to the Monterey Bay area of Monterey County, California. Monterey gilia typically germinates from December to February. It can self-pollinate as well as outcross, and fruit is set from the end of April to the end of May. The plant occurs along trails and roadsides, on the cut banks of sandy ephemeral drainages, in recently burned chaparral, and in other disturbed patches. It appears to do well on sites that have undergone recent substrate disturbance. Most populations are small and localized.

Monterey gilia is generally found in the fog belt area but extends to inland areas as well. Along the coast Monterey gilia is found on rear dunes, near the dune summit in level areas, and on depressions or slopes in wind-sheltered openings in low-growing dune scrub vegetation. It does not occur in areas exposed to strong winds and salt spray. On ancient dune soils, which extend inland, it occurs in openings among maritime chaparral, coastal sage scrub, oak woodlands, grasslands, and where other vegetative cover is low.

This species is known from 28 occurrences within five miles of the study area and one large population (over 1,700 individuals) is mapped within the project corridor just north of Watkins Gate Road.

This species was observed within the CSUMB Loop North segment during reconnaissance surveys.

Special Status Animals

Thirty-seven (37) special status animal species known to occur in the region were evaluated for their potential to occur on the project site (**Appendix C**). Only 16 special status animal species could be excluded based on the lack of species-specific habitat features present within the study area. These species generally occur in marine habitats or the study area is outside of the species' known ranges. Twenty (20) special status animal species have some potential to occur in the study area (**Table 4.4-4**), and are discussed in further detail.

Table 4.4-4 Federal and State Listed Animals with Potential to Occur in the Study Area

Common Name	Scientific Name	Status
Low Potential to Occur		
Pallid bat	<i>Antrozous pallidus</i>	SSC
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	SSC
Moderate Potential to Occur		
Smith's blue butterfly	<i>Euphilotes enoptes smithi</i>	FE
California red-legged frog	<i>Rana draytonii</i>	FT
Coast Range newt	<i>Taricha torosa</i>	SSC
Tricolored blackbird	<i>Agelaius tricolor</i>	ST
Golden eagle	<i>Aquila chrysaetos</i>	FP, WL
High Potential to Occur		
Northern California legless lizard	<i>Anniella pulchra</i>	SSC
Western pond turtle	<i>Emys marmorata</i>	SSC
Two-striped gartersnake	<i>Thamnophis hammondi</i>	SSC
California tiger salamander	<i>Ambystoma californiense</i>	FT/ST
Cooper's hawk	<i>Accipiter cooperii</i>	WL
Burrowing owl	<i>Athene cunicularia</i>	SSC
Ferruginous hawk	<i>Buteo regalis</i>	WL
White-tailed kite	<i>Elanus leucurus</i>	FP
California horned lark	<i>Eremophila alpestris actia</i>	WL
American badger	<i>Taxidea taxus</i>	SSC
Monterey dusky-footed woodrat	<i>Neotoma fuscipes luciana</i>	SSC
Present		
Coast horned lizard	<i>Phrynosoma blainvillii</i>	SSC
Northern harrier (foraging)	<i>Circus cyaneus</i>	SSC
SSC = CDFW Species of Special Concern	FP = State Fully Protected	WL = State Watch List
FT = Federal Threatened	FE = Federal Endangered	ST = State Threatened

SMITH'S BLUE BUTTERFLY

Smith's blue butterfly (*Euphilotes enoptes smithi*) occur in scattered populations in association with coastal dune, coastal scrub, chaparral, and grassland habitats (Scott 1986). They spend their entire lives in association with two host buckwheat plants: cliff buckwheat (*Erigonum parviflorum*) and seaside buckwheat (*E. latifolium*). Both buckwheat host plants are utilized as larval and adult food plants.

There are six known occurrences of this species within five miles of the study area. Four of these occurrences are recorded along the beaches and dunes west of the study area. The coastal dunes and coastal scrub habitats in the former Fort Ord provide suitable sandy soils and vegetation. The majority of suitable habitat for this species is present along the National Monument Loop, Northern Loop, and Northern Marina segments, and the potential for this species to occur is limited to those areas of the study area where suitable habitat including seaside buckwheat and cliff buckwheat occur.

CALIFORNIA TIGER SALAMANDER

California tiger salamander (CTS) is a federally and state threatened species found primarily in grasslands and low foothill and oak woodland habitats located within approximately 2,200 feet (671 meters [m]) of breeding pools (Trenham and Shaffer 2005). CTS breed in long-lasting rain pools (e.g., seasonal ponds, vernal pools, slow-moving streams) that are often turbid, and occasionally in permanent ponds lacking fish predators. Adults spend 90 percent of their lives underground. Potential and known breeding habitat includes wetland and open water habitats. During the non-breeding season, adults occur in upland habitats and occupy small mammal burrows (ground squirrel, pocket gopher, etc.) and other subterranean cover (e.g., cracks, root hollows, etc.). They migrate nocturnally to aquatic sites to breed during relatively warm winter or spring rains. Juveniles emigrate at night from the drying pools to upland refuge sites, such as rodent burrows and cracks in the soil.

There are 29 known occurrences of this species within five miles of the study area. Most of these occur west of the National Monument Loop and Northern Loop segments. The nearest CNDDB record for this species overlaps the study area at the intersection of Inter-Garrison Road and Reservation Road, where breeding was observed at detention basin. Suitable marginal breeding habitat is present within the study area where detention basins are located, however the basins are generally surrounded by development which would be a significant barrier for movement. Most of the study area does not provide suitable breeding habitat; however, the species could occur in suitable upland habitat within 1.3 miles of potential CTS breeding habitat. Potential breeding habitat within 1.3 miles of the study area is generally limited to a handful of detention basins within Seaside, and known or potential breeding ponds, mostly located on FORA lands, currently owned by FORA, to the east (Appendix C). Upland grassland habitat within 1.3 miles of these sites has potential to support CTS, and the species is most likely to occur in these habitats along the National Monument Loop and Northern Loop segments where they are within dispersal distance from known or potential breeding sites.

CALIFORNIA RED-LEGGED FROG

California red-legged frog (CRLF) is a federally threatened species that occurs in lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. It typically inhabits quiet pools of streams, marshes, and ponds. All life history stages are most likely to be encountered in and around breeding sites, which include coastal lagoons, marshes, springs, permanent and semi-permanent natural ponds, and ponded and backwater portions of streams, as well as artificial impoundments such as stock ponds, irrigation ponds, and siltation ponds. Eggs are typically deposited in permanent pools, attached to emergent vegetation. This species typically requires 11 to 20 weeks of permanent water for larval development and must have access to estivation habitat. Suitable upland habitat must provide sufficient moisture to prevent desiccation and sufficient cover to provide protection from predators. Typical upland habitat consists of downed woody vegetation, leaf litter, and small mammal burrows, densely vegetated areas, and even, man-made structures (i.e., culverts, livestock troughs, spring-boxes, abandoned sheds) (USFWS 2002a).

There are 29 known occurrences of this species within five miles. Most of these occur along the Carmel River, which is more than three miles south of the study area, at a distance too far to disperse into the study area. One occurrence was reported from the Salinas River, north of the Northern Marina segment. Suitable habitat is present at Roberts Lake, Laguna Grande, and the Frog Pond Wetland Preserve where ponded water and emergent aquatic vegetation are perennially

present. Suitable upland habitat is present immediately adjacent to the Roberts Lake, Laguna Grande, and Frog Pond in willow riparian habitat.

Upland habitat within the remainder of the study area is generally marginal or unsuitable for long term usage: ephemeral or intermittent drainages are dry for most of the year, and surrounding lands, including those near potential CTS breeding sites (**Appendix C**), are too xeric to provide suitable upland habitat. Urban development in the western part of the study area inhibits the dispersal of CRLF from one site to another.

COAST RANGE NEWT

Coast range newt is a CDFW species of special concern that inhabits terrestrial habitats such as oak woodlands, annual grassland, and chaparral where sufficient moisture is present. As adults they will migrate over 0.62 mile to breed in ponds, reservoirs and slow-moving streams. There are currently no CNDDDB records for the coast range newt within five miles of the study area. However, the study area is within the known range of the species and suitable terrestrial and ponded habitats are present within the Roberts Lake, Laguna Grande, and the Frog Pond areas of the study area.

WESTERN POND TURTLE

Western pond turtle is a CDFW species of special concern that is found in ponds, lakes, rivers, creeks, marshes, and irrigation ditches, with abundant vegetation. It requires basking sites of logs, rocks, cattail mats, or exposed banks. Western pond turtle is active from approximately February to November. It will estivate during summer droughts by burying itself in soft bottom mud. When creeks and ponds dry up in summer, some turtles will travel along the creek until they find an isolated deep pool, others stay within moist mats of algae in shallow pools, and many turtles move to woodlands above the creek or pond and bury themselves in loose soil. Pond turtle will overwinter underground until temperatures warm up and the heavy winter flows of the creek subside. They return to the creek in the spring.

Suitable habitat for this species is present at Laguna Grande and the Frog Pond, and Canyon Del Rey Creek may provide a corridor for movement between the two. This species is also known to occur on the former Fort Ord and other ponds within five miles of the study area. This species is most likely to occur along the Canyon Del Rey/SR 218 segment.

NORTHERN CALIFORNIA LEGLESS LIZARD

The northern California legless lizard is CDFW species of special concern that is typically found in coastal dune, valley-foothill chaparral, and coastal scrub vegetation communities, and areas with sandy or loose organic soils or high amounts of leaf litter. The species prefers moist warm loose soil with plant cover, and moisture is an essential component of their habitat requirements (California Herps 2019). Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands.

California legless lizards have been documented within five miles of the study area. Most of the 39 occurrences recorded are along the beaches west of the study area. Suitable soils and shrubby habitat are present in open coast scrub and dunes at the former Fort Ord; however, these areas may lack sufficient moisture for the species.

COAST HORNED LIZARD

Coast horned lizard is a CDFW species of special concern that is found in grasslands, coniferous forests, woodlands, and chaparral, in open areas of sandy or loose soil. Horned lizards are active

above-ground between April and October, with most activity concentrated between April and June. During the remainder of the year they aestivate underground in mammal burrows or rock crevices or beneath objects such as boulders and logs. Horned lizard diets are specialized and almost exclusively consist of native ants (>94 percent by prey item [Suarez et al. 2000]). There are currently no CNDDDB records for the coast horned lizard within five miles of the study area. However, the study area is within the known range of the species and suitable grassland and woodland habitats and sandy soils are present within the study area. The species was observed in the National Monument Loop segment during the reconnaissance survey. The species has potential to occur anywhere in the study area with suitable sandy open areas but is unlikely to occur in the more developed segments where dispersal barriers (roads, commercial and residential development, etc.) reduce the ability for the species to access isolated patches of suitable habitat.

TWO-STRIPED GARTER SNAKE

The two-striped garter snake is a CDFW species of special concern that occurs from Monterey County south along the coast, mostly west of the South Coast Ranges, into San Diego County west of the Peninsular Ranges. It is primarily an aquatic species that occurs near ponds, pools, creeks, cattle tanks, and other sources of water within oak woodland, chaparral, scrub communities, and coniferous forest habitats. It is often found in rocky areas also. Depending upon weather conditions, two-striped garter snake can be active during January through November and typically breeds March through April.

Suitable habitat is present in the study area at Laguna Grande and the Frog Pond, and there are five known occurrences within five miles of the study area. The nearest CNDDDB record occurs just west of the Northern Marina segment. The study area is within the known range of the species and aquatic and woodland habitats are present within the study area. Due to the presence of standing fresh water at Laguna Grand and the Frog Pond, two-striped garter snake has a high potential to occur within the study area.

COOPER'S HAWK

Cooper's hawk is a state watch list species. A small raptor that breeds in oak woodlands and deciduous riparian areas, its nests are often constructed near water, and the species forages in a variety of woodland and edge habitats. An agile flier, the species is known to pursue small birds and mammals through thickets and woodlands, and generally occurs in wooded areas. During the winter months, the Cooper's hawks utilize a wider variety of habitats for foraging including open fields and grasslands.

This species was observed during surveys of the Del Rey Oaks/SR 218 segment. CNDDDB contained no records for this species; however, this species is not often reported to CNDDDB, and the species is known to occur in the region, with an abundance of observations on eBird. Suitable nesting habitat in the study area consists of oak woodland canopy and riparian areas. The study area contains suitable foraging habitat, including all woodland and annual grassland areas.

GOLDEN EAGLE

Golden eagle is a CDFW fully protected species that inhabits semi-open habitats where there is easy access to their primary prey of small to medium-sized mammals. Grasslands, deserts, savannahs, and early successional stages of forest and shrub habitats provide necessary foraging habitats. Nests are placed on cliffs or large trees and are maintained from year to year. Breeding occurs from January through August, and breeding territories range from eight to 21 square miles, or three to

five miles surrounding the nest, but activity is often concentrated in a smaller core area. Although only one nest is used each year, a territory may contain multiple alternate nests.

There are no occurrence records on the CNDDDB within five miles of the study area. The species is known to occur in the region, and there are numerous eBird reports documented within five miles of the study area. Marginally suitable nest trees occur within 0.25-mile of the study area, but the study area and immediate vicinity do not provide suitable nesting habitat for this species. This species is most likely to forage along the Northern Loop and Northern Marina segments in the open grassland and forested areas near the Trail.

BURROWING OWL

Burrowing owl is a CDFW Species of Special Concern that occupies open, treeless areas within grassland, low density scrub, and desert biomes. This species generally inhabits gently-sloping areas, characterized by low, sparse vegetation, and is often associated with high densities of burrowing mammals (Poulin et al. 2011). Burrowing owl often uses relatively disturbed areas such as agricultural fields, golf courses, cemeteries, and vacant urban lots in addition to natural breeding habitats. Nests are most often in fossorial animal burrows, such as California ground squirrel or American badger, but atypical nests such as culverts or rubble piles may also be used. Nest sites are typically selected in an area with a high density of burrows.

There are five known occurrences within five miles of the study area, and the species is known to occur in the region. The nearest CNDDDB records for this species include two occurrences that overlap the study area in the Northern Marina and CSUMB Loop North segments. Suitable habitat is present in annual grassland, low density scrub, and open spaces throughout the study area.

FERRUGINOUS HAWK

The ferruginous hawk is a CDFW watch list species. A large raptor that inhabits open habitats during the breeding season and arid to semi-arid areas of California in the winter. They prefer open grasslands for foraging and have also been observed utilizing agricultural areas. The primary prey of ferruginous hawks are mammals, including rabbits, ground squirrels, and prairie dogs, although birds and reptiles are also eaten (Bechard and Schmutz 1995). Ferruginous hawks often perch on the ground, using sit and-wait tactics to capture prey. They arrive in California between September and October and depart between February and April. They typically congregate in grasslands and deserts where mammalian prey is abundant.

The nearest CNDDDB record for this species overlaps the Northern Marina segment. There are a number of regional observations documented in eBird; however, the species is not regularly observed within Seaside or the western portion of the former Fort Ord. The majority of observations on eBird are from north of the study area at the western end of the Salinas Valley. Suitable foraging habitat is present in annual grassland, low scrub/woodlands, and open spaces.

NORTHERN HARRIER

The northern harrier is CDFW species of special concern. A ground-nesting raptor that feeds voles and other small mammals, waterfowl, other small birds, small reptiles, crustaceans and insects. They breed typically from April to September, with peak activity in June and July. Various sources differ on the breeding and non-breeding ranges of northern harriers; however, breeding in California is well documented (Larsene 1987). The study area is not within the reported breeding range for this species (Shuford and Gardali 2008), but a breeding pair was observed adjacent to the

Northern Loop and Northern Marina segments in 2016 during surveys for the Marina Municipal Airport Master Plan Initial-Study Mitigated Negative Declaration (IS-MND) (Marina 2018).. Breeding is typical in large, undisturbed tracts of wetlands and grasslands with low, thick vegetation. Foraging and breeding habitat is essentially identical and includes a variety of open habitats that provide an abundance of suitable prey and lookout perches such as shrubs or fence posts. In California this includes freshwater marshes, brackish and saltwater marshes, wet meadows, weedy borders of lakes, rivers and streams, annual and perennial grasslands (Shuford and Gardali 2008). Western populations tend to breed in dry upland habitats. During winter they use a range of habitats with low vegetation, including deserts, coastal sand dunes, pasturelands, croplands, dry plains, grasslands, old fields, estuaries, open floodplains, and marshes. round and usually in a dense clump of vegetation such as willows, grasses, sedges, reeds, bulrushes, and cattails.

Most of the study area consists of scrub and woodland habitat too dense for typical northern harrier foraging. Developed areas are also unlikely to support this species. Suitable habitat is present in the agricultural fields and larger areas of annual grasslands within, especially along the Northern Marina Segment This species was observed foraging over fields north of the Marina Municipal Airport during the reconnaissance survey.

WHITE-TAILED KITE

White-tailed kite is a CDFW fully protected species. A yearlong resident in coastal and valley lowlands, the species inhabits a wide range of habitats, mostly in cismontane California. The species prefers trees with dense canopies for cover. Their diet consists mostly of voles and other small, diurnal mammals, but the species occasionally feeds on birds, insects, reptiles, and amphibians. Typical foraging habitat is undisturbed, open grasslands, meadows, farmlands and emergent wetlands. Nesting is typically near top of dense oak, willow, or other tree stands, located near foraging areas. Preferentially selects herbaceous lowlands with a range of woodland structure, and high density of voles (Zeiner et al. 1990), and substantial groves of dense, broad-leafed deciduous trees for nesting and roosting (Zeiner et al. 1990).

The CNDDDB contains no occurrence records for white-tailed kite within five miles of the study area; however, eBird has an abundance of reports documented throughout the Monterey Bay region. The species is generally common along the coast and wooded inland areas; however, there are few records of the species in Seaside or on FORA lands. The species was observed foraging north of the Northern Loop and Northern Marina Trail segments (outside of the study area) during the reconnaissance survey. The grassland and agricultural areas within the study area provide foraging habitat, and suitable nesting habitat is present in areas of dense woodland and riparian areas of the study area.

CALIFORNIA HORNED LARK

California horned lark is CDFW watch list species. A ground-dwelling bird common in open, sparsely vegetated areas such as grasslands, deserts, and agricultural areas. They congregate in moderately sized flocks, feeding mostly on insects and other small invertebrates. The species is a ground-nester, building a small grass-lined cup in slight depressions in the open. They are year-round residents in much of California, breeding in open areas throughout their range (Zeiner et al 1990).

Two CNDDDB records for this species overlap the study area in the Northern Marina and Northern Loop segments. Records from eBird are predominantly from north and east of the study area. Annual grassland, low scrub/woodlands, and open spaces throughout the study area provide suitable breeding and foraging habitat for the species.

TRI-COLORED BLACKBIRD

Tri-colored blackbird is a state endangered species. A colonial species that is largely endemic to, and a year-round resident in California. It requires open water, protected nesting substrate, and foraging areas with insect prey within a few kilometers of the colony. The species preferentially selects breeding sites that include open accessible water with protected areas for nesting. Site generally need to support flooded nesting vegetation and suitable foraging sites within a few kilometers (Shuford and Gardali 2008).

There are nine documented occurrences recorded in the CNDDDB within five miles of the study area. There are a number of observations of the species on eBird, generally restricted to south and west of the study area. A single report of the species from Laguna Grande in in December 2018 has accompanying notes about a small flock (roughly 20 individuals) known to frequents the area around Roberts Lake, Laguna Grande and El Estero. Marginal nesting habitat is present within the emergent wetland vegetation occurring along the margins of Roberts Lake and Laguna Grande. Foraging habitat for tricolored blackbird is present at open sites near potential nesting habitat. This species has low potential to occur in nest colonies, and a moderate potential to occur foraging in the study area throughout the year.

PALLID BAT

Pallid bats are a CDFW species of special concern. They are known to inhabit deserts, grasslands, shrublands, woodlands and forests. Most commonly occur in open, dry habitats with rocky areas for roosting (caves, mines, etc.). Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Day roosts need deep cover to protect bats from high temperatures. Maternity colonies are established by early April and can vary in size from dozen to over 100 individuals (Zeiner et al. 1990).

There are no CNDDDB records for this species within five miles of the study area, but the species is known to occur throughout all of California's lower elevations. Suitable grassland and scrubland habitats are present throughout the study area. Old buildings and hollow trees throughout the study area provide suitable roosting habitat, and much of the study area provides suitable foraging habitat.

TOWNSEND'S BIG-EARED BAT

Townsend's big-eared bat is a CDFW species of special concern found throughout California in a wide variety of habitats, most commonly in mesic sites. This species is found in all but subalpine and alpine habitats, and may be found at any season throughout its range (Zeiner et al. 1990). Day and night roosts for these species can include open buildings with deep cover to protect bats from high temperatures. There are no CNDDDB records for this species within five miles of the study area. Marginally suitable roost habitat and suitable foraging habitat is present throughout the study area.

MONTEREY DUSKY-FOOTED WOODRAT

Monterey dusky-footed woodrat is a subspecies of the dusky-footed wood rat (*Neotoma fuscipes*) and a CDFW species of special concern. The Monterey dusky-footed woodrat occurs throughout Monterey and northern San Luis Obispo counties where appropriate habitat is available. Dusky-footed woodrats can be found in chaparral, streamside thickets, and deciduous or mixed woodland habitats (Burt and Grossenheider 1980). In forest habitats, they are generally found where there is moderate canopy with a dense to moderate understory. Dusky-footed woodrats construct nests

(middens) out of sticks, grass, leaves, and other debris and the availability of these nest building items may limit the abundance of woodrats (Zeiner et al. 1990).

Signs of this species and middens were observed along the National Monument Loop segment, and the species commonly occurs in the region. Suitable habitat is present throughout the study area in all woodland and dense scrub habitats. These habitats are most abundant along the National Monument Loop segment and in forested and woodland areas along the Northern Loop segment.

AMERICAN BADGER

American badger is a CDFW species of special concern that is found in dry, open habitats including grassland and open woodland. It is a highly specialized, semi-fossorial mustelid (Quinn 2008). Suitable burrowing habitat requires dry, sandy soil. The species is most abundant in drier open stages of most shrub, forest, and herbaceous habitats with suitable soils to support burrows (Zeiner et al. 1990). Breeding occurs in summer and early fall, with young being born from March to April.

There are no occurrences recorded on the CNDDDB within five miles of the study area, however this species is known to occur on the former Fort Ord (Quinn 2008) and evidence of potential badger excavations was observed during the reconnaissance survey. The sandy soils in the coastal dunes and scrub most of the natural vegetation communities within the study area provides suitable habitat for this species.

Sensitive Communities and Critical Habitat

Sensitive Communities

Plant communities are considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. CDFW ranks sensitive communities as “threatened” or “very threatened” and keeps records of their occurrences in CNDDDB. Sensitive natural communities included in the CNDDDB follow the original methodology according to “Preliminary Descriptions of the Terrestrial Natural Communities of California” (Holland 1986). The methodology for determining sensitivity continues to be revised and is now based on “the Manual of California Vegetation” (Sawyer et al. 2009). Communities considered sensitive by CDFW are published in the California Sensitive Natural Communities List (CDFW 2018). Vegetation alliances are ranked 1 through 5 based on NatureServe’s (2010) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Some alliances with the rank of 4 and 5 have also been included in the 2018 sensitive natural communities list under CDFW’s revised ranking methodology (CDFW 2018).

Ten sensitive natural communities are known to occur within the 12-quad search area (**Table 4.4-5**), three of which were observed in the study area: central dune scrub; central maritime chaparral; and coastal and valley freshwater marsh. These classifications use the old methodology, two additional natural vegetation communities found in the study area are considered sensitive (ranked 3 or below) under CDFW’s revised ranking methodology, including a variety of vegetation alliances for each of the following communities: Sandmat manzanita chaparral; and Brittleleaf – woolly leaf manzanita chaparral.

Table 4.4-5 Sensitive Natural Communities Known to Occur or with Potential to Occur within the Vicinity of the Study Area

Sensitive Natural Communities	Status	Present or Absent
Brittleleaf – woolly leaf manzanita chaparral	G3/S3	Present
Central Dune Scrub	G2/S2.2	Present
Central Maritime Chaparral	G2/S2.2	Present
Coastal and Valley Freshwater Marsh	G3/S2.1	Present
Coastal Brackish Marsh	G2/S2.1	Absent
Monterey Cypress Forest	G1/S1.2	Absent
Monterey Pine Forest	G1/S1.1	Absent
Monterey Pygmy Cypress Forest	G1/S1.1	Absent
Northern Bishop Pine Forest	G2/S2.2	Absent
Sandmat manzanita chaparral	G1/S1	Present
Northern Coastal Salt Marsh	G3/S3.2	Absent
Valley Needlegrass Grassland	G3/S3.1	Absent

G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDDB RareFind 5.

Sources: CNDDDB (CDFW 2019a)

Because of transitioning vegetation community nomenclature, some of the communities Rincon has described are equivalent to the sensitive communities listed above. The brittleleaf – woolly leaf manzanita chaparral and the sandmat manzanitas chaparral both fall under the broader category of central maritime chaparral, and all are considered sensitive natural communities. Our mapped dune scrub is equivalent to central dune scrub and is considered a sensitive community. Our mapped freshwater emergent wetland is equivalent to Coastal and Valley Freshwater Marsh and is considered a sensitive community.

Environmentally Sensitive Habitat Areas The California Coastal Commission (CCC) has jurisdiction over wetlands in the coastal zone. The CCC definition of wetlands differs somewhat from other agencies and includes lands within the coastal zone that are covered periodically or permanently with shallow water, and includes saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens (Coastal Act Section 30121). The CCC also identifies other environmentally sensitive habitat areas (ESHAs) as any area within the coastal zone in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. The cities of Monterey and Seaside each have an adopted Local Coastal Program that identifies the lakes, streams, wetlands and riparian areas in the BSA at Laguna Grande as ESHA. In addition, oak woodlands and dunes such as those in the Northern Marina segment may also meet criteria to be considered ESHA. Definitions of ESHA in neighboring jurisdictions are similar.

California Native Plant Society Plant Reserves

A series of small protection areas (nine in total) were established by the US Army in the late 1960s at the encouragement of a local member of the California Native Plant Society (CNPS) (Griffin 1976). Through the 1970s and 1980s these protection areas continued to be included on the Fort Ord

master plans and were afforded administrative protection to preserve examples of the natural habitats on Fort Ord, particularly maritime chaparral. A map from 1980 depicts ten preservation areas (US Army 1980). The 1993 Final EIR for the disposal and reuse of Fort Ord identifies 11 native plant reserves and one butterfly reserve. Critical Habitats

Six federally designated critical habitats occur with five miles of the study area:

- Tidewater goby (*Eucyclogobius newberryi*)
- steelhead - south-central California coast DPS (*Oncorhynchus mykiss irideus*, pop. 9)
- Western snowy plover
- Monterey spineflower
- California red-legged frog
- Yadon's rein orchid

Critical habitat for only a single species overlaps the study area (**Appendix C**): Federally designated critical habitat for Monterey spineflower occurs on the former Fort Ord, in areas designated for preservation under the HMP. Critical habitat unit 8 encompasses 9,432 acres, containing grasslands, maritime chaparral, coastal scrub, and oak woodlands. This critical habitat unit was designated due to the large population of Monterey spineflower and extent of dry interior maritime chaparral, to allow for population expansion. The National Monument Loop segment borders the edge of this unit west of an existing access road. The Northern Loop and Northern Marina segments cross the northern end of unit 8. The Northern Loop segment crosses between the Jerry Smith Access Corridor south of Inter-Garrison Road to south of the intersection with Reservation Road. The Northern Marina segment crosses north east of the intersection of Quebrada Del Mar Road and Tallmon Street, along an existing access road.

Wildlife Movement

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network. The California Essential Habitat Connectivity Project commissioned by the California Department of Transportation (Caltrans) and CDFW; identifies "Natural Landscape Blocks" which support native biodiversity and the "Essential Connectivity Areas" which link them (Spencer et al. 2010).

Wildlife movement corridors can be both large and small in scale. Riparian corridors and waterways including the Salinas River, Laguna Grande, Roberts Lake, and Canyon Del Rey Creek watersheds provide local scale opportunities for wildlife movement throughout the study area. Existing trails and roads within the study area also act as corridors for wildlife movement, particularly for relatively disturbance tolerant species such as fox, coyote, raccoon, skunk, deer, and bobcat. On a larger scale, both Natural Landscape Blocks and Essential Connectivity Areas are mapped within portions of the Canyon Del Rey/SR 218, Ryan Ranch, National Monument Loop, and Northern Loop segment in BIOS (CDFW 2019b). These landscape blocks and linkages connect Fort Ord National Monument at the northern extent to the Carmel Valley and the Santa Lucia Mountain Range along the coastline. The eastern portion of the study area represents a large area of relatively undisturbed

natural habitat within a broader area of similar natural habitat that extends relatively undisturbed from San Luis Obispo to the Monterey peninsula. Overall, this area represents important natural habitat for a wide range of species and supports genetic connectivity and movement along much of the central coast of California. A portion of the study area along the Northern Loop segment extending east from the CSUMB campus and following Inter-Garrison Road is within a mapped Natural Landscape Block. This landscape block extends to the east of the study area and connects to another distinct natural area just south of the study area and the Ryan Ranch segment of the alignment. The Canyon Del Rey/SR 218, Ryan Ranch, National Monument Loop, and Northern Loop segments are generally located along the edges of existing development within the cities of Marina, Seaside, Monterey, and Del Rey Oaks. There is less potential for wildlife movement in these areas due to the proximity to developed areas.

There is also some open space along the CSUMB Loop North and CSUMB Loop South segments on the CSUMB campus. These open spaces occur in patches within existing development, such as the CSUMB stadium complex, residential development, and SR 1. Movement between these areas can occur within undeveloped areas and coast live oak woodland patches scattered throughout the CSUMB Loop North and CSUMB Loop South segments on the CSUMB campus. However, these areas are not considered essential connectivity areas and most wildlife species that would utilize such connections are likely to be urban, disturbance tolerant species such as raccoon, skunk, opossum, and black tailed deer. The Monterey dusky-footed woodrat is also likely to use these areas as a small local corridor for movement.

Along the Northern Loop and Northern Marina segments there is potential for movement from the Salinas River. The riparian corridor of the Salinas River is a significant corridor for wildlife movement between the coast and inland areas of the Salinas Valley, and was identified as one of six key habitat linkages in Monterey County (Monterey County 2008). The project corridor in this area runs along the top of the bluff just above the riparian corridor.

Developed areas of the study area where the alignment would run through urban areas do not function as essential connectivity areas or as important wildlife corridors due to previous use and disturbance.

4.4.2 Regulatory Setting

Regulated or sensitive resources studied and analyzed herein include special status plant and animal species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, and locally protected resources, such as protected trees. Regulatory authority over biological resources is shared by Federal, State, and local authorities. Primary authority for regulation of general biological resources lies within the land use control and planning authority of local jurisdictions.

Definition of Special Status Species

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

- Species listed as threatened or endangered under the Federal Endangered Species Act (FESA); species that are under review may be included if there is a reasonable expectation of listing within the life of the project
- Species listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA)

- Species designated as Fully Protected, Species of Special Concern, or Watch List by the California Department of Fish and Wildlife (CDFW)
- Species designated as sensitive by the U.S. Forest Service or Bureau of Land Management, if the project would affect lands administered by these agencies
- Species designated as locally important by the Local Agency and/or otherwise protected through ordinance or local policy

Environmental Statutes

For the purpose of this report, potential impacts to biological resources were analyzed based on the following statutes. Detailed discussions of each statute is included in Appendix C.

- California Environmental Quality Act (CEQA)
- Federal Endangered Species Act (ESA)
- California Endangered Species Act (CESA)
- Federal Clean Water Act (CWA)
- California Fish and Game Code (CFGC)
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act
- Fort Ord Habitat Management Plan (HMP) (1997a)
- Fort Ord Habitat Conservation Plan (HCP) (in progress)
- FORA Base Reuse Plan (1997b)
- FORA Base Reuse Plan Reassessment (2012)
- Monterey County Municipal Code
- City of Marina Municipal Code
- California Coastal Act Marina
- City of Seaside Local Coastal Program (LCP) (2013)
- City of Seaside Municipal Code (Chapter 8.54, Trees)
- City of Seaside General Plan
- City of Monterey General Plan (2005)
- City of Monterey Municipal Code
- City of Monterey Local Coastal Program
- City of Del Rey Oaks Municipal Code
- Current 2007 California State University Master Plan
- Draft 2017 California State University Master Plan
- Monterey Peninsula Regional Parks District (MPRPD) Master Plan

Local Ordinances

Portions of the biological study area fall within the jurisdiction of Monterey County and the cities of Marina, Seaside, Monterey, and Del Rel Oaks. Portions of the project corridor are within or adjacent to areas managed by CSUMB, Fort Ord Reuse Authority, the Army, Caltrans, the University of California Santa Cruz, Pacific Gas & Electric (PG&E), and the Monterey Peninsula Regional Park

District. Some of these governing agencies provide protection for biological resources through the implementation of general plans, municipal codes, master plans, and local coastal programs

The Monterey County General Plan includes a Conservation and Open Space Element for the long-term preservation of open space and natural resources. Goal OS-1.10 recognizes the value of trails and promotes the creation of new trails on public lands. Goals OS-5.1 through 5.25 address the conservation of listed species, critical habitats, and the avoidance of significant impacts to biological resources. These goals require compliance with the ESA and CESA and consultation with USFWS and CDFW if listed species or critical habitats will be affected by new development. The County also requires that migratory bird nests be protected during the nesting season (February 1 to September 15), including preconstruction surveys and non-disturbance buffers. Policy CVS-5.1 prohibits development from encroaching on the main channels of the Salinas River and Policy CVS-5.2 requires that new recreational uses avoid encroaching on the main channel of the Salinas River in order to preserve riparian habitats. The County's municipal code provides for the preservation of oaks and other protected trees such as landmark trees (Section 21.64.260).

The City of Monterey General Plan goals and policies designed to direct conservation, development, and utilization of natural resources. Goal d, *Flora and Fauna and Marine Resources*, aims to "protect the character and composition of existing native vegetative communities. Conserve, manage, and restore habitats for endangered species, and protect biological diversity represented by special status plant and wildlife species." This is supported by policies such as Policy d.5, which states "reduce biotic impacts to a less-than-significant level on project sites by ensuring that mitigation measures identified in biotic reports are incorporated as conditions of approval for development projects."

The City of Seaside's 2004 General Plan Conservation and Open Space Element includes a policy (COS-4.3) to encourage the preservation of oak woodlands. The implementation plan (COS-4.3.1) for this policy requires project developers to "retain coast live oak trees within the planning area, including oaks within new development areas."

The Draft Seaside 2040 General Plan includes a policy for the development of an ordinance specifically for the preservation of oak trees; however, this ordinance has not yet been developed.

Additionally, the Draft 2040 General Plan requires consistency with the Fort Ord BRP. The BRP Conservation Element contains policies and programs developed for each recipient of former Fort Ord lands. Programs specific to the City of Seaside require that the City will encourage project applicants to incorporate small pockets of habitat containing HMP species where feasible. Programs specific to the preservation of oak woodlands include:

- The City shall adopt an ordinance to address the preservation of oak trees. This ordinance shall include restrictions on the removal of oak trees of a certain size, tree permit requirements, and requirements for relocation or replacement of oaks removed (C-2.1).
- The City shall require project applicants to submit project plans showing: 1) the location of all existing trees (including: species, health, age and diameter), 2) which trees will be removed and which trees will remain, which will be removed, and which will be relocated, and 3) the location, size, and species of replacement trees (C-2.4).
- The City shall require the use of oaks and other native plant species for landscaping, and recommend collection and propagation of acorns and other plant material from former Fort Ord oak woodlands to be used for restoration and landscaping (C-2.4).

- The City shall require standards for plantings under oak trees; plantings within the dripline of mature trees must be at least five feet from the trunk, and plantings under and around oaks shall be comprised of species approved by the California Oak Foundation (C-2.5).
- The City shall require that paving within the dripline of preserved oak trees be avoided wherever possible, and where unavoidable, permeable paving shall be used and root zone excavation shall be avoided (C-2.6).

The City of Marina General Plan includes policies to provide “Habitat Reserves and Other Open Space for the protection of important habitat areas, scenic areas, and other areas of natural open space.” Under the General Plan areas designated as “Habitat Reserve and Other Open Space” will be permanently maintained to “protect significant plants and wildlife inhabiting these areas.” These areas include:

- Riparian habitats and vegetation along the Salinas River
- Coastal Strand and Dunes
- 1,160 acres of maritime chaparral, coastal scrub, and coast live oak woodland designated for protection within the University of California Natural Reserve System, a 124 acre reserve site and adjacent land on Armstrong Ranch, 160 acres within the East Garrison Reserve, a 227 acre reserve south of Imjin Road, and a 50 acre reserve located along the east side of Highway 1 near the planned extension of Del Monte Boulevard.
- Wetlands, including habitat at the Armstrong Ranch to preserve vernal pools. The GP also requires a biological field survey to determine if additional vernal ponds exist prior to development on the Armstrong Ranch. If vernal pools are present, development must preserve vernal pools or provide either for the replacement of habitat. Several ponds in the developed areas of the City are also protected as open space.

The City of Del Rey Oaks General Plan contains goals and policies to provide a framework for the growth and development of the City while protecting the City’s natural resources, such as Canyon Del Rey Creek and the Frog Pond Wetland Preserve. Specific policies include but are not limited to: the preservation of wildlife corridors, the protection of the Canyon Del Rey drainage and water quality, and the protection of habit on former Fort Ord lands.

The cities of Monterey, Del Rey Oaks, Seaside, and Marina municipal codes also include tree removal permits and replacement requirements. Removal of trees under the proposed project would require approval and permitting from the applicable governing agency. Pursuant to issuance of permits, the project would not conflict with any local policy or ordinance.

Under CSUMB’s current Master Plan includes a development framework to maintain the natural habitats and habitat connections on campus. The Draft 2017 Master Plan includes policies to protect and enhance the natural environment as well as preserve and protect native habitats and trees. This policy requires that development avoid or minimize impacts to native habitats, mature trees, special status species. The Policy for Goal OS 1.6 also requires two replacement trees for every one tree that dies, is damaged, or is removed from the campus. The Policy for Goal OS 1.12 requires the protection of open space at the Southern Oak Woodlands and East Campus Open Space, but allows for minimally intrusive trail development. The Policy for Goal OS 1.15 includes continued participation in development and implementation of the Fort Ord HCP as well as the Monterey County Oak Woodland Stewardship Guidelines. The Draft CSUMB master plan also incorporates FORTAG in the mobility section (Section 7).

TAMC is currently preparing the Monterey County Regional Conservation Investment Strategy (RCIS). The RCIS Program is administered by CDFW's Habitat Conservation Planning Branch as a voluntary non-regulatory program intended to focus conservation and mitigation on priority areas and restoration opportunities. The Monterey County RCIS will provide an inventory of biological resources, conservation strategies, mitigation needs, and areas for compensatory mitigation. The RCIS is not yet adopted and is expected to be available for public review in the spring of 2020.

Jurisdictional Waters Regulations

Drainage ditches, seasonal wetlands, ephemeral and perennial streams, and seasonally flooded constructed basins in the study area may be jurisdictional waters of the U.S. under CWA Sections 404 and 401, subject to USACE and RWQCB jurisdictions. Under the Coastal Zone Management Act of 1972 and California Coastal Act of 1976, the CCC is entrusted to review proposed development in the Coastal Zone. In addition, the aquatic resources have defined beds, banks, and/or riparian habitats that are potentially under CDFW jurisdiction. Note the final jurisdictional determinations of the boundaries of waters, and riparian habitats, are made by each agency, typically at the time that authorizations to impact such features are requested.

4.4.3 Methodology and Significance Thresholds

Methodology

This section describes the potential environmental impacts of FORTAG and all FORTAG design options relevant to biological resources. The impact analysis is based on a background review of pertinent literature and resource databases (e.g. CNDDDB and CNPS online inventory), desktop vegetation mapping and a reconnaissance-level biological survey. Rincon will utilize existing information (e.g. draft Fort Ord Habitat Conservation Plan, the Fort Ord Reuse Plan, the Fort Ord Habitat Management Plan, the Fort Ord Reuse Plan Program Environmental Impact Report, and others). The results of the reconnaissance survey and literature/background review were used to determine the potential for biological resources to occur in the biological study area and evaluate potential project impacts and mitigation measures. The potential impacts are based on maximum trail widths of 16 feet or 26-feetee, where a side trail is proposed. This analysis considers impacts of both the proposed alignment as well as the identified design options.

Significance Thresholds

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

1. 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, regulations, or by CDFW or USFW or as defined under *CEQA Guidelines* Section 15380
2. 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. Have a substantial adverse effect on a state or Federally protected wetlands (including but not limited to, marsh vernal pool, coastal, etc.) through direct removal, filling, or hydrological interruption, or other means

4. 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. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

4.4.4 Project Impact Analysis

Threshold 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Impact BIO-1 THE PROPOSED PROJECT WOULD HAVE A SUBSTANTIAL ADVERSE EFFECT ON SPECIES IDENTIFIED AS A CANDIDATE, SENSITIVE, OR SPECIAL STATUS. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

Plant Species

Four special status plant species are present within the study area: Monterey spineflower, Monterey gilia, Hickman's onion, and sandmat manzanita. Monterey cypress and Monterey pine also occur in the study area; however, not in natural stands, and as such these individuals are not considered special status. An additional 38 special status species have potential to occur within the study area based upon known ranges, habitat preferences, species occurrence records from the vicinity of the study area, and presence of suitable habitat. Many of these species typically bloom in the spring/early summer and were not identifiable during the time of the mid-summer reconnaissance survey, nor were they expected to be. The assessment for potential impacts to special status plants is based on a habitat assessment and known occurrence records. Seasonally-timed, protocol-level plant surveys would identify the actual impacts to specific species, and the aerial extent and number of individuals being impacted, based on the final Trail design, prior to the various construction phases.

Construction of FORTAG would require clearing of vegetation up to a 16-foot swath for most of the alignment proposed in undeveloped areas. Side paths proposed in some areas would expand path width by approximately 10 feet. Vegetation clearing would include chaparral and oak woodland habitats on the former Fort Ord, and potential wetland habitats at Laguna Grande, Frog Pond, and Work Memorial Park. The Canyon Del Rey/SR 218 segment running through the Frog Pond Wetland Preserve would be reduced to an 8-foot width, and wetland or other jurisdictional areas would be avoided to the maximum extent feasible. Undercrossings at Reservation Road, General Jim Moore Boulevard, and SR 218 would also require ground disturbance and removal of vegetation. Additionally, access for equipment and construction is also likely to create disturbance to existing vegetation communities; this would be limited as much as practical to a 20-foot corridor. It is highly likely that development of the final project footprint would require removal of some federally and state listed plants; specifically, Monterey spineflower and Monterey gilia. Impacts to listed species would require consultation with CDFW and USFWS regarding incidental "take" authorizations.

Impacts to CRPR 1B.1 or 1B.2 plant species would only be considered significant if the loss of individuals represented a population-level impact that would jeopardize the viability of a local or regional population. Many of the non-listed species have a wider distribution beyond the Monterey Bay area. Impacts to a small number of individuals of these species from project development would not jeopardize the viability of regional populations. Several of the non-listed species are restricted to a more local distribution, including Toro manzanita, sandmat manzanita, Pajaro manzanita, Fort Ord spineflower, Eastwood's goldenbush and Hickman's cinquefoil. The Fort Ord National Monument and parcels designated as habitat reserves, as well as the larger expanse of natural lands south and east of the study area include an abundance of suitable habitat and support known populations for these species. The loss of undisturbed vegetation communities that would result from the Trail development is small, and unlikely to impact more than a few individuals of these species, if any. As such, there is low potential for impacts to non-listed species to result in jeopardy to any local or regional populations. Protocol-level plant surveys would be designed to identify any non-listed special status plant populations that would experience a significant impact under CEQA. Where possible, micro-siting within the study area to avoid rare and listed plants would avoid those impacts; however, design of project elements to avoid and minimize such impacts to special status plants and sensitive vegetation communities would be insufficient to fully mitigate potential impacts to rare and listed species. Impacts to individuals of state and federally listed species, or population-level adverse effects to non-listed species, would be considered significant but can be reduced to a less than significant level through the design of project elements to avoid and minimize such impacts to special status plants and sensitive vegetation communities or through compensatory mitigation as outlined in proposed **Mitigation Measures BIO-1(a)** through **BIO-1(c)**.

Wildlife Species

Eighteen special status wildlife species have potential to occur within the study area based upon known ranges, habitat preferences, species occurrence records in the vicinity of the study area, and presence of suitable habitat. All have some potential to occur within the impact footprint of the project corridor. Four of these were observed in or near the study area during surveys; Cooper's hawk, white-tailed kite, northern harrier, and coast horned lizard. Additionally, sign of American badger was observed and host plants for the Smith's blue butterfly were also observed. Nesting special status bird species and/or nesting migratory birds protected under CFGC may occur throughout the study area and along the entire proposed impact footprint of the project corridor. A potentially beneficial impact of the project for terrestrial special status wildlife would be the development of wildlife movement corridors under General Jim Moore Boulevard and Reservation Road, where undercrossings are proposed. Undercrossings are expected to improve wildlife movement between the former Fort Ord and Frog Pond Wetland Preserve would reduce the potential for roadkill that could occur when crossing General Jim Moore Boulevard, Canyon Del Rey Boulevard/SR 218, or Reservation Road.

Smith's Blue Butterfly

Smith's blue butterfly is dependent on its host plant for foraging and breeding. If individuals of the host plants [seacliff buckwheat (*Eriogonum parvifolium*) and seaside buckwheat (*Eriogonum latifolium*)] are present within or immediately adjacent to the project corridor, any impacts (damage or removal) to host plants, whether containing eggs and/or larva or not, would be considered a significant impact under CEQA. Trail design has the flexibility to prioritize avoidance of impacts to Smith's blue butterfly host plants to the greatest extent possible within the study area. Where direct impacts to host plants cannot be avoided, or where dispersing individuals may be impacted, these

impacts would be reduced to a less than significant level through implementation of **Mitigation Measures BIO-1(d)iii and viii, BIO-1(f), BIO-1(h), BIO-1(i), and BIO-1(j)**.

California Red-legged Frog

Suitable aquatic breeding habitat for CRLF is present within the study area at the Frog Pond Wetland Preserve (Canyon Del Rey/SR 218 segment); however, annual monitoring of this pond for special status amphibians has been negative for CRLF (Anderson 2017). Laguna Grande is not considered suitable habitat based on the presence of predatory fish. The species has a low potential to occur within the study area and is unlikely to be directly impacted by project activity except in the unlikely event that individuals are dispersing through the project area during construction activity. No impacts to breeding habitat or upland refugia are expected. Impacts to dispersing CRLFs would be reduced to a less than significant level through implementation of **Mitigation Measures BIO-1(d)v and viii and BIO-1(f), BIO-1(h), BIO-1(i), and BIO-1(j)**.

California Tiger Salamander

Suitable aquatic breeding habitat for CTS is present within the study area at the Frog Pond; however, annual monitoring of this pond for special status amphibians has been negative for CTS (Andersen 2017). Laguna Grande is not considered suitable habitat based on the presence of predatory fish and the perennial hydroperiod of this aquatic feature. CTS is known to breed in vernal pools on the Fort Ord National Monument within dispersal distance of the National Monument Loop and Northern Loop segments, and CTS is known to occur south of the study area near Jack's Peak. CTS near the Northern Marina and Northern Loop segments may be hybridized with non-native barred salamanders however. CTS may also occur in upland areas of the study area; however, the extent of upland occupancy by CTS within the study area is not known. Therefore, all upland CTS habitat is considered potential habitat (i.e., it could provide suitable small mammal burrows for aestivation during the dry season). Loss of CTS upland habitat would be considered a significant impact under CEQA. The study area includes approximately 497 acres of upland CTS habitat within 1.3 miles (2.2 kilometers) of potential breeding ponds (**Table 4.4-6, Figure 6 of Appendix C**) in the vicinity of the study area. **Table 4.4-6** presents the acreage of potential CTS upland habitat in the study area and the approximate acreage of impacts to potential CTS upland habitat within the proposed alignment and identified design options, assuming a 16-foot Trail width over the most of the 28-mile corridor with some expanded side Trail areas having to 26-foot width. The actual impacts to CTS upland habitat would be determined at the time the final design is completed; however, the numbers presented below are close approximations of the actual loss of potential CTS upland habitat from Trail development. Impacts are presented for four categories related to the distance from known or potential breeding sites.

The potential number of CTS individuals occurring in upland habitat is typically correlated to distance from breeding sites. Mitigation for impacts to upland habitat shall thus be based on the distance of impacts from known or potential breeding sites. As summarized by CDFW (2010b), the percentage of individuals expected to occur at various distances from a breeding site has been estimated. Accordingly, acreages of upland habitat have been assigned to four impact categories:

- 0.23 mile (380 meters): Greater than 50 percent of adults, and approximately 50 percent of subadult CTS dispersal from breeding sites
- 0.38 mile (620 meters): 95 percent of CTS dispersal from breeding sites
- 0.62 mile (1.0 kilometer): CTS routine dispersal from breeding sites
- 1.3 miles (2.2 kilometers): Distance adults have been found to disperse from breeding site

Impacts to potential CTS upland habitat is relatively small compared to the total habitat within the study area. This is in part because the project corridor is a small percentage of the study area, and because much of the project corridor is on existing developed areas (i.e., existing trails and roads). The total impact area of potential CTS upland habitat in all four categories is approximately 55.18 acres, based on the current alignment (excluding alignment options). The total impact area of potential CTS upland habitat for the trail with alignment design options would be approximately 66.67 acres. This includes all trail alignment options, minus those segments of the Trail that the options would replace; however, the design options include multiple mutually exclusive segments (particularly in the Northern Marina and Northern Loop segments where multiple design options are considered under this analysis), so that in no case would all options be selected. As such, the estimated impacts for the Trail alignment with design options is an overestimate of the what the final impacts would be if one or more alignment options are selected to replace some portion(s) of the Trail alignment.

Table 4.4-6 Potential CTS Habitat in BSA, and Trail Corridor Impacts to Potential Upland CTS Habitat

Impact Type	CTS Habitat in BSA	Proposed Alignment Impacts (acres)	Trail Alignment with Design Option Impacts (acres)
Category 1: 0.23 miles	167.46	10.84	12.90
Category 2: 0.38 miles	147.10	9.53	13.55
Category 3: 0.62 miles	257.85	18.15	20.72
Category 4: 1.3 miles	212.3	16.66	19.50

Trail development would not result in direct impacts to known or potential CTS breeding habitat. The species has a moderate potential to occur within the study area and could be directly impacted (injury or mortality of individuals) by project activity if individuals are dispersing through the study area during construction activity, or if construction disturbed occupied upland habitat. Impacts to CTS would be reduced to a less than significant level through implementation of **Mitigation Measures BIO-1(d)iv and viii, BIO-1(f) and BIO-1(g), BIO-1(f), BIO-1(h), BIO-1(i), and BIO-1(j).**

Coast Range Newt

Suitable aquatic breeding habitat for Coast Range newt is present within the study area at the Frog Pond Wetland Preserve (Canyon Del Rey/SR 218 segment); however, annual monitoring of this pond for special status amphibians has been negative for Coast Range newt (Andersen 2017). Laguna Grande is not considered suitable habitat based on the presence of predatory fish. There is low potential for this species to occur within the study area, and no impacts to breeding habitat are expected from project development. Direct impacts in the form of injury or mortality could occur if individuals are present during construction activity. Impacts to dispersing Coast Range newt would be reduced to a less than significant level through implementation of **Mitigation Measures BIO-1(d) and viii, BIO-1(f), BIO-1(h), BIO-1(i), and BIO-1(j).**

Two-striped Garter Snake

Two-striped garter snake has potential to occur in mesic portions of the study area including Laguna Grande, Canyon Del Rey Creek, and the Frog Pond (Canyon Del Rey/SR 218 segment). The species may be directly adversely affected by the proposed project if individuals are present in the work

areas during Trail construction. Injury or mortality of individuals that may result from construction activity may be considered a significant impact under CEQA. The presence of pedestrians, bicyclists, dogs, and equestrians may affect these species as well, if individuals are harmed or harassed by Trail activity. Injury or mortality from pedestrian and bicycle use is expected to be an unusual occurrence, as wildlife would generally avoid the paved Trail, and can generally be avoided a low travel speeds. Impacts to this species from construction activity would be reduced to less than significant with the implementation of **Mitigation Measures BIO-1(d)i and viii, BIO-1(f), BIO-1(h), BIO-1(i), and BIO-1(j)**.

Northern California Legless Lizard

Northern California legless lizard has potential to occur in a wide range of habitats across the study area but is most likely to occur in areas with sufficient moist leaf litter or other ground-cover to support their habitat requirements. They are most likely to occur in the western extent of the study area but may also occur east of General Jim Moore Boulevard in areas with higher moisture (all Trail segments). The species may be directly affected (injury or mortality) by the Trail construction activities if individuals are present in the work area during construction. The presence of pedestrians, bicyclists, dogs, and equestrians may affect these species as well, if individuals are harmed or harassed by Trail activity. Injury or mortality from pedestrian and bicycle use is expected to be an unusual occurrence, as wildlife would generally avoid the paved Trail, and can generally be avoided a low travel speeds. Impacts to this species from construction activity would be reduced to less than significant with the implementation of **Mitigation Measures BIO-1(d)i and viii, BIO-1(f), BIO-1(h), BIO-1(i), and BIO-1(j)**.

Western Pond Turtle

Western pond turtle has potential to occur in less mesic portions of the study area including Laguna Grande, Canyon Del Rey Creek, and the Frog Pond (Canyon Del Rey/SR 218 segment). The species may be directly adversely affected by the proposed project if individuals are present in the work areas during Trail construction. Injury or mortality of individuals that may result from construction activity may be considered a significant impact under CEQA. The presence of pedestrians, bicyclists, dogs, and equestrians may affect these species as well, if individuals are harmed or harassed by Trail activity. Injury or mortality from pedestrian and bicycle use is expected to be an unusual occurrence, as wildlife would generally avoid the paved Trail, and can generally be avoided a low travel-speeds. Impacts to this species from construction activity would be reduced to less than significant with the implementation of **Mitigation Measures BIO-1(d)i and viii, BIO-1(f), BIO-1(h), BIO-1(i), and BIO-1(j)**.

Coast Horned Lizard

Coast horned lizard has potential to occur in a wide range of habitats across the study area where loose and sandy soils occur in generally open areas. They are most likely to occur east of General Jim Moore Boulevard (National Monument Loop segment), along the section south of Inter-Garrison Road (Northern Loop segment) and in the Northern Loop segment south of the Salinas River, but could also occur in any open sandy area within the study area. The species may be directly affected (injury or mortality) by the Trail construction activities if individuals are present in the work area during construction. The presence of pedestrians, bicyclists, dogs, and equestrians may affect these species as well, if individuals are harmed or harassed by Trail activity. Injury or mortality from pedestrian and bicycle use is expected to be an unusual occurrence, as wildlife would generally avoid the paved Trail, and can generally be avoided a low travel speeds. Impacts to this species from construction activity would be reduced to less than significant with the implementation of

Mitigation Measures BIO-1(d)i and viii, BIO-1(f), BIO-1(h), BIO-1(i), and BIO-1(j) would reduce potential impacts to less than significant.

Burrowing Owl

Suitable burrowing habitat is present in annual grassland, low density scrub, and open spaces throughout the study area. The species is known to occur in the region but does not occur in the abundance seen at inland locations, and thus the species is considered to have a moderate potential to occur within the study area. Impacts to burrowing owls would be limited to project activity that would directly affect an occupied burrow (temporarily or permanently damage or destroy the burrow), or project activity that would disrupt active breeding or wintering owls within 500 feet of construction activity. Because of the narrow width of the disturbance footprint, direct impacts to active burrows are unlikely; however, owls can be disturbed by construction noise and human activity and may abandon active burrows, including during breeding. The presence of pedestrians, bicyclists, dogs, and equestrians may affect burrowing owls, if individuals are harmed or feel harassed by Trail activity. Injury or mortality from pedestrian and bicycle use is expected to be an unusual occurrence, as wildlife would generally avoid the paved Trail, and can generally be avoided at low travel-speeds. This species may occur in bare patches, ruderal, or grasslands in all Trail segments. Impacts to active burrowing owl burrows would be considered significant under CEQA. Implementation of **Mitigation Measures BIO-1(d)ii and viii, BIO-1(f), BIO-1(h), BIO-1(i), and BIO-1(j)** would reduce potential impacts to less than significant.

Nesting Raptors, Special Status Birds and Other Protected Birds

Nesting raptors such as white-tailed kite, golden eagle, and Cooper's hawk have the potential to nest in tall trees within or near the study area (all Trail segments). Northern harrier and horned lark may nest in annual grasslands and open scrubby habitats within the study area. Suitable habitat for tricolored blackbird is present at Laguna Grande, and to a lesser degree within the Frog Pond Wetland Preserve (Canyon Del Rey/SR 218 segment). In general, avian species can easily avoid direct impacts from construction activity. Because there are already informal trails through much of the proposed alignment and project has been designed to occur along the edges of existing development, impacts due to increased human presence and recreational use is not likely to result in a significant impact to highly mobile (non-terrestrial) species such as birds; however, active nests of special status birds and/or raptors could be adversely affected by Trail construction activity. Construction activity around active nests present outside of the impact footprint but in the vicinity of construction could result in nest abandonment as a result of noise or human activity. Nest destruction or nest abandonment of active special status species and/or raptor nests would be considered a significant impact under CEQA. Implementation of **Mitigation Measures BIO-1(e), BIO-1(f), BIO-1(h), BIO-1(i), and BIO-1(j)** would reduce potential impacts to special status nesting birds to less than significant.

Trail development could result in direct impacts to nesting migratory birds protected under CFGC, during vegetation clearing, grading and other construction activity, through destruction or damage of active nests, or through disturbance to nesting birds from construction activity and noise. Impacts to non-special status migratory birds would generally not be considered significant under CEQA; however, loss of active migratory bird nests through nest destruction or nest abandonment would be a violation of CFGC. Implementation of Mitigation Measure BIO-1(e) would also prevent violations of CFGC.

American Badger

American badger could occur in any of the natural vegetation communities within the study area and is most likely to occur in areas away from existing human development, on the eastern side of the project corridor (east side of all Trail segments). American badger typically has a home range of over 1,000 acres and the project has been designed to occur along the edges of existing development; therefore, the project is not expected to infringe significantly into a badger's home range. However, active natal burrows or other occupied burrows could be directly impacted if they are present within the proposed disturbance area at the time of construction. This is predominantly nocturnal species and impacts due to increased human presence and recreational use along the edges of developed areas are not expected to be a significant, because of the low use that would be expected during badger activity periods. Direct impacts to occupied badger dens could be considered a significant impact under CEQA. Implementation of **Mitigation Measures BIO-1(d)i and viii, BIO-1(f), BIO-1(h), BIO-1(i), and BIO-1(j)** would reduce potential impacts to less than significant.

Monterey Dusky-footed Woodrat

Monterey dusky-footed woodrat middens were observed in coast live oak habitats throughout the study area (all Trail segments), and they have the potential to occur throughout any wooded or dense scrub habitat within the study area. Direct impacts to this species are generally unlikely, as the species is nocturnal and unlikely to remain in the vicinity of human activity; however, if middens are present in the proposed alignment and must be removed this could result in injury or mortality of individuals. Use of the Trail may cause disturbance if dogs are off leash or pedestrians or mountain bikers go off rail. These impacts would be less than significant with implementation of **Mitigation Measures BIO-1(d)vi and viii, BIO-1(f), BIO-1(h), BIO-1(i), and BIO-1(j)**.

Pallid and Townsend's Big-eared Bats

Pallid bat and Townsend's big-eared bat have low potential to roost in the study area. Abandoned buildings were observed along California Avenue, at the west end of 8th and 9th streets (CSUMB Loop North segment) and on the north side of Divarty Street (CSUMB Loop South segment), and trees with appropriate structure for roosting may be present in wooded areas of the project corridor (all Trail segments). The proposed project does not include removal of buildings; however, trees large with appropriate structure to support roosting bats may be impacted by Trail development. Injury to, or mortality of roosting bats resulting from tree removal would be considered a significant impact under CEQA. These impacts would be less than significant with implementation of **Mitigation Measures BIO-1(d) vii and viii, BIO-1(f), BIO-1(h), BIO-1(i), and BIO-1(j)**.

Mitigation Measures

The following mitigation measures apply to every Trail segment or portion thereof.

BIO-1(a) Conduct Special Status Plant Species Surveys

Prior to issuance of grading permits for each individual segment, surveys for special status plants shall be completed in all natural vegetation communities and in undeveloped areas (including ruderal, and non-native habitats). The surveys shall be floristic in nature and shall be seasonally timed to coincide with the target species identified in the project-specific biological analysis. All plant surveys shall be conducted by a qualified biologist during the blooming season prior to any ground disturbance. All special status plant species identified shall be mapped onto a site-specific aerial photograph or topographic map with the use of Global Positioning System (GPS) unit. Surveys

shall be conducted in accordance with the most current protocols established by the CDFW, USFWS, and the local jurisdictions if said protocols exist. A plant survey report shall be prepared that: 1) outlines the methodology of surveys and qualifications of surveying biologists; 2) presents the results of the surveys; 3) presents an analysis of potential impacts to non-listed species and a determination of whether or not those impacts could result in jeopardy of a local or regional population; 4) presents a summary of listed species that would be impacted including numbers of individuals and/or acres of occupied habitat; 5) presents the required compensatory mitigation; and 6) recommends any additional tasks that would be required to meet the conditions of **Mitigation Measures BIO-1(b) and BIO-1(c)**. A report of the survey results shall be submitted to the implementing entity. The CDFW and/or USFWS may also require documentation of surveys for consultation purposes. If special status plants are identified within or adjacent to proposed disturbance areas, **Mitigation Measures BIO-1(b) and/or BIO-1(c)** shall be implemented. The first of the focused protocol rare plant surveys were completed for the Canyon Del Rey/SR 218 segment, the CSUMB Loop South segment and the CSUMB Loop North segment in the 2019 blooming period. Completed rare plant surveys need not be repeated if construction of a segment occurs within three years of the survey's completion.

BIO-1(b) Implement Special Status Plant Species Avoidance, Minimization, and Mitigation

If federally and/or state listed or CRPR List 1B or 2 species are found during special status plant surveys [pursuant to Mitigation Measure BIO-1(a)], and listed species would be directly and/or indirectly impacted, or there would be a population-level impact to non-listed species, then the Trail shall be re-aligned within the study area to avoid impacting those plant species where and if feasible. Listed and other special status plant occurrences that are not within the immediate disturbance footprint but are located within 50 feet of disturbance limits shall be demarcated as an Environmentally Sensitive Area (ESA), and shall have bright orange protective fencing installed a minimum of 30 feet beyond their extent prior to and during construction activities. Reduction of avoidance buffer distance must be approved by a qualified biologist. No construction activity shall be allowed within these avoidance areas. To avoid encroachment within ESAs, the limits of work shall be clearly shown on all project plans and demarcated on site with high visibility fencing. Work in the vicinity of such ESAs shall be monitored by a qualified biologist to ensure no encroachment. If significant impacts to special status plants cannot be avoided, **Mitigation Measure BIO-1(c)** shall be implemented.

BIO-1(c) Prepare Habitat Mitigation and Monitoring Plan

If federally and/or state listed plants or non-listed special status plant populations [or sensitive natural communities or waters of the U.S. and/or State; see **Mitigation Measures BIO-2(b) and BIO-3(b)**, respectively] cannot be avoided and will be impacted by development of the proposed project, all impacts shall be mitigated by the implementing entity at a minimum ratio of 1:1 for occupied habitat area as a component of habitat restoration or through compensatory mitigation. If the RCIS is adopted at the time of project implementation, mitigation may be facilitated through the RCIS program. A habitat mitigation and monitoring plan (HMMP) shall be prepared by a qualified biologist and submitted to implementing entity for review and approval. (Note: if a federally and/or state listed plant species will be impacted, USFWS and/or CDFW will likely require a restoration plan to be submitted for their review in support of federal and/or state incidental take authorization[s]). The HMMP shall include, at a minimum, the following components:

- Description of the project/impact site (i.e., location, responsible parties, areas to be impacted by habitat type)
- Goal(s) of the compensatory mitigation project [type(s) and area(s) of habitat to be established, restored, enhanced, and/or preserved; specific functions and values of habitat type(s) to be established, restored, enhanced, and/or preserved]
- Description of the proposed compensatory mitigation site (location and size, ownership status, existing functions and values)
- Implementation plan for the compensatory mitigation site (rationale for expecting implementation success, responsible parties, schedule, site preparation, planting plan)
- Maintenance activities during the monitoring period, including weed removal as appropriate (activities, responsible parties, schedule)
- Monitoring plan for the compensatory mitigation site, including no less than quarterly monitoring for the first year (performance standards, target functions and values, target acreages to be established, restored, enhanced, and/or preserved, annual monitoring reports)
- Success criteria based on the goals and measurable objectives; said criteria to be, at a minimum, at least 80 percent survival of container plants and 30 percent relative cover by vegetation type
- An adaptive management program and remedial measures to address any shortcomings in meeting success criteria and/or to address catastrophic events such as wildfires
- Notification of completion of compensatory mitigation and agency confirmation
- Contingency measures (initiating procedures, alternative locations for contingency compensatory mitigation, funding mechanism)

BIO-1(d) Conduct Special Status Wildlife Pre-Construction Surveys

GENERAL WILDLIFE SURVEYS

Pre-construction clearance surveys for northern California legless lizard, coast horned lizard, two-striped garter snake, western pond turtle and American badger shall be conducted within 14 days prior to the start of construction (including staging and mobilization) in areas of suitable habitat. For two-striped garter snake and western pond turtle, these areas are limited to the Canyon Del Rey/SR 218 segment. California legless lizard may be found in undeveloped areas throughout the project corridor. Coast horned lizard and American badger suitable habitats are limited to the Northern Marina, Northern Loop, National Monument Loop, Ryan Ranch, and Canyon Del Rey/SR 218 segments. The surveys shall cover the entire disturbance footprint plus a minimum 200-foot buffer within suitable habitat, where permissible, and shall identify all special status animal species that may occur on-site. California legless lizard, coast horned lizard, and two-striped garter snake shall be relocated from the site to a safe location within suitable habitat as near to the project area as possible by a qualified biologist.

BURROWING OWL SURVEYS

A qualified biologist shall conduct pre-construction clearance surveys prior to ground disturbance activities within suitable natural habitats and ruderal areas throughout the Trail segments to confirm the presence/absence of active burrowing owl burrows. The surveys shall be consistent with the recommended survey methodology provided by CDFW (2012). Clearance surveys shall be conducted within 30 days prior to construction and ground disturbance activities. If no burrowing

owls are observed, no further actions are required. If burrowing owls are detected during the pre-construction clearance surveys, the following measures shall apply:

- Avoidance buffers during the breeding and non-breeding season shall be implemented in accordance with the CDFW (2012) and Burrowing Owl Consortium (1993) minimization mitigation measures.
- If avoidance of burrowing owls is not feasible, then additional measures such as passive relocation during the nonbreeding season and construction buffers of 200 feet during the breeding season shall be implemented, in consultation with CDFW. In addition, a Burrowing Owl Exclusion Plan and Mitigation and Monitoring Plan shall be developed by a qualified biologist in accordance with the CDFW (2012) and Burrowing Owl Consortium (1993).

SMITH'S BLUE BUTTERFLY HOST PLANT SURVEYS AND MITIGATION

Prior to grading and construction in undeveloped areas throughout the Trail alignment, an approved biologist shall conduct surveys for seacliff buckwheat (*Eriogonum parvifolium*) and seaside buckwheat (*Eriogonum latifolium*), host plants of Smith's blue butterfly in areas of suitable habitat. These surveys can be completed as part of the rare plant surveys conducted under Mitigation Measure BIO-1(a).

If no Smith's blue butterfly host plants are located, no further action is required. If host plants are located within proposed disturbance areas, they shall be avoided if feasible. If avoidance is not feasible, the plants shall be buffered by a minimum of 25 feet and demarcated as an ESA with high-contrast construction flagging, and no construction activity shall be allowed within the buffered avoidance area. If construction would be required within the buffer area, a biological monitor shall be present for all work within the buffer avoidance area to ensure no direct impacts to host plants.

If avoidance is not feasible, focused surveys shall be conducted to determine presence or absence of the butterfly species. This may include surveys during the adult flight period (mid-June through early September), and/or inspection of host plants for all life forms (egg, larva, pupa, and adult). If individuals of any life stage that may be impacted by the proposed project are detected during focused surveys, the plant cannot be disturbed without take authorization from USFWS. Only a USFWS permitted biologist would be allowed to relocate occupied host plants.

CALIFORNIA TIGER SALAMANDER

Prior to grading and construction in natural areas of all segments containing suitable upland habitat, a qualified biologist shall conduct a preconstruction survey for CTS. The survey shall include a transect survey over the entire project disturbance footprint (including access and staging areas), and mapping of burrows that are potentially suitable for salamander occupancy. If any CTS is detected, no work can be conducted until the individual leaves the site of their own accord, unless federal and state "take" authorization has been issued. Typical preconstruction survey procedures, such as burrow scoping and burrow collapse, cannot be conducted without federal and state permits. If any life stage of CTS is found within the survey area, the USFWS and CDFW shall be consulted to determine the appropriate course of action to comply with the FESA and CESA, if permits are not already in place at the time of construction.

CALIFORNIA RED-LEGGED FROG

Within 24 hours prior to grading and construction in undeveloped areas of the Ryan Ranch, Canyon Del Rey/SR 218, National Monument Loop, Northern Loop, and Northern Marina segments, a

clearance survey for CRLF shall be conducted by a qualified biologist. If a CRLF is detected during the survey, the implementing entity shall consult with the USFWS. Project activities shall not occur until the individual has left the site on its own accord. If CRLFs are to be relocated, a formal take authorization issued by the USFWS must be obtained prior to relocation. No CRLFs shall be relocated or handled without express permission from USFWS.

MONTEREY DUSKY-FOOTED WOODRAT

A qualified biologist shall conduct a pre-construction survey for woodrats no more than 14 days prior to construction. Middens within 50 feet of project activity that would not be directly impacted by project activity shall be demarcated with a 10-foot avoidance buffer and left intact. If a midden(s) that cannot be avoided are found during the pre-construction survey, an approved biologist shall monitor the dismantling of the midden by a construction contractor to assist with the goal of ensuring the individuals are allowed to leave the work areas unharmed before on site activities begin.

SPECIAL STATUS BATS

If trees of sufficient size and structure (i.e., mature trees with hollows and crevices) to support roosting bats are slated for removal during construction, a preconstruction bat emergence survey shall be conducted by a qualified biologist to determine if the tree functions as a roost. Emergence times may vary dependent on species, weather conditions, and time of year and shall occur when conditions are favorable (higher temperatures, high humidity, low wind, no precipitation), and timed to capture bat emergence (typically occurring between sunset and sunrise). Maternity season for bats ranges from May 1 through August 31. After September, bats begin to enter their hibernaculum stage in preparation for colder months and may not emerge from their roosts, and emergence surveys would not be conclusive.

The specific timelines for implementation of management of roosting bats within the project corridor would be determined based upon the results of the emergence surveys. Once the species has been determined, areas to relocate roosts to may also be identified (i.e. other areas away from tree removal area). Relocation sites away from the project impact area can be enhanced with additional bat boxes or structures depending on the species. Alternative bat roosting habitat shall be installed as far in advance of the humane eviction/exclusion as possible to increase likelihood of their discovery and use by the bats being evicted. Therefore, the installation of alternative bat roosting structures shall be initiated as soon as active roosts are identified. After alternative roost structures have been installed, eviction measures can be implemented. Install exclusion netting and socks (specific for bats to prevent re-entry) at roost openings to allow bats to exit but prevent their re-entry into the roost. Nets and socks would have to be regularly checked to prevent wildlife entrapment. Exclusion devices shall be left in place and monitored daily for seven days to confirm the exclusion is successful prior to tree removal. Tree removal shall be monitored by a qualified bat biologist in case any further individual relocation is necessary.

REPORTING

A report of all pre-construction survey results shall be submitted to the implementing entity for its review prior to the start of demolition. The report shall include a description of the survey methodology for each species, the environmental conditions at the time of the survey(s), the results of the survey, any requirements for addressing special status species identified during surveys, and

the biological qualifications of the surveyors. The report shall be accompanied by maps and figures showing the location of any special status species occurrences and associated avoidance buffers.

BIO-1(e) Conduct Nesting Bird Preconstruction Surveys

Ground disturbance and vegetation removal activities shall be restricted to the non-breeding season (September 16 to January 31) for all segments when feasible. For ground disturbance and vegetation removal activities occurring in all project areas during the bird nesting season (February 1 to September 15), general pre-construction nesting bird surveys shall be conducted by a qualified biologist for all migratory birds, including special status birds and raptors (i.e., northern harrier, Cooper's hawk, horned lark, tricolored blackbird and white-tailed kite) not more than 14 days prior to construction activities involving ground clearing, vegetation removal/trimming, or building demolition. The surveys shall include the disturbance area plus a 200-foot buffer around the site if feasible, a 500-foot buffer for tricolored blackbird and white-tailed kite. If active nests are located, an appropriate avoidance buffer shall be established within which no work activity will be allowed which would impact these nests. The avoidance buffer would be established by the qualified biologist on a case-by-case basis based on the species and site conditions. In no cases shall the buffer be smaller than 50 feet for non-raptor bird species, 200 feet for raptor species, a 500-foot buffer for tricolored blackbird and white-tailed kite. Larger buffers may be required depending upon the status of the nest and the construction activities occurring in the vicinity of the nest. If fully protected White-tailed kites are documented nesting within 500 feet of construction activities, CDFW shall be consulted on appropriate avoidance and minimization methods, which would likely include work restrictions within 500 feet of the nest, biological monitoring for activity within the nest' line-of-sight, etc. The buffer area(s) shall be closed to all construction personnel and equipment until juveniles have fledged and the nest is inactive. The implementing entity-approved biologist shall confirm that breeding/nesting is completed and young have fledged the nest prior to removal of the buffer.

BIO-1(f) Implement Biological Resources Avoidance and Minimization

The following measures shall be applied to all segments to avoid impacts to sensitive species and biological resources. The implementing entity shall be responsible for implementing selected measures.

- Ground disturbance shall be limited to the minimum necessary to complete the project. The limits of disturbance for each construction phase shall be flagged. Areas of special biological concern within or adjacent to the limits of disturbance shall have highly visible orange construction fencing installed between said area and the limits of disturbance.
- All construction occurring within or adjacent to natural habitats that may support Federally and/or State listed endangered/threatened species, State fully protected species, and/or special status species shall have a qualified biological monitor present during all initial ground disturbing/vegetation clearing activities.
- No endangered/threatened species shall be captured/handled, relocated, harmed, or harassed without express written permission from the CDFW and/or USFWS.
- If at any time during construction an endangered, threatened, or fully protected species enters the construction site or otherwise may be impacted, all construction activities shall cease. A CDFW/USFWS-approved biologist shall document the occurrence and consult with the CDFW and USFWS, as appropriate, to determine whether it was safe for project activities to resume.

- At the end of each workday, excavations shall be secured with cover or a ramp provided to prevent wildlife entrapment.
- All trenches, pipes, culverts or similar structures shall be inspected for animals prior to burying, capping, moving, or filling.
- If night work is required, all construction lighting shall be pointed down and directed only on the work area.
- The implementing entity shall approve one or more qualified biologists to oversee and monitor biological compliance for the project. At least one qualified biologist shall be present during all initial ground disturbing activities, including vegetation removal to recover special status animal species unearthed by construction activities.

BIO-1(g) Implement California Tiger Salamander Compensatory Mitigation

If California tiger salamander habitat cannot be avoided, the implementing entity shall preserve off-site suitable upland habitat and/or purchase credits at an approved conservation bank as compensatory mitigation to offset impacts to suitable California tiger salamander upland habitat. The compensatory mitigation shall incorporate the conditions and compensatory mitigation requirements specified in the incidental take permit(s) and/or incidental take statement that could be issued by CDFW and USFWS for this project but shall meet the minimum standards specified in this measure. Compensatory mitigation shall be provided at a ratio of not less than 0.5:1 (area mitigated: area impacted) for Categories 3 and 4 upland habitat and 1:1 for Categories 1 and 2 habitat. Compensatory mitigation shall occur off-site. Areas proposed for preservation must contain verified California tiger salamander habitat within 1.3 miles of a known breeding pond.

The compensatory mitigation area(s) shall have a restrictive covenant (e.g., conservation easement) prohibiting future development/disturbance and shall be managed in perpetuity to encourage persistence and enhancement of the preserved target species. Compensatory mitigation lands cannot be located on land that is currently held publicly for resource protection, unless a portion of such land is degraded/destroyed or otherwise not functioning as pre-disturbance, intact natural habitat (e.g., abandoned agricultural field) and could be restored. The compensatory mitigation areas shall be managed by a conservation lands management entity or other qualified easement holder.

The CDFW and organizations approved by CDFW that meet the criteria below may be considered qualified easement holders for those species for which the CDFW has regulatory authority. To qualify as a “qualified easement holder” a private land trust must at a minimum have:

1. Substantial experience managing conservation easements that are created to meet mitigation requirements for impacts to special-status species;
2. Adopted the Land Trust Alliance’s Standards and Practices; and;
3. A stewardship endowment fund to pay for its perpetual stewardship obligations.

Other specific conditions for qualified easement holders may be outlined in incidental take permit(s) and/or incidental take statement that could be issued by CDFW and USFWS for this project.

The implementing entity shall determine whether a proposed easement holder meets these requirements. The implementing entity shall also be responsible for donating to the conservation easement holder fees sufficient to cover administrative costs incurred in the creation of the conservation easement (appraisal, documenting baseline conditions, etc.) and funds in the form of a non-wasting endowment to cover the cost of monitoring and enforcing the terms of the

conservation easement in perpetuity. The amount of these administrative and stewardship fees shall be determined by the conservation easement holder in consultation with the implementing entity.

Conservation easement(s) shall be held in perpetuity by a qualified easement holder (as defined above), and be subject to a legally binding agreement that shall: (1) be recorded with the County Recorder(s); and (2) contain a succession clause for a qualified easement holder if the original holder is dissolved.

The following factors shall be considered in assessing the quality of potential mitigation habitat: (1) current land use, (2) location (e.g., habitat corridor, part of a large block of existing habitat, adjacency to source populations, proximity to potential sources of disturbance), (3) vegetation composition and structure, (4) slope, (5) soil composition and drainage, and (6) level of occupancy or use by all relevant species.

To meet the requirement that the mitigation habitat is of value equal to, or greater than, the habitat impacted on the project site, the mitigation habitat must be either “suitable habitat” or “enhanced habitat” as described below:

SUITABLE HABITAT

To meet the requirements for suitable habitat that provides equal or greater habitat value for listed animal species than the impacted habitat, the habitat must:

1. Provide habitat for special status animal species, such that special status animal species populations can regenerate naturally when disturbances are removed;
2. Not be characterized by (or adjacent to areas characterized by) high densities of invasive species, such as yellow star-thistle, or species that might jeopardize habitat recovery and restoration;
3. Not contain hazardous wastes that cannot be removed to the extent that the site could not provide suitable habitat; and
4. Not be located on land that is currently publicly held for resource protection.

ENHANCED HABITAT

If suitable habitat is unavailable, or in lieu of acquiring already suitable special status animal species habitat, the applicant may enhance potential habitat that:

1. Is within an area with potential to contribute to habitat connectivity and build linkages between populations;
2. Consists of actively farmed land or other land containing degraded habitat that will support enhancement;
3. Supports suitable soils, slope, and drainage patterns consistent with special status animal species requirements;
4. Cannot be located on land that is currently held publicly for resource protection; and
5. Does not contain hazardous wastes or structures that cannot be removed to the extent that the site could not provide suitable habitat.

ENHANCED HABITAT STANDARDS

For enhanced habitat conditions to equal or exceed habitat conditions on the project site, the enhanced habitat shall meet the following habitat criteria: After five years, these sites must consist of suitable habitat or contain other habitat characteristics (e.g., small mammal burrows in upland habitat for California tiger salamander habitat, wetlands, ponds, etc.) that are consistent with the known ecology of the special status animal species to which compensatory mitigation is being applied and the habitat components for which the mitigation is compensating for.

BIO-1 (h) Provide Worker Environmental Awareness Program (WEAP)

Prior to initiation of construction activities (including staging and mobilization) the implementing entity shall arrange for all personnel associated with project construction to attend WEAP training, conducted by an approved biologist, to aid workers in recognizing special status resources that may occur in the construction area. The specifics of this program shall include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction. All employees shall sign a form provided by the trainer indicating they have attended the WEAP and understand the information presented to them. The form shall be submitted to the implementing entity to document compliance.

BIO-1 (i) Perform Biological Monitoring

A qualified biological monitor shall be present for all ground clearing and vegetation removal in areas of natural vegetation within all segments. Daily monitoring activity shall include morning clearance sweeps for special status species prior to new ground disturbance or vegetation removal. In addition to general biological monitoring, a qualified CTS biologist shall be present during all work in suitable habitat on the Ryan Ranch, Canyon Del Rey/SR 218, National Monument Loop, Northern Loop, and Northern Marina segments to monitor specifically for CTS. The monitor shall have the authority to stop work if special status species are discovered on site or if special status species are at risk of harm as a result of project activity. A sufficient number of monitors shall be available to directly monitor ground clearing and vegetation removal at all times and to clear areas in advance of grading and vegetation clearing activity. The number of monitors shall be based on the type, location and extent of construction activity and the number of crews and crew locations working at any one time to ensure monitoring is effective in reducing impacts to special status species. The biological monitor shall capture and relocate any non-listed special status species to the closest suitable habitat. Listed species cannot be handled without prior federal and state "take" authorizations. The monitor(s) shall maintain daily monitoring logs and document all observations of special status species and all incidents of wildlife relocation. A final monitoring report shall be prepared to summarize the results of biological monitoring, including the total number of days of monitoring, all special status species observations, and the results of any wildlife relocations.

BIO-1 (j) Implement Wildlife Avoidance and Minimization

The following measures are required to avoid or minimize impacts to special status species in all Trail segments:

- Activities onsite shall be restricted to daylight hours to the maximum extent possible.

- All trenches, pipes, culverts or similar structures shall be inspected for animals prior to burying, capping, moving, or filling.
- All construction occurring within/adjacent to the Northern Marina, Northern Loop, National Monument Loop, Ryan Ranch, and Canyon Del Rey/ SR 218 and segments (including riparian habitats and wetlands) shall be completed between April 1 and October 31, if feasible, to avoid impacts to California tiger salamander.
- If federal or state listed species are detected during preconstruction surveys, the implementing entity shall consult with CDFW and/or USFWS. Construction activities shall not occur until the individual has left the site. If federal or state listed species are to be relocated to the nearest appropriate habitat, this can only occur if CDFW and/or USFWS have issued formal take authorization, and the relocation is conducted by a CDFW- and/or USFWS-approved biologist. No endangered/threatened species shall be captured and relocated without express permission from the CDFW and/or USFWS.
- If at any time during project activities an endangered/threatened species enters the work area or otherwise may be impacted by the project, all project activities shall cease. A qualified biologist shall document the occurrence and consult with CDFW and USFWS, as appropriate, to determine whether it was safe for project activities to resume.

Significance After Mitigation

Impacts would be less than significant with mitigation.

Threshold 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?

Impact BIO-2 THE PROPOSED PROJECT WOULD HAVE A SUBSTANTIAL ADVERSE EFFECT ON ANY RIPARIAN HABITAT OR OTHER SENSITIVE NATURAL COMMUNITY IDENTIFIED IN LOCAL OR REGIONAL PLANS, POLICIES, REGULATIONS, OR BY THE CDFW OR USFWS. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

Sensitive natural communities known to occur within the study area which may be impacted by the proposed project include central dune scrub, central maritime chaparral, coastal and valley freshwater marsh, Riparian woodlands, chamise chaparral, woolly-leaf manzanita, coyote brush scrub, sandmat manzanita chaparral, and chamise – black sage chaparral. Arroyo willow and riparian woodlands are also considered sensitive and were observed in the BSA (National Monument Loop, CUMB North Loop, Canyon Del Rey/SR 218, and Ryan Ranch segment). Other natural communities included in the California Sensitive Natural Communities List are also likely to be present in the study area but have not been mapped on a broad scale. One federally designated critical habitat unit for Monterey spineflower occurs within the study area at the Northern Loop segment and would be affected by construction of the Trail within this critical habitat unit. The 2002 Biological Opinion addressing impacts to Monterey spineflower critical habitat for the disposal and reuse of Fort Ord also allows development of trails within the habitat corridor parcel, while maintaining a high habitat value (USFWS 2002b). No sensitive natural communities were observed in the Northern Marina segment or options. The lakes, streams, wetlands and riparian areas in the BSA at Laguna Grande are identified as ESHA under the adopted Local Coastal Program. In addition, oak woodlands and dunes such as those in the Northern Marina segment may also meet criteria to be considered ESHA. Definitions of ESHA in neighboring jurisdictions are similar. Direct impacts to sensitive

habitats, critical habitats, and ESHA could occur through ground disturbance or vegetation removal and conversion of habitats to development of a multi-purpose paved trail. Indirect impacts could also occur through the trampling of vegetation (e.g., people or horses going off trail), establishment of non-native invasive species, and the introduction of pathogens. Impacts would be less than significant with mitigation incorporated. Based on the project alignment, the project would potentially result in permanent impacts to approximately 4.55 acres of sensitive natural communities as presented in **Table 4.4-7**. This number increases to 4.92 when the design options are included; however, since the design options include mutually exclusive segments, there would be no case in which all options would be selected. As such, the 4.92 acres of impacts is an overestimate of actual impacts if one or more design options were to be selected. The final total impacts to sensitive habitats are likely to be similar to those presented for the proposed alignment, although the totals for individual communities may differ slightly from the numbers presented in Table 4.4-7. The project would potentially result in approximately 0.79 acre of impacts to ESHA.

Table 4.4-7 Sensitive Vegetation Community Impacts

Sensitive Vegetation Community	Proposed Alignment Impacts (acres)	Design Option Impacts (acres)
Dune Scrub	1.63	1.63
Freshwater Emergent Wetland	0.16	0.19
Manzanita Chaparral	1.77	2.17
Sandmat Manzanita Chaparral	0.11	0.12
Arroyo Willow	0.51	0.51
Riparian Woodland	0.37	0.30
Total Impacts	4.55	4.92

Mitigation Measures

BIO-2(a) Implement Sensitive Natural Community Avoidance Measures

The following measures shall be implemented for all Trail segments:

- To the extent feasible, all trail construction activities, including access routes, staging areas, stockpile areas, and equipment maintenance are to be located outside of the limits of mapped sensitive habitats. Sensitive habitat areas shall be mapped by a qualified biologist and clearly shown on construction plans. Temporary fencing (e.g., silt fencing) shall be installed at the outermost edge sensitive habitats and shall not be disturbed except as required for trail construction. Vegetation removal shall be limited to the minimum extent necessary to achieve project objectives. Mature trees shall be retained wherever feasible and limbing of trees and shrubs in arroyo willow scrub and riparian forest, and coast live oak woodland should be favored in lieu of removal. When possible, during construction stumps and burls of native vegetation shall be retained to allow for re-sprouting following project completion.
- Arroyo willow riparian forest impacted by slope stabilization activities shall be minimized to the maximum extent feasible. Construction of retaining walls, slope contouring, and other stabilization techniques shall be limited to the footprint of the required work area. Silt fencing and other erosion control measures shall be placed immediately downslope to prevent sediments and debris from entering stream courses and degrading water quality.

Bioengineering techniques (e.g. low crib walls, vegetation planting) shall be used as a slope stabilization approach, when feasible.

BIO-2(b) Develop and Implement a Biological Resources Mitigation and Management Plan for Impacts to Biological Resources Resulting from Trail Construction and Operation

A qualified (USFWS- and CDFW-approved) biologist shall prepare a project-specific Biological Resources Mitigation and Management Plan (MMP) for each segment individually to compensate for direct and indirect impacts to sensitive habitats, and other sensitive biological resources resulting from trail construction and operation. The MMP shall compensate for permanent loss of sensitive habitats, through the creation, restoration, and enhancement of in-kind sensitive habitat, as close to impacted areas as feasible within the study area, or on suitable preserve lands on the former Fort Ord.

To protect against the loss of ecological functions and values, compensatory mitigation shall re-create the following features of existing sensitive habitat that would be impacted by the proposed project: habitat mosaic, edge habitats, and proximity to wetlands and other waters.

The Biological Resources MMP shall include the following:

- Description of the Trail alignment including acreage of temporary and permanent impacts to central dune scrub, central maritime chaparral, coastal and valley freshwater marsh, Riparian woodlands, chamise chaparral, woolly-leaf manzanita, coyote brush scrub, sandmat manzanita chaparral, chamise – black sage chaparral, arroyo willow, and riparian woodlands, including the number and type of trees slated for removal.
- Acreage of temporary and permanent impacts to California tiger salamander upland, and dispersal habitat, smith’s blue butterfly habitat, habitat for species of special concern, and listed plant species habitat.
- Ecological functions and values assessment of sensitive habitats, including California tiger salamander habitat to determine suitable mitigation ratios.
- Goals of compensatory mitigation, including types and areas of sensitive habitat to be created, restored, and/or enhanced; number and type of trees to be replaced, specific functions and values of mitigation habitat types, mitigation ratios (created/restored/enhanced: impacted), and performance criteria.
- Such compensatory mitigation to be prioritized to occur as close to impacted areas as feasible and offset impacts of sensitive habitat types, or their functions and values. Consultation with USFWS and/or CDFW, may result in different mitigation areas and ratios.
- Location and acreage of sensitive habitat, including California tiger salamander, smith’s blue butterfly and listed plant species habitat, mitigation areas including ownership status, and existing functions and values of restored and/or enhanced sensitive habitats.
- Detailed sensitive habitat creation and/or restoration construction and planting techniques.
- Description and design of habitat requirements for sensitive wildlife known to occur in the study area and immediate surroundings (including but not limited to: California tiger salamander, smith’s blue butterfly, listed plant species, potential roosting bat species, and Monterey dusky-footed woodrat).

- Maintenance activities during the monitoring period including replanting native vegetation found within similar habitats and weed removal that avoid take of California tiger salamander and other sensitive wildlife species.
- Strategies to protect remaining sensitive habitats along the Trail corridor and surroundings from direct and indirect impacts from Trail users such as:
 - Interpretive signage including specific information about sensitive habitats and species and “leave no trace” content,
 - Green fencing (dense vegetative buffers consisting of plant species that deter human passage such as poison oak, Pacific blackberry, and stinging nettle) where appropriate, and
- Long-term quantitative and qualitative monitoring and reporting, and documenting the ability to meet or surpass performance criteria.
- Adaptive management strategies to:
 - identify shortcomings in meeting performance standards;
 - ensure long-term viability of existing, enhanced, restored, and/or newly-created sensitive biological resources;
 - enhance ecological functions and values of sensitive habitat mitigation areas, including California tiger salamander habitat, smith’s blue butterfly and listed plant species;
 - interpretive design features associated with the project to protect biological resources.

BIO-2(c) Implement Best Management Practices during Construction

The construction specifications for each Trail segment shall include the following BMPs to protect water quality and biological resources during project construction activities.

- Minimize removal or disturbance of existing vegetation outside of the footprint of project construction activities [refer to **Mitigation Measures BIO-2(a)**].
- Limit site access and parking, equipment storage and stationary construction activities to the designated staging areas to the maximum extent feasible.
- Prior to staging equipment on-site, clean all equipment caked with mud, soils, or debris from off-site sources or previous project sites to avoid introducing or spreading invasive exotic plant species. When feasible, remove invasive exotic plants from the Project area. All equipment used on the premises should be cleaned prior to leaving the site for other projects.
- Position all stationary equipment such as motors, pumps, generators, and/or compressors over drip pans. At the end of each day, move vehicles and equipment as far away as possible from any water body adjacent to the project site in a level staging area. Position parked equipment also over drip pans or absorbent material.
- If security fencing is installed around the construction site, allow for passage of wildlife to maintain a link between inland and coastal habitats including stream corridors during construction activities. Prohibit the use of plastic mesh safety fencing to prevent wildlife entrapment.
- Refuel and perform all vehicle and/or equipment maintenance off-site at a facility approved for such activities.
- To the greatest extent feasible, stabilize all exposed or disturbed areas in the project area. Install erosion control measures as necessary such as silt fences, jute matting, weed-free straw bales, plywood, straw wattles, and water check bars, and broadcasting weed-free straw wherever silt-laden water has the potential to leave the work site and enter the nearby streams.

Prohibit the use of monofilament erosion control matting to prevent wildlife entanglement. Modify, repair, and/or replace erosion control measures as needed.

- All nursery plants used in restoration shall be inspected for sudden oak death. Vegetation debris shall be disposed of properly and vehicles and equipment shall be free of soil and vegetation debris before entering natural habitats. Pruning tools shall be sanitized.

BIO-2(d) Implement Invasive Weed Prevention and Management Program

For activity that would occur within or adjacent to sensitive habitats, prior to start of construction an Invasive Weed Prevention and Management Program shall be developed by a qualified biologist to prevent invasion of native habitat by non-native plant species. A list of target species shall be included, along with measures for early detection and eradication. All disturbed areas shall be hydroseeded with a mix of locally native species upon completion of work in those areas. In areas where construction is ongoing, hydroseeding shall occur where no construction activities have occurred within six (6) weeks since ground disturbing activities ceased. If exotic species invade these areas prior to hydroseeding, weed removal shall occur in consultation with a qualified biologist and in accordance with the restoration plan. Landscape species shall not include noxious, invasive, and/or non-native plant species that are recognized on the Federal Noxious Weed List, California Noxious Weeds List, and/or California Invasive Plant Council Lists 1, 2, and 4. These requirements shall be included in all project plans and specifications.

Significance After Mitigation

Impacts would be less than significant with mitigation.

<p>Threshold 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?</p>
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Impact BIO-3 THE PROPOSED PROJECT WOULD RESULT IN IMPACTS TO STATE OR FEDERALLY PROTECTED WETLANDS THROUGH DIRECT REMOVAL, FILLING, HYDROLOGICAL INTERRUPTION, OR OTHER MEANS. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

Wetlands and waters are located in the study area along the Canyon Del Rey/SR 218 segment and may be affected by implementation of the proposed project. Construction of a paved trail at Laguna Grande would require widening of the existing trail within jurisdictional areas. This section of the alignment falls within the Coastal Zone. Under the California Coastal Act (CCA) and the City of Monterey’s Local Coastal Program, coastal wetlands receive protection from degradation or destruction caused by coastal development projects. An optional Trail alignment on the north side of Laguna Grande would be within the City of Seaside’s Local Coastal Program. The project corridor along Canyon Del Rey Creek is primarily on previously developed areas (existing trails, walkways), and no impacts to the creek are expected between Fremont Boulevard and SR 218; however, the project corridor runs through the middle of the emergent wetland between Canyon Del Rey Creek and SR 218 at Work Memorial Park. This wetland is likely to be USACE and CDFW jurisdictional since it is adjacent to Canyon Del Rey Creek. East of SR 218 at the Frog Pond Wetland Preserve, the proposed Trail width would be limited to eight feet, and a stable, permeable surface in lieu of pavement to minimize impacts. This would reduce potential impacts within the Frog Pond Wetland preserve; however, impacts would not be entirely avoided. Direct impacts are expected to include fill (i.e., materials such as soil, gravel, or pavement placed into a wetland feature) resulting from

new Trail development. Direct impacts may also occur if spills or leaks occur during construction. Alteration of the stormwater detention basins throughout the study area (in the Northern Marina and CSUMB Loop North segments) would require compliance with the governing municipalities NPDES permits; therefore, impacts to these features would be less than significant.

Mitigation Measures BIO-3(a) and **BIO-3(b)** shall be implemented to ensure no net loss of wetlands and to ensure impacts to jurisdictional features (other than storm detention basins) are less than significant. Impacts are less than significant with mitigation incorporated.

Mitigation Measures

BIO-3(a) Conduct Jurisdictional Delineation for Canyon Del Rey/SR 218 Segment

A qualified biologist shall complete a jurisdictional delineation of all features along the Canyon Del Rey/SR 218 segment. The jurisdictional delineation shall determine the extent of the jurisdiction for CDFW, USACE, RWQCB, and/or CCC, and shall be conducted in accordance with the requirement set forth by each agency. The result shall be a preliminary jurisdictional delineation report that shall be submitted to the implementing agency, USACE, RWQCB, CCC, and CDFW, as appropriate, for review and approval. Jurisdictional areas shall be avoided to the maximum extent possible. If jurisdictional areas are expected to be impacted, then the RWQCB would require a Waste Discharge Requirements (WDRs) permit and/or Section 401 Water Quality Certification (depending upon whether or not the feature falls under federal jurisdiction). If CDFW asserts its jurisdictional authority, then a Streambed Alteration Agreement pursuant to Section 1600 et seq. of the CFGC would also be required prior to construction within the areas of CDFW jurisdiction. If the USACE asserts its authority, then a permit pursuant to Section 404 of the CWA would likely be required.

BIO-3(b) Perform Restoration for Impacts to Waters and Wetlands

Impacts to waters and wetlands shall be mitigated through one or more options to meet the required amount of mitigation as required based on direct impacts from project development under the mitigation ratios outlined below. Mitigation for impacts to waters and wetlands can be achieved through the acquisition and in-perpetuity management of similar habitat or through the in-lieu funding of such through an existing mitigation bank. If the RCIS is adopted at the time of project implementation, mitigation may be facilitated through the RCIS program. Funding and management of internal mitigation areas can be managed internally. Funding and management of off-site mitigation lands shall be provided through purchase of credits from an existing, approved mitigation bank or land purchased by implementing entity and placed into a conservation easement or other covenant restricting development (e.g., deed restriction). Internal mitigation lands, or in lieu funding sufficient to acquire lands shall provide habitat at a 1:1 ratio for impacted lands, comparable to habitat to be impacted by individual project activity. Compensatory mitigation for sensitive vegetation communities can be combined with other compensatory mitigation (e.g., sensitive vegetation communities) as applicable.

RESTORATION AND MONITORING

If waters and/or wetlands cannot be avoided and will be impacted by construction of the Trail, a compensatory mitigation program shall be implemented in accordance with **Mitigation Measure BIO-1(c)** and the measures set forth by the regulatory agencies during the permitting process. All temporary impacts to waters and wetlands shall be fully restored to natural condition.

BIO-3(c) General Avoidance and Minimization

Potential jurisdictional features identified in jurisdictional delineation reports shall be avoided. Identified jurisdictional features shall be documented in a report detailing how all identified jurisdictional features shall be avoided.

- Any material/spoils generated from project activities shall be located away from jurisdictional areas or special-status habitat and protected from storm water run-off using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls (non- monofilament), covers, sand/gravel bags, and straw bale barriers, as appropriate.
- Materials shall be stored on impervious surfaces or plastic ground covers to prevent any spills or leakage from contaminating the ground and generally at least 50 feet from the top of bank (Canyon Del Rey/SR 218 segment).
- Any spillage of material shall be stopped if it can be done safely. The contaminated area will be cleaned and any contaminated materials properly disposed. For all spills, the project foreman or designated environmental representative will be notified.

Significance After Mitigation

Impacts would be less than significant with mitigation.

Threshold 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?

Impact BIO-4 THE PROPOSED PROJECT WOULD NOT 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 WILDLIFE NURSERY SITES. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The Northern Loop, National Monument Loop, Ryan Ranch, and Canyon Del Rey/SR 218 segments contain a natural landscape block and linkage connecting the former Fort Ord with undeveloped lands to the south, in the northern extent to the Carmel Valley and the Santa Lucia Mountain Range along the coastline. A key habitat linkage also occurs adjacent to the Northern Loop segment along the Salinas River Riparian Corridor.

The development of a paved trail within or near developed areas is not likely to significantly disrupt the movement of large mammals and birds because it would not present a substantial geographic barrier. In addition, the location of the Trail would not disrupt a critical wildlife movement corridor, as described in **Section 4.4.1, Wildlife Movement**. Additional reasons why impacts to wildlife movement would not be significant include:

1. Wildlife can cross a trail with relative ease, and the level and speed of trail use is not a substantial overall deterrent to wildlife moving across the proposed Trail.
2. The Northern Loop and Northern Marina segments are above the riparian corridor of the Salinas River and would not interfere with movement within this corridor.
3. The Trail does not represent a significant physical barrier to wildlife movement.
4. Trail usage and speeds would not be expected to deter overall wildlife movement across the trail.

5. The Trail is not located between two or more critical habitat areas or within a linkage connecting two or more critical habitat areas.

For these reasons, Trail development is not expected to result in significant changes to the genetic connectivity among local populations of wildlife, or within a broader regional context, and is not expected to prevent local wildlife movement. Impacts would be less than significant.

Creation of undercrossings at General Jim Moore Boulevard and Reservation Road may create connectivity between open spaces at the Frog Pond and undeveloped areas to the north and south of Reservation Road, respectively; a potentially beneficial impact of the project.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Impact BIO-5 IMPLEMENTATION OF THE PROPOSED PROJECT MAY CONFLICT WITH LOCAL POLICIES OR ORDINANCES PROTECTING BIOLOGICAL RESOURCES, SUCH AS A TREE PRESERVATION POLICY OR ORDINANCE. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Development of FORTAG would require some tree removal. The exact number, location, size, and species of trees would not be determined until final design of each individual segment. However, the most likely locations for tree removal would be:

- Oak woodland areas in the CSUMB Loop North, CSUMB Loop South, and National Monument Loop segments
- Riparian areas along the Salinas River in the Northern Loop segment
- Riparian areas in the Del Rey Oaks/SR 218 segment

A total of 10.8 acres of oak woodland is mapped along the Trail corridor, and new Trail development in these areas would likely result in removal of the largest number of trees. The majority of Trail alignment has been designed to improve existing roads and trails, and avoid impacts to natural vegetation communities to the greatest extent feasible. In some areas, trail design has been minimized in extent to reduce impacts. For example, within the Frog Pond Wetland Preserve the Trail width has been reduced to eight feet to minimize the loss of riparian vegetation. Additionally, the larger biological study area was developed to ensure that micro-siting of the Trail could be used to avoid impacts to biological resources where possible.

The northern Trail segments (Northern Marina and Northern Loop segments) are located in the City of Marina; central portions of the Trail (CSUMB Loop North, CSUMB South, and the National Monument Loop segments) are located in the City of Seaside and within the former Fort Ord; and southern Trail segments (Canyon Del Rey/SR 218 and Ryan Ranch segments) are located in the cities of Del Rey Oaks and Monterey. The General Plans and Municipal codes of these governing agencies include goals, policies, and ordinances intended to protect, preserve and enhance natural habitats and biological resources to varying degrees. The Municipal Codes for the City of Monterey, City of

Del Rel Oaks, City of Seaside, City of Marina, and Monterey County all require permitting for tree removal, and some provide additional protection for landmark or heritage trees. The City of Monterey has designated 15 landmark trees, none of which occur in the study area. Additionally, the City of Marina, City of Seaside, City of Monterey, City of Del Rel Oaks, Monterey County, and CSUMB include specific protections for oak woodlands.

Trees of sufficient size and species to require agency permitting were observed throughout the study area. Additionally, a row of Eucalyptus trees along Beach Road within the Northern Marina segment have been designated by the City of Marina as landmark trees.

FORTAG would be required to comply with the goals policies and measures discussed in **Section 4.4-2**, including via the application for tree removal permits and compliance with associated requirement (e.g., tree replacement) where applicable. Pursuant to compliance with these regulations, impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 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?

Impact BIO-6 THE PROPOSED PROJECT WOULD POTENTIALLY CONFLICT WITH THE PROVISIONS OF AN ADOPTED HABITAT CONSERVATION PLAN, NATURAL COMMUNITY CONSERVATION PLAN, OR OTHER APPROVED LOCAL, REGIONAL, OR STATE HABITAT CONSERVATION PLAN. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The project does not occur within the plan area for an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. However, the Fort Ord HCP is in a draft form, and could potentially be adopted prior to, or after various segments of the project are developed. The HCP would only be applicable to FORA lands. Until the Fort Ord HCP has been finalized, the Fort Ord HMP is the accepted governing document, along with the subsequent Biological Opinions as applicable. The HMP identifies habitat management requirements for the disposal and reuse of former Fort Ord lands. Parcels covered under the HMP within the study area are:

- Designated for Development
- Designated for Development with Reserve or Restrictions
- Designated as a Habitat Reserve
- Designated as a Habitat Corridor

Parcels designated for development under the HMP have no management restrictions under the HMP; therefore, no conflict is expected from the development of Trails on these parcels.

Parcels designated for development with reserve or restrictions in the Northern Marina segment include the North Fritzsche Habitat Reserve near the Marina Municipal Airport, within the Northern

Loop segment. Development on the parcel is restricted to airport support facilities (utilities, etc.) and a six-lane road. The proposed alignment on this parcel crosses grassland and scrub habitats. Alignment options in this segment follow an existing dirt access road. Monterey spineflower was observed elsewhere on the reserve along the edges of access roads (see **Appendix C**), and the species may occur along road margins in Northern Marina segment but are unlikely to occur in grassland and scrub habitat with no open sandy areas along the options. Paving of this section of road on Northern Marina segment would likely reduce spineflower habitat and may result in take of a listed species.

The landfill parcel designated under the HMP for “development with reserve or restrictions,” overlapping the Northern Loop and CSUMB Loop North segments, allows for development of 81 acres. This development was unspecified and therefore there would be no conflict with the HMP if the paved Trail were less than 81 acres of the parcel.

The restriction on the parcel designated for development with reserve or restrictions east of the Frog Pond require that no stormwater runoff from development of the parcel be allowed to enter the Habitat Reserve Parcel adjacent to the Frog Pond. Additionally, development of the proposed Trail would be required to comply with the development restrictions identified in the 2005 USFWS MOA for development on the Del Rey Oaks parcels (borderland parcels surrounding the Habitat Reserve Parcel. Development of FORTAG would not conflict with this requirement if it were designed to channel runoff away from the upper reaches of the tributary. The western ends of the CSUMB Loop North and CSUMB Loop South segments cross parcels designated with reserve restrictions. Parcels along the SR 1 corridor are managed by Caltrans, development within these parcels includes transportation facilities and improvements. On the west side of SR 1, parcels are within the State Parks Reserve along the coast. Development within these parcels is limited to 186 acres of development for recreational use, including trails. Development of FORTAG would not conflict with this restriction.

Development within parcels designated as habitat reserves is not allowed unless specified under the HMP. The goals of the HMP are to manage these lands for conservation and enhancement of habitat for threatened and endangered species. Within the study area, parcels designated as habitat reserves include the Monterey Peninsula Regional Parks Natural Area Expansion parcel on the west side of General Jim Moore Boulevard and the Frog Pond Natural Reserve, the Salinas River Habitat Management Area east of the Northern Loop segment, the University of California Natural Reserve System Fort Ord Natural Reserve on the Northern Marina segment east of Tallmon Street, and the East Garrison Parcel north of Inter-Garrison Road. The project corridor would directly cross these parcels and would need to be specified in the HMP.

One other parcel designated as habitat reserve within the study area is the eastern side of the National Monument Loop segment, where our survey buffer captures the edge of the NRMA. No Trail segments are proposed on this parcel; therefore, no conflict would occur.

The parcel designated as a habitat corridor occurs in the study area on the south side of Inter-Garrison Road west of the Jerry Smith Trail. The Northern Loop segment runs across the northern end of this parcel, approximately parallel with Inter-Garrison Road. Under the HMP some development will be allowed on this parcel for recreational use, including trails. Development of FORTAG would also comply with the requirement of the 2007 Biological Opinion (USFWS). Therefore, no conflicts are expected.

Much of the study area along the National Monument Loop segment falls within parcels designated as Borderland Development Areas Along the NRMA Interface, requiring best management practices to ensure no effects to NRMA.

Until the HCP is adopted, consultation with USFWS and CDFW is required on a project by project basis. The HCP would supersede the HMP, and although it is not out for public review, the HCP includes FORTAG as a “covered activity.” Therefore, no conflict with an adopted HCP or NCCP would occur. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

4.4.5 Cumulative Impact Analysis

The cumulative setting for biological resources includes proposed developments in the north end of Monterey County, including development in the cities of Monterey, Seaside, Del Rey Oaks, and Marina. This cumulative extent is appropriate because it encompasses the mosaic of representative habitat types (and associated biological resources) affected by the proposed project, including creeks and drainages, natural communities, agriculture, and coastal development. The 28-mile-long project corridor extends along three loops that roughly encircle the City of Marina, the CSUMB campus, and the City of Seaside, respectively. Project activities would occur in this area, and the interaction between the affected environment and project activities and facilities would be limited to this area.

Cumulative projects in this geographic extent are listed in **Table 3-1** in **Section 3, Environmental Setting**. They include, but are not limited to: the Del Rey Oaks RV Resort, Del Rey Oaks/Former Fort Ord Parcels, The Dunes on Monterey Bay, Marina Station, Sea Haven (formerly Marina Heights), Cypress Knolls Senior Residential, the Marina Downtown Vitalization Specific Plan, Campus Town Specific Plan, and many other housing, commercial, mixed use, and recreational projects. Both construction of the proposed housing projects and recreational projects would result in increased:

- Trampling, and degradation of sensitive habitats
- Disruption of habitat values associated with edge habitat
- Degradation of wetlands, creeks, drainages, riparian habitat, water quality, associated habitat values and functions, and ecosystems services; including channelization of storm runoff that may increase stream flow, erosion, and sedimentation
- Disruption of wildlife utilization of biological resources for foraging; hydration; cover, shelter, aestivation/hybernacula; nesting and breeding; movement, dispersal, and migration; including for CTS, sensitive and native nesting birds, and San Francisco dusky-footed woodrat
- Loss of sensitive natural communities and listed plant species including Monterey spineflower and Monterey gilia
- Introduction of litter (including human foods), urine and fecal matter, illegal off-leash dogs (causing harassment and mortality of wildlife)

Taken cumulatively, these impacts would result in degradation of the suite of habitat types and associated biological resources that occur within the cumulative setting in the Monterey/Seaside area, and could result in overall diminished regional ecological functions and values. However, impacts to biological resources would be considered and mitigated on a project-by-project basis. Permanent losses of sensitive habitats, including sensitive natural communities and listed species, associated with cumulative development would be mitigated to a less than significant level. As such, cumulative impacts would be significant but mitigable.

Mitigation measures for biological resources identified in this EIR would reduce project-level impacts to a less than significant level. **Mitigation Measure BIO-2(b)** prescribes the development of a project-specific Biological Resources Mitigation and Management Plan (MMP), which would mitigate permanent loss of sensitive natural communities, and mitigate impacts to other sensitive biological resources known to occur within the project corridor. The MMP would also protect and enhance the functions and values of habitats adjacent to the creeks and wetlands. The MMP would specifically address and mitigate for the degradation of sensitive natural communities, including ESHA, which would minimize the FORTAG's contribution to potential cumulative impacts. The MMP also requires the inclusion of strategies to protect remaining sensitive habitats along the project corridor from impacts associated with the operation of FORTAG. Outcomes would be monitored both quantitatively and qualitatively to ensure performance criteria are met, and adaptive management strategies would be employed to ensure long-term viability, functions, and values of biological resources in the immediate area around the project corridor. **Mitigation Measure BIO-2b** outlines the development of a Biological Resources Mitigation and Management Plan for this project, which would also minimize the project's contribution to cumulative impacts through long-term monitoring. **Mitigation Measures BIO-2(b) and BIO-3(b)** described below specifically target potential cumulative impacts, through the addition of conservation goals and objectives and provision for qualitative performance criteria and adaptive management into both MMPs.

Mitigation measures outlined in this section would reduce project-level impacts to a less than significant level, and would ensure that the project's contribution to cumulative biological resources impacts would not be cumulatively considerable.

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4.5 Cultural Resources

This section addresses potential impacts to cultural resources, including historical and archaeological resources. Historic built-environment resources may include engineering structures, buildings, objects, and monuments. Archaeological sites include evidence of past human occupation of the landscape, including village sites, shell middens, tool and food processing sites, privies, and refuse deposits. If a project would result in the alteration or destruction any of these resources, impacts to cultural resource may result.

4.5.1 Existing Conditions

a. Historical Background

Prehistory

The project corridor is in the Monterey Bay area, a cultural-historical geographic region that spans the central California coastline from Big Sur northward to just south of the San Francisco Bay. This region generally corresponds to southern Costanoan language groups.

The prehistory of the Monterey Bay area is categorized by to temporal “periods” that refer to the general social, economic, and environmental adaptations of Native California populations during a given time in prehistory. David A. Fredrickson’s Paleo-Archaic-Emergent cultural sequence is commonly used to interpret the prehistoric occupation of central California and is broken into three broad periods: the Paleoindian Period (10,000-6000 BCE); the three-staged Archaic Period, consisting of the Lower Archaic (6000-3000 BCE), Middle Archaic (3000-500 BCE), and Upper Archaic (500 BCE-CE 1000); and the Emergent Period (CE 1000-1800) (Frederickson 1974). The period sequence was updated in the 1990s to integrate data from the central California coast, and consists of the Paleoindian (9000-6500 BCE), Millingstone (6500-3500 BCE), Early (3500-1000 BCE), Early/Middle Transition (1000-600 BCE), Middle (600 BCE-CE 1000), Middle/Late Transition (CE 1000-1200), Late (CE 1200-1500), Protohistoric (CE 1500-1769), and Historic (post-CE 1769) periods (Jones 1993; Jones and Waugh 1995).

Archaeological sites dating to the Paleoindian and Millingstone periods (3500 BCE or earlier) in the Monterey Bay area are rare and the components are poorly defined. Sites from these periods have been identified, however, north of Santa Cruz in Scotts Valley and at Elkhorn Slough, and include crescent-shaped flaked tools, long-stemmed projectile points, cobble/core tools, and milling slabs and handstones. Archaeological evidence of the Late and Protohistoric periods (CE 1200-1769) is poorly represented in the Monterey Bay area, although sites dating to this period have been identified in the Santa Cruz Mountains and inside Santa Cruz city limits. Sites dating to these periods include schist, clamshell, and abalone disc beads; small side-notched projectile points; hopper and bedrock mortars; milling slabs; pestles; and handstones.

For over a quarter century, Native American settlement and subsistence patterns in the Monterey Bay area have been understood in terms of a forager-collector model, which suggests that small mobile foraging groups characterized Monterey Bay area settlement before 2,000 years ago. These foraging groups established temporary residential bases near seasonally available resource patches and gathered food daily, with no storage of food. Foragers were eventually displaced by “collectors,” who occupied year-round or semi-permanent residential sites and did not relocate residential sites to seasonal resource patches. More recently, however, the validity of the forager-

collector model for understanding the subsistence and settlement practices from the Monterey Bay Area has been questioned, and Native American settlement-subsistence patterns in the region are a research issue that future archaeological research may help to clarify (Jones et al. 2007).

Ethnography

The Project corridor falls within the traditional tribal territory of the Ohlone. For a description of Ohlone ethnography, refer to **Section 4.15**, Tribal Cultural Resources.

History

The Monterey County coast was first visited by Europeans in 1542 with the expedition of Juan Rodríguez Cabrillo, and later in 1602 by Sebastián Vizcaíno (Bean 1968). By the eighteenth century, Spain developed a three-pronged approach to secure its hold on the territory called Alta (upper) California and counter against other foreign explorers. The Spanish established military forts known as presidios, as well as missions and pueblos (towns) throughout Alta California. The presidio at Monterey and Mission San Carlos Borromeo were established in 1770, although the mission was moved a year later to present-day Carmel (California Missions Foundation 2019; San Carlos Cathedral 2019). Monterey was named the capital of Baja and Alta California in 1776. The pueblo of Monterey grew as residents expanded outside the royal presidio with Spanish soldiers marrying, raising families or retiring (Crane 1991; City of Monterey Museums 2019).

In 1822, residents of Alta California received word that Mexico had won its war for independence from Spain. At this time, the pueblo of Monterey had a population of several hundred and the newly established Mexican government decreed the California ports open to increased trade with foreigners under the constitution of 1824 (Bean 1968; Crane 1991). Hallmarks of the Mexican Period in California are the secularization of mission lands, which was fully accomplished by 1836, the issuance of large land grants to soldiers and prominent citizens, and cattle ranching for the hide and tallow trade. As Mexico opened California to international trade, Monterey became the primary port of entry, and the exportation of hide and tallow was one of the most important parts of the economy (City of Monterey Museums 2019).

The Mexican-American War ended with the Treaty of Guadalupe Hidalgo which was signed in 1848, officially making California a territory of the U.S. However, U.S. jurisdiction over California had begun two years earlier following the “Battle of Monterey” on July 7, 1846. U.S. naval forces under Commodore John D. Sloat opposed a small group of Mexican coast guard and shore batteries in a minor skirmish, and most of the Mexican detachments protecting the city surrendered without firing any shots (California State Military Museums 2016).

The Gold Rush brought a multitude of new settlers to California beginning in 1848, and in 1850 Monterey became one of the first counties in the state, with the city of Monterey serving as the original county seat (City of Monterey Museums 2019). Agriculture was a significant industry that fostered diverse settlement of the region. This industry and the region’s growth were advanced by the development of railroads in the mid- to late-nineteenth century, including the Southern Pacific, which extended southward from San Francisco, and a narrow gauge line between Monterey and Salinas (Ryan and Breschini 2010). Monterey Bay also became a leading fishing and whaling port.

Periods of large population growth in Monterey County occurred during the 1920s and again in the years following World War II (California State Data Center 2012). By the 1930s, the county’s agricultural industry had shifted to corporate owners and large operators who not only grew the crops but also packed and shipped them (Ryan and Breschini 2010). Presently, Monterey County

supports strong tourism, military, fishing, and agriculture industries (Advameg Inc. 2019). The Salinas Valley is known as the “Salad Bowl of the World.” Legendary author John Steinbeck was born in Salinas, and Monterey County has served as the setting for several of his books. As of the latest census, Monterey County has grown to include 415,000 residents, with Salinas being the most populated city in the county (California State Data Center 2012).

b. Project Corridor Setting

Information found in the following section summarizes the Phase I Cultural Resources Study prepared by Rincon Consultants, Inc. for FORTAG (Haas et al. 2019). The study contains sensitive information regarding archaeological resources and is therefore not included as an appendix to this EIR. The study included the proposed FORTAG alignment plus a 200-foot buffer (cultural study area). The study included a cultural resources records search of the study area at the Northwest Information Center (NWIC) at Sonoma State University and a pedestrian survey of the study area. The study resulted in the identification of nine cultural resources in the cultural study area: the 1st Street undercrossing (Bridge No. 44-0200), 8th Street overcrossing (Bridge No. 44-0202), Fort Ord PUC (Bridge No. 44-0081), the Southern Pacific Railroad line (SPRR) (P-27-002923), a prehistoric habitation site (P-27-00385), a historic fence line (P-27-0002416), a railroad berm alignment (P-27-002417), FORTAG-Iso-1, and FORTAG-Iso-2.

As a result of the survey, four built-environment resources with potential to be impacted by the project were recorded and evaluated for national, state and local significance: the 1st Street UC (Bridge No. 44-0200), 8th Street OC & OH (Bridge No. 44-0202), Fort Ord PUC (Bridge No. 44-0081), and the SPRR (P-27-002923). Various other buildings and structures were identified throughout the project corridor. However, because the proposed project would not alter them either directly or indirectly, these buildings and structures were not recorded or considered further as part of the current study.

1st Street UC (Bridge No. 44-0200) is an undercrossing located in the CSUMB Loop South segment where 1st Street (aka Divarty Street) crosses under SR 1 and a railroad right-of-way, in the City of Seaside, California at post mile 83.27. Developed in 1973, the box girder bridge is constructed of concrete, has a cast-in-place concrete deck, and a railing (BridgeReports.com 2019a; California Department of Transportation [Caltrans] 2018). Caltrans evaluated Bridge No. 44-0200 for eligibility in the National Register of Historic Places (NRHP) and classified it a category 5 bridge, meaning it is not eligible for the NRHP (Caltrans 2018a). Since its last evaluation, there is no new evidence to suggest the bridge would now be eligible for listing in the NRHP. In addition, the subject structure is recommended ineligible for listing in the CRHR and for designation as a City of Seaside Historic Landmark.

8th Street OC and OH (Bridge No. 44-0202) is an overcrossing located in the CSUMB Loop North segment on 8th Street in the City of Marina, California at post mile 83.89. Approximately 342 feet in length, it carries a roadway and pedestrian walkway over SR 1 and a railroad right-of-way. Constructed in 1973, the box girder bridge is constructed of continuous concrete and features three main spans, a cast-in-place concrete deck, and a railing (BridgeReports.com 2019b; Caltrans 2018a). Caltrans evaluated Bridge No. 44-0202 for eligibility in the NRHP and classified it a category 5 bridge, meaning it is not eligible for the NRHP. Since its last evaluation, there is no new evidence to suggest the bridge would now be eligible for listing in the NRHP. In addition, the subject structure is recommended ineligible for listing in the CRHR.

Fort Ord Public Utilities Commission (PUC) (Bridge No. 44-0081) is a pedestrian undercrossing located in the CSUMB Loop South segment south of 1st Street where a walking path used to cross

under SR 1 and the railroad right-of-way in the City of Seaside, California. Located at post mile 83.24, the concrete slab structure has one span. The opening was sealed/covered with grooved metal panels at an unknown time. Bridge No. 44-0081 was originally constructed in 1943 (Caltrans 2018) at a time when a large amount of infrastructure was being constructed at Fort Ord, including beach firing ranges on the sand dunes west of SR 1 (California State Parks 2014). Subsequently, Bridge 44-0081 was widened/extended in 1973 (Caltrans 2018a), and then closed off at an unknown time. Caltrans evaluated Bridge No. 44-0081 for eligibility in the NRHP and classified it a category 5 bridge, meaning it is not eligible for the NRHP. Since its last evaluation, there is no new evidence to suggest the bridge would now be eligible for listing in the NRHP. In addition, the subject structure is recommended ineligible for listing in the CRHR and for designation as a City of Seaside Historic Landmark.

The SPRR line crosses the 200-foot cultural study area in the Canyon Del Rey/SR 218 segment, but is not located directly within the project footprint. In the vicinity of the current project corridor, the resource is characterized by rails running adjacent to Roberts Lake. No sleepers/ties, fasteners or spikes were observed. The existing Monterey Bay Coastal Recreation Trail (Coastal Rec Trail) intersects the resource. Segments of the standard gauge SPRR have been previously recorded over several years by various individuals, including Stephen Wee of JRP Historical Consulting in 1999, K. Jones and F. Arellano of Pacific Legacy, Inc. in 2008, and M. Millett and J.P. Glover of PAR Environmental Services in 2008 (Millett and Glover 2008). The 200-foot segment within the current project corridor was one of many segments previously recorded by Jones and Arellano in 2008. Jones and Arellano did not evaluate or assign a California Historical Resource status code to the segments of the resource which they recorded. However, resource records prepared by M. Millett and J.P. Glover of PAR Environmental Services in 2008 assigned other segments of the resource a California Historical Resource status code of 6Z meaning it was found ineligible for the NRHP, CRHR or Local designation through survey evaluation. In 1999, Stephen Wee of JRP Historical Consulting recorded additional segments of the SPRR line in King City and Castroville, Monterey County, and assigned the resource California Historical Resource status code 6 meaning it was determined ineligible for NRHP listing (Wee 1999). The current study finds the 200-foot subject segment of the SPRR does not appear to be eligible for listing in the NRHP, CRHR, or as a City of Seaside Historical Landmark. The segment has been bisected by a concrete trail and had its ballast and ties removed. As a result, it lacks integrity and is unable to convey any potential significant associations it may possess.

The records search conducted for FORTAG identified three previously recorded archaeological sites (**P-27-000385**, **P-27-0002416**, and **P-27-002417**) in the cultural study area. According to the site record, **P-27-000385** was a prehistoric habitation site located somewhere on the Fort Ord base but destroyed in the 1940s. The recorded site boundary extends into the Northern Loop, CSUMB Loop North, CSUMB Loop South, National Monument Loop, and Ryan Ranch segments. Because the exact location of the site is unknown, NWIC mapped the site as covering the entirety of former Fort Ord. Given **P-27-000385** was described as destroyed and there is no specific location information for the site, there is no way to relocate **P-27-000385**. No evidence of prehistoric remains matching the description of **P-27-000385** was identified during the pedestrian survey. Based on these results, P-27-000385 is not located in the cultural study area.

Resources **P-27-0002416** and **P-27-0002417**, identified from the records search recorded in the Northern Marina segment, were not located during the pedestrian survey and have been removed since their original recording. Both resources were removed and are therefore not considered historical resources under CEQA.

During the survey, two prehistoric isolated finds were identified (FORTAG Iso-1, a metate identified in the CSUMB Loop North segment, and FORTAG Iso-2, two obsidian flakes identified in the Canyon Del Rey/SR 218 segment). As isolates, both resources were recommended ineligible for listing in the CRHR as their data potential was exhausted during the initial recording and there is no way to associate the artifacts with significant persons or events.

4.5.2 Regulatory Setting

This section includes a discussion of the applicable state and local laws, ordinances, regulations, and standards governing cultural resources.

a. Federal

National Register of Historic Places

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

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

b. State

California Register of Historical Resources

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

PRC Section 5024.1 requires an evaluation of historical resources to determine their eligibility for listing in the CRHR. The purpose of the register is to maintain listings of the state’s historical resources and to indicate which properties are to be protected from substantial adverse change. The criteria for listing resources in the CRHR were expressly developed to be in accordance with

previously established criteria developed for listing in the NRHP, as enumerated according to CEQA below:

15064.5(a)(3) [...] Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code, Section 5024.1, Title 14 CCR, Section 4852) including the following:

- (1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
- (2) Is associated with the lives of persons important in our past
- (3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
- (4) Has yielded, or may be likely to yield, information important in prehistory or history

15064.5(a)(4) The fact that a resource is not listed in or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

15064.5(b) A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

In addition, if a project can be demonstrated to cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b], and [c]).

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

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

Impacts to significant cultural resources that affect the characteristics of any resource that qualify it for the NRHP or adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. These impacts could result from physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired (*CEQA Guidelines* Section 15064.5 [b][1]). Material impairment is defined as demolition or alteration in an adverse manner [of] those characteristics of an historical resource that convey its historical

significance and that justify its inclusion or eligibility for inclusion in the CRHR (*CEQA Guidelines* Section 15064.5[b][2][A]).

California Public Resources Code

Section 5097.5 of the California Public Resources Code (PRC) states:

“No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.”

As used in this PRC section, “public lands” means lands owned by or under the jurisdiction of the State or any city, county, district, authority, or public corporation, or any agency thereof. Consequently, local agencies are required to comply with PRC 5097.5 for their own activities, including construction and maintenance, as well as for permit actions (e.g., encroachment permits) undertaken by others.

Codes Governing Human Remains

The disposition of human remains is governed by Health and Safety Code Section 7050.5 and PRC Sections 5097.94 and 5097.98, and falls within the jurisdiction of the Native American Heritage Commission (NAHC). If human remains are discovered, the county coroner must be notified within 48 hours, and there should be no further disturbance to the site where the remains were found. If the remains are determined by the coroner to be Native American, the coroner is responsible for contacting the NAHC within 24 hours. The NAHC, pursuant to PRC Section 5097.98, will immediately notify those persons it believes to be most likely descended from the deceased Native Americans so they can inspect the burial site and make recommendations for treatment or disposal.

California Coastal Commission

The Project corridor extends into the coastal zone. According to PRC Section 30244, “where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.”

c. Regional and Local

Monterey County

Monterey County General Plan

The Conservation-Open Space Element of the County of Monterey General Plan contains the following goals and policies relating to cultural resources that are relevant and/or applicable to the project:

- **Goal COS-5.** Encourage the conservation and identification of the county's archaeological resources.
- **Policy OS-6.1.** Important representative and unique archaeological sites and features shall be identified and protected for all parcels with undisturbed natural conditions (i.e., ungraded

properties), consistent with State Office of Historic Preservation guidelines and definitions employed on a statewide basis, including Phase I, II, and III studies.

- **Policy OS-6.3.** New development proposed within moderate or high sensitivity zones, or within 150 feet of a known recorded archaeological and/or cultural site, shall complete a Phase I survey including use of the regional State Office of Historic Preservation or the California Native American Heritage Commission's list of sacred and traditional sites. Routine and Ongoing Agricultural Activities shall be exempted from this policy in so far as allowed by state or federal law.
- **Policy OS-6.4.** Development proposed in low sensitivity zones are not required to have an archaeological survey unless there is specific additional information that suggests archaeological resources are present.
- **Policy OS-6.5.** Policies and procedures shall be established that encourage development to avoid impacts to sensitive archaeological sites including:
 - **OS-6.5a.** Designing or clustering development to avoid archaeological site deposits, historic sites and resources, and Native Californian cultural sites;
 - **OS-6.5b.** Requiring dedication of permanent conservation easements where subdivisions and other developments can be planned to provide for such protective easements.
- **Policy OS-6.6.** Efforts by historical, educational or other organizations to improve the public's recognition of the County's cultural heritage and the citizen's responsibilities for archaeological or cultural resource preservation shall be encouraged. The County shall adopt a uniform set of guidelines to define Phase I, II, and III significance assessment and data recovery programs. Similar guidelines shall be created to set standards for requirements for consultation with Native Californian descendants to establish procedures for determining the presence or absence of sacred or traditional sites. These guidelines shall address monitoring requirements and participation in cultural resource data recovery programs.

Monterey County Code

Chapter 18 Section 25 of the Monterey County Code delineates the county's policies on the Preservation of Historic Resources, and the criteria a resource must meet to be eligible for designation as a historical resource or a historic district, as follows:

An improvement, natural feature, or site may be designated an historical resource and any area within the County may be designated a historic district if such improvement, natural feature, site, or area meets the criteria for listing on the National Register of Historic Places, the California Register of Historic Resources, or one or more of the following conditions are found to exist:

A. Historical and Cultural Significance

1. The resource or district proposed for designation is particularly representative of a distinct historical period, type, style, region, or way of life.
2. The resource or district proposed for designation is, or contains, a type of building or buildings which was once common but is now rare.
3. The resource or district proposed for designation was connected with someone renowned.
4. The resource or district proposed for designation is connected with a business or use which was once common but is now rare.

5. The resource or district proposed for designation represents the work of a master builder, engineer, designer, artist, or architect whose talent influenced a particular architectural style or way of life.
 6. The resource or district proposed for designation is the site of an important historic event or is associated with events that have made a meaningful contribution to the nation, State, or community.
 7. The resource or district proposed for designation has a high potential of yielding information of archaeological interest.
- B. Historic, Architectural, and Engineering Significance
1. The resource or district proposed for designation exemplifies a particular architectural style or way of life important to the County.
 2. The resource or district proposed for designation exemplifies the best remaining architectural type of a community.
 3. The construction materials or engineering methods used in the resource or district proposed for designation embody elements of outstanding attention to architectural or engineering design, detail, material or craftsmanship.
- C. Community and Geographic Setting
1. The proposed resource materially benefits the historic character of the community.
 2. The unique location or singular physical characteristic of the resource or district proposed for designation represents an established and familiar visual feature of the community, area, or county.
 3. The district is a geographically definable area, urban or rural possessing a significant concentration or continuity of site, buildings, structures, or objects unified by past events, or aesthetically by plan or physical development.
 4. The preservation of a resource or resources is essential to the integrity of the district.

City of Marina

The City of Marina Municipal Code does not include policies that address cultural resources. The Environmental Protection and Conservation chapter of the Marina General Plan does contain policies relating to cultural and scenic resources, as follows.

- **Policy 1.** All archaeological resources which may be present in the Marina Planning Area shall be protected and preserved. To this end, development proposed in areas of high archaeological sensitivity, i.e., the terraces and benches along the Salinas River, the peripheries of vernal ponds, and coastal beaches, shall be required to undertake a reconnaissance by a qualified archaeologist, and, where artifacts are identified, to protect and preserve such resources.
- **Policy 2.** The historical significance of former Fort Ord should be reflected in new development and/or reuse of at least a small portion of the University Village City of Marina General Plan 127 area near the 8th Street overcrossing and at the Fort Ord State Park entrance.

City of Seaside

City of Seaside General Plan

2004 CITY OF SEASIDE GENERAL PLAN

The City of Seaside General Plan was adopted by City Council Resolution 04-59 on August 5, 2004. Cultural resources are addressed in the Conservation/Open Space Element. The goals policies, and implementation plans include protecting high sensitivity archeological resources, architecturally significant buildings, and historic places within Seaside. The 2004 General Plan identifies the Plan Area as being outside the area of high sensitivity for archaeological resources. (City of Seaside 2004, Figure COS-4.)

2040 CITY OF SEASIDE GENERAL PLAN (DRAFT)

The Draft *2040 City of Seaside General Plan* includes a goal and several policies intended to help preserve important cultural resources. Goal C-7 aims to preserve, conserve, enhance, and educate the public about Seaside's cultural resources and includes policies to identify and conserve resources, to protect Native American cultural resources, to guide historic preservation efforts including restoration, wayfinding signage, documentation, and public education. Implementation programs included in the Draft Seaside 2040 includes producing a cultural resources sensitivity map (C5) and establishing and maintaining a cultural resources database (C6).

City of Seaside Municipal Code

Chapter 17 Section 68 of the City of Seaside Municipal Code delineates the City's policies on Historic and Cultural Resource Preservation and the procedures through which a resource would be designated a Historic Landmark by the City Council, as follows:

The Council may designate an improvement, natural feature, or site as an historic landmark and any area within the City as an historic district in compliance with this section, based on the Council's evaluation of the age of the affected structures, distinguishing characteristics, distinct geographical area, familiar visual feature, significant achievement, and/or other distinctive feature.

City of Monterey

City of Monterey General Plan

The Historic Preservation Element of the City of Monterey General Plan contains the following policy relating to archaeological resources relevant and/or applicable to the project:

- **Policy a.4.** Utilize the CEQA process for projects located in archaeologically sensitive areas to identify and mitigate potential impacts on archaeological resources.

City of Monterey Municipal Code

Chapter 38 Article 15 of the City of Monterey Municipal Code delineates the City's policies on Historic Preservation, and the criteria a resource must meet to be eligible for Historic Zoning. Two types of Historic Zoning are identified and presented below.

H-1 LANDMARK OVERLAY ZONING

H-1 zoning is intended to identify and protect the most important historic resources in the City, generally including properties with statewide, national, or international historic significance where that significance would be recognized outside of the City, and the City is steward of those resources are preserved for its citizens and a larger public. The City recognizes its responsibility for preserving these resources for a national and international public, and the H-1 zone may be established without owner consent in order to fulfill that responsibility. The H-1 zone includes a strong series of incentives to support and encourage preservation of the historic resources.

Criteria for Adoption: H-1 Landmark zoning may be applied only to properties which meet National Register of Historic Places criteria defined in National Register Bulletin 15, and the property is the first, last, only, rare, or most significant resource of its type in the region. Notwithstanding the foregoing, the H-1 Landmark zoning district may be applied to adobe resources built prior to 1879 and other "H" zoned resources as of March 7, 2000, which may not meet National Register integrity standards. The National Register Criteria are generally described as historic event, person, design or information potential, and are fully defined in National Register Bulletin 15.

H-2 CITY HISTORIC RESOURCE OVERLAY ZONING

H-2 zoning is intended to identify and protect historic resources in the City that would be recognized as resources with local historic importance and their historic importance would not generally be recognized outside the immediate area of the Monterey Peninsula, and the City is steward of those resources are preserved for its citizens. The City encourages the preservation of these resources with a strong set of incentives; however, the ultimate decision to rezone and ultimately to preserve them is left to the property owner.

Criteria for Adoption. H-2 City Historic Resource zoning may be applied to properties which meet National Register or California Register Criteria as defined. The Criteria are generally described as historic event, person, design, or information potential, and are fully defined in National Register Bulletin 15 and in California PRC 5024.1 and CCR Title 14 Chap 11.5, Sec 4850 et seq.

City of Del Rey Oaks

The City of Del Rey Oaks Municipal Code does not include policies concerning cultural resources. The Open Space/Conservation Goals, Policies, and Programs section of the City of Del Rey Oaks General Plan contains the following goals relating to cultural resources that are relevant and/or applicable to the project:

- **Goal C/OS-14.** The City will study the opportunities for the preservation of the stonehouse building located adjacent to Highway 218 and Highway 68.
- **Goal C/OS-15.** If development of a site uncovers cultural resources, the recommendations of Appendix K, of the Guidelines for Implementation of the California Environmental Quality Act shall be followed for identification, documentation and preservation of the resource.
- **Goal C/OS-16.** The City shall document and record data or information relevant to prehistoric and historic cultural resources which may be impacted by proposed development. The accumulation of such data shall act as a tool to assist decision-makers in determinations of the potential development effects to prehistoric and historic resources located within the City.

4.5.3 Methodology and Significance Thresholds

Methodology

This section describes the potential environmental impacts of FORTAG and all FORTAG design options relevant to cultural resources. The methodologies and significance thresholds employed for the cultural resources impact analyses are described below and in Section 4.5.2, *Regulatory Setting*, above.

To determine potential impacts to cultural resources, existing studies and documentation were reviewed, field surveys conducted, and additional study conducted to evaluate identified resources for listing in the NRHP and CRHR.

A Phase I Cultural Resources Study was prepared for the proposed alignment (Haas et al. 2019). The study contains sensitive information regarding archaeological resources and is therefore not included as an appendix to this EIR. The study included the proposed FORTAG alignment plus a 200-foot buffer (cultural study area). The study included a cultural resources records search of the study area and at NWIC at Sonoma State University and a pedestrian survey of the cultural study area. Based on this study, as summarized in the Project Corridor Setting above, the following cultural resources are evaluated for potential project impacts:

- Archaeological sites (P-27-0000385, P-27-0002416, and P-27-0002417). These resources are not located within or have been removed from the cultural study area and will not be impacted by the FORTAG.
- Archaeological isolates (FORTAG-Iso-1 and FORTAG-Iso-2). These resources are ineligible for listing in the NRHP and CRHR and therefore are not considered historical resources.
- Historic-era built environment resources included the 1st Street UC (Bridge No. 44-0200), 8th Street OC & OH (Bridge No. 44-0202), Fort Ord PUC (Bridge No. 44-0081) and a 200-foot segment of the Southern Pacific Railroad line (P-27-002923). These resources are ineligible for listing in the NRHP and CRHR and for local designation; therefore, they are not considered historical resources.

Significance Thresholds

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

1. Cause a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to *CEQA Guidelines* Section 15064.5
3. Disturb any human remains, including those interred outside of dedicated cemeteries

The significance of an archaeological deposit and subsequently the significance of any impact are determined by the criteria of the CRHR and the following criteria pertaining to unique archaeological resources, whereby the resource:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information

- a. Has a special and particular quality such as being the oldest of its type or the best available example of its type
- b. Is directly associated with a scientifically recognized important prehistoric or historic event or person

If an archaeological resource does not meet either the historical resource or the more specific “unique archaeological resource” definition, impacts do not need to be mitigated [13 PRC 15064.5 (e)]. Where the significance of a site is unknown, it is presumed to be significant for the purpose of the EIR investigation.

4.5.4 Project Impact Analysis

Threshold 1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?
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Impact CUL-1 THE PROJECT WOULD NOT CAUSE SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A HISTORICAL RESOURCE. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The Phase I Cultural Resources Study identified four built environment properties within the cultural study area that have the potential to be impacted by the project: the 1st Street undercrossing (**Bridge No. 44-0200**), 8th Street overcrossing (**Bridge No. 44-0202**), Fort Ord PUC (**Bridge No. 44-0081**), and the Southern Pacific Railroad line (**P-27-002923**). None of these, however, are considered historical resources under CEQA as they are recommended ineligible for federal, state, or local designation. **Bridge Nos. 44-0200, 44-0202 and 44-0081** lack association with persons or events influential in the broad patterns of history and are not significant for embodying the distinctive characteristics of a type, period or method of construction. Additionally, archival research did not indicate they have the potential to yield information important in prehistory or history. The segment of the SPRR line in the cultural study area has been extensively altered; thus, it lacks integrity and is unable to convey any potential significant associations it may possess.

Additional buildings and structures were identified within the project corridor; however, none are proposed to be directly altered or demolished as part of the FORTAG project. Further, the proposed project would not indirectly alter any of these properties as project activities primarily consist of the development of a paved Trail, including road crossings, amenity areas, and two overcrossings, or adding striping to existing surfaces. Much of the Trail would follow existing roadways or paths, and although portions of the Trail would be located on land without a pre-existing trail or roadway, the project would not directly alter or damage any buildings or structures, nor would it create a substantial adverse change to their setting due to the low-scale nature of the project design. As a result, impacts to historical resources would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Impact CUL-2 THE PROJECT MAY CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF AN ARCHAEOLOGICAL RESOURCE. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

Three archaeological sites (**P-27-000385, P-27-002416, and P-27-002417**) are recorded on the FORTAG but were previously removed and will therefore not be impacted by the project. Two prehistoric isolates (**FORTAG-Iso-1 and FORTAG-Iso-2**) were identified during the pedestrian survey for FORTAG but are ineligible for listing on the CRHR and are not historical resources for the purposes of CEQA; therefore, they would not be impacted by the project.

The Monterey Bay area, in general, is known to have been densely occupied prior to European contact and is considered an archaeologically sensitive area. In addition to a long prehistoric occupation in the region, given the historic use of the area by former Fort Ord and the history of agricultural use of the project vicinity, historic archaeological sites are also a possibility. Although only two archaeological isolates were identified during the current survey, thick vegetation is abundant throughout the project corridor, which resulted in overall poor ground visibility. This poor visibility could have obscured previously unrecorded archaeological resources.

Project construction would result in ground disturbance that could unearth and damage previously unidentified archaeological sites. Project ground disturbance may inadvertently damage or destroy previously unidentified archaeological sites. Impacts would be potentially significant. This impact would be similar across all Trail segments.

Implementation of **Mitigation Measure CUL-2**, described below, would reduce the impact to archaeological resources by requiring archaeological construction monitoring and steps to address unanticipated discoveries during construction.

Mitigation Measures

CUL-2 Conduct Archaeological Monitoring during Construction

Prior to the commencement of construction activities, an orientation meeting shall be conducted by an archaeologist with the general contractor, subcontractor, and construction workers associated with earth disturbing activities for all Trail segments. The orientation meeting shall describe the potential of exposing archaeological resources, the types of cultural materials may be encountered, and directions on the steps that shall be taken if such a find is encountered. Topics to be discussed shall include, but not be limited to, Ohlone material culture and a brief history of the Former Fort Ord.

During construction, a qualified archaeologist shall be present during all earth moving activities involving excavation for all Trail segments. If previously unknown or undiscovered archaeological resources are encountered during ground-disturbing construction activities, the archaeological monitor shall have the authority to halt work, and the implementing agency shall be notified at once. The qualified archaeologist shall assess the nature, extent, and potential significance of any archaeological remains. The implementing agency shall implement a Phase II subsurface testing program to determine the resource boundaries in the trail corridor/impact area, assess the integrity of the resource, and evaluate the site's significance through a study of its features and artifacts.

If the site is determined to be significant, the implementing agency may choose to cap the resource area, using culturally sterile and chemically neutral fill material, and shall include open space

preservation and environmentally sensitive area signage for the site to ensure its protection from development. A qualified archaeologist shall be retained to monitor the placement of fill upon the site and to make open space preservation and interpretive recommendations. If a significant site will not be capped, the results and recommendations of the Phase II study shall determine the need for a Phase III data recovery program designed to record and remove significant archaeological materials that could otherwise be tampered with. Phase III data recoveries typically include extensive subsurface excavation and a full analysis of additional background research, the publication of scholarly work, and preparation of interpretive materials designed to exhaust the data potential of an archaeological site, in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties (National Park Service 2017). If the site is determined insignificant, no capping and/or further archaeological investigation shall be required.

Significance After Mitigation

Impacts would be less than significant with mitigation.

Threshold 3: Would the project disturb any human remains, including those interred outside of formal cemeteries?

Impact CUL-3 THE PROJECT MAY DISTURB HUMAN REMAINS, INCLUDING THOSE INTERRED OUTSIDE OF FORMAL CEMETERIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

No human remains are known to exist on the project corridor. However, the discovery of human remains is always a possibility during ground-disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the Monterey County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the NAHC, which will determine and notify a most likely descendant, who shall complete the inspection of the site within 48 hours of being granted access. With adherence to existing regulations, impacts related to disturbing human remains would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

4.5.5 Cumulative Impact Analysis

The geographic scope for considering cumulative impacts to cultural resources is based on the historic, ethnographic, and prehistoric period use patterns of the project area and surrounding region. The geographic extent of cumulative impacts for the historic period is the Monterey Bay Area, including the entirety of former Fort Ord. The geographic scope for the pre-colonial period is the Monterey Bay area and the entirety of the Ohlone traditional territory. This is appropriate because cultural resources identified in this larger region will be similar in type and style to those that are or may be present in the project corridor.

The proposed project, in conjunction with other nearby past, present, and reasonably foreseeable probable future projects in the region as listed in **Table 3-1** in **Section 3, Environmental Setting**, could adversely impact cultural resources. Cumulative development within this geographic scope would continue to disturb areas with the potential to contain historical resources, archaeological resources, and human remains. For other developments that would have significant impacts on cultural resources, similar conditions and mitigation measures described herein would be imposed on those other developments consistent with the requirements of CEQA, along with requirements to comply with all applicable laws and regulations governing said resources.

As described under **Impact CUL-1**, FORTAG would not result in impacts to historical resources. Cumulative development could impact known or unknown built environment historical resources. This could lead to a potentially significant cumulative impact. However, future projects would be reviewed separately by the appropriate jurisdiction and undergo environmental review when it is determined that the potential for significant impacts exists. In the event that future cumulative projects would result in impacts to known or unknown built environment historical resources, impacts to such resources would be addressed on a case-by-case basis, and appropriate mitigation measures developed. Because of the low-scale nature of the FORTAG project design and its avoidance of alteration or damage to built environment properties in the project corridor, the project's contribution to cumulative impacts to historical resources would not be cumulatively considerable.

Cumulative development could impact known or unknown archaeological resources and archaeological resources that may be considered historical resources. This would be a potentially significant cumulative impact. However, cumulative projects would be reviewed separately by the appropriate jurisdiction and undergo environmental review when it is determined that the potential for significant impacts exists. In the event that future cumulative projects would result in impacts to known or unknown cultural resources, impacts to such resources would be addressed on a case-by-case basis, and would likely be subject to mitigation measures similar to those imposed for the proposed project. As such, cumulative impacts would be less than significant with mitigation. As described under **Impact CUL-2, Mitigation Measure CUL-2** would ensure that project-level impacts to unknown resources are adequately mitigated. These mitigation measures provide for archaeological monitoring of project ground disturbance and identify the steps to be taken if archaeological resources are encountered. After implementation of **Mitigation Measure CUL-2**, FORTAG's contribution to cumulative impacts to archaeological resources would not be cumulatively considerable.

Cumulative projects listed in **Table 3-1** would involve ground-disturbing activities which could encounter human remains. If human remains are found, the cumulative projects would be required to comply the State of California Health and Safety Code Section 7050.5, as described for the proposed project under **Impact CUL-3**, above. With adherence to existing regulations relating to human remains, cumulative impacts would be less than significant and the proposed project's contribution would not be cumulatively considerable.

4.6 Energy

This section describes existing regional energy use, outlines the regulatory framework applicable to energy, and evaluates impacts related to energy consumption as a result of FORTAG construction and operation. To assure project decisions consider energy implications, CEQA requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. Air quality impacts are discussed in **Section 4.3, *Air Quality***; greenhouse gases and climate change impacts are discussed in **Section 4.8, *Greenhouse Gas Emissions/Climate Change***; and traffic impacts are discussed in **Section 4.14, *Transportation***, of this EIR. The analysis herein is supported by data and information from those sections and topic analyses.

4.6.1 Existing Conditions

a. Existing Energy Use

Existing land uses along the FORTAG corridor include agricultural, coastal, institutional and public (such as the CSUMB campus and the Marina Municipal Airport), open space, and developed areas with a mix of residential and commercial uses. **Section 4.1, *Aesthetics***, includes a detailed discussion of the existing landscape units in the FORTAG corridor, categorized into four types: mixed development near the coast, mixed development near agricultural lands, mixed development near open space lands, and mixed urban/suburban development areas. The Trail corridor itself (defined under the study area in **Section 2.4**) is primarily undeveloped or already used as a trail system along portions. The existing energy use of the FORTAG project study area is nominal. Therefore, only a summary of statewide and regional energy use is provided in this section.

State

California is one of the lowest per capita energy users in the United States, ranked 48th in the nation, due to its energy efficiency programs and mild climate (U.S. Energy Information Administration [EIA] 2019a). In 2017, statewide direct use of electricity was 12,794,860 million kilowatt hours (kWh) (EIA 2019b), and California consumed 20,375 million therms¹ of natural gas (EIA 2019c). Additionally, total consumption of motor gasoline for California's transportation sector amounted to 3,175 trillion Btu in 2017 (EIA 2019a). According to the EIA, one gallon of motor gasoline is equivalent to 120,333 Btu (EIA 2019d). Therefore, California's transportation sector consumed approximately 26.4 billion gallons of motor gasoline in 2017. The single largest end-use sector for energy consumption in California is transportation (40 percent), followed by industrial (23 percent), commercial (19 percent), and residential (18 percent) land uses (EIA 2019a).

Region

In 2018, Monterey County consumed approximately 2,488 million kWh of electricity (CEC 2019a) and 112 million therms of natural gas (CEC 2019b). Electricity and natural gas service for Monterey County is currently provided by Monterey Bay Community Power (MBCP) and Pacific Gas & Electric (PG&E). MBCP allows communities to buy clean-source electric power, while retaining PG&E's role

¹ The EIA reports that natural gas consumption in 2017 was 2,110,829 million cubic feet. Cubic feet was converted to therms using a conversion factor of 1.036 therms per 100 cubic feet (EIA 2019e).

in maintaining power lines and providing customer service (MBCP 2018). MBCP is the locally-controlled default electric generation service provider for all customers in Monterey County (Herrera 2019). Electricity comes from solar, wind and hydroelectric generation (MBCP 2018). PG&E continues to provide natural gas service to Monterey County.

Regional vehicle miles traveled and associated fuel consumption were estimated in the EIR for the 2040 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and Regional Transportation Plans for Monterey, San Benito and Santa Cruz Counties (AMBAG 2018). Fuel consumption in Monterey County was approximately 345.92 million gallons of gasoline and 52.64 million gallons of diesel fuel in 2015 (AMBAG 2018).

4.6.2 Regulatory Setting

Federal

Federal Energy Policy and Conservation Act

In 1975, Congress enacted the federal Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration (NHTSA) is responsible for establishing additional vehicle standards. In 2010, fuel economy standards were set at 27.5 miles per gallon for new passenger cars and 23.5 miles per gallon for new light-duty trucks. Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States (City of Ukiah 2017).

Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 was signed into law. In addition to setting increased Corporate Average Fuel Economy (CAFE) standards for motor vehicles, the act includes the following provisions related to energy efficiency:

- Renewable Fuel Standard (RFS) (Section 202)
- Appliance and lighting efficiency standards (Sections 301–325)
- Building energy efficiency (Sections 411–441)

This federal legislation requires ever-increasing levels of renewable fuels to replace petroleum (Section 202, RFS). The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the Energy Independence and Security Act of 2007, the RFS program was expanded in several key ways that laid the foundation for achieving significant reductions of greenhouse gas (GHG) emissions through the use of renewable fuels, for reducing imported petroleum, and for encouraging the development and expansion of the nation's renewable fuels sector (City of Ukiah 2017).

USEPA and NHTSA Joint Rule for Vehicle Standards

On April 1, 2010, the U.S. Environmental Protection Agency (USEPA) and the NHTSA announced a joint final rule to establish a national program consisting of new standards for light-duty vehicles model years 2012 through 2016. The joint rule is intended to reduce GHG emissions and improve

fuel economy. In August 2012, the USEPA and NHTSA approved a second round of GHG and CAFE standards for model years 2017 and beyond (USEPA and NHTSA 2012). These standards will reduce motor vehicle GHG emissions to 163 grams of CO² per mile, which is equivalent to 54.5 miles per gallon if this level were achieved solely through improvements in fuel efficiency, for cars and light-duty trucks by model year 2025.

The first phase of the CAFE standards (for model years 2017 to 2021) are projected to require, on an average industry fleet-wide basis, a range from 40.3 to 41.0 miles per gallon in model year 2021. The second phase of the CAFE program (for model years 2022 to 2025) is projected to require, on an average industry fleet-wide basis, a range from 48.7 to 49.7 miles per gallon in model year 2025. The second phase of standards has not been finalized due to the statutory requirement that NHTSA set average fuel economy standards not more than 5 model years at a time. The regulations also include targeted incentives to encourage early adoption and introduction into the marketplace of advanced technologies to dramatically improve vehicle performance, including incentives for electric, natural gas, and hybrid vehicles (Dudek 2017).

State

California Energy Action Plan

The CEC, in collaboration with CPUC, is responsible for preparing the California Energy Action Plan (EAP), which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The 2003 California Energy Action Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs; and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access.

In the October 2005 Energy Action Plan II (EAP II), the CEC and CPUC updated their energy policy vision by adding some important dimensions to the policy areas included in the original EAP, such as information on the emerging importance of climate change, transportation-related energy issues, and research and development activities. The CEC adopted an update to the EAP II in February 2008 that supplements the earlier EAPs and examines the state's ongoing actions in the context of global climate change. In 2008, the CEC determined an update to the plan was not needed due to state regulations such as Assembly Bill (AB) 32.

Warren-Alquist Act

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

Integrated Energy Policy Report

SB 1389 (Chapter 568, Statutes of 2002; PRC 25300–25323) required CEC to “conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The Energy Commission shall use these assessments and forecasts

to develop and evaluate energy policies and programs that conserve resources, protect the environment, ensure energy reliability, enhance the state’s economy, and protect public health and safety” (PRC Section 25301[a]). This work culminated in the Integrated Energy Policy Report (IEPR).

CEC adopts an IEPR every 2 years and an update every other year. The 2017 IEPR is the most recent IEPR, which was adopted on April 16, 2018 (CEC 2018). The 2017 IEPR provides a summary of priority energy issues currently facing the state, outlining strategies and recommendations to further the state’s goal of ensuring reliable, affordable, and environmentally responsible energy sources. Energy topics covered in the IEPR include progress toward statewide renewable energy targets, integrated resource planning, distributed energy resources, transportation electrification, solutions to increase resiliency in the electricity sector, energy efficiency, transportation electrification, barriers faced by disadvantaged communities, demand response, transmission and landscape-scale planning, the preliminary transportation energy demand forecast, renewable gas, updates on Southern California electricity reliability, natural gas outlook, and climate adaptation and resiliency.

Senate Bill 1078: California Renewables Portfolio Standard Program

SB 1078 (Chapter 516, Statutes of 2002) establishes a Renewable Portfolio Standard (RPS) for electricity supply. The RPS requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide 20 percent of their supply from renewable sources by 2017. This target date was moved forward in 2006 under SB 107 to require compliance by 2010. In addition, electricity providers subject to the RPS must increase their renewable share by at least 1 percent each year. The outcome of this legislation will impact regional transportation powered by electricity. As of 2016, the state has reported that a minimum of 25 percent of electricity has been sourced from certified renewable sources.

Senate Bill X1-2: California Renewable Energy Resources Act

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB X1-2 sets a three-stage compliance period requiring all California utilities, including independently owned utilities, energy service providers, and community choice aggregators, to generate 20 percent of their electricity from renewables by December 31, 2013; 25 percent by December 31, 2016; and 33 percent by December 31, 2020. SB X1-2 also requires the renewable electricity standard to be met increasingly with renewable energy that is supplied to the California grid from sources within, or directly proximate to, California. SB X1-2 mandates that renewables from these sources make up at least 50 percent of the total renewable energy for the 2011–2013 compliance period, at least 65 percent for the 2014–2016 compliance period, and at least 75 percent for 2016 and beyond.

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

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

Assembly Bill 1493: Reduction of Greenhouse Gas Emissions

AB 1493 (Chapter 200, Statutes of 2002), known as the Pavley Bill, amended Health and Safety Code sections 42823 and added 43018.5 requiring CARB to develop and adopt regulations that achieve

maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles, light-duty trucks, and other vehicles used for noncommercial personal transportation in California.

Assembly Bill 1007: State Alternative Fuels Plan

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

Assembly Bill 2076: Reducing Dependence on Petroleum

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

Bioenergy Action Plan, Executive Order S-06-06

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

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

Energy Action Plan II

The CEC, California Power Authority, and CPUC adopted an Energy Action Plan (EAP) to establish goals for California's energy future and a means to achieve these goals. EAP II supports and expands

on the commitment of state agencies to cooperate and reflect on the energy actions since original EAP adoption. EAP II includes a coordinated implementation plan for state energy policies that have been articulated through EOs, instructions to agencies, public positions, and appointees' statements; the CEC's IEPR; CPUC and CEC processes; agencies' policy forums; and legislative direction.

California Air Resources Board

CARB has a number of regulations and standards that seek to limit emissions from mobile sources and pollution from specific types of operation or source pollution. These policies indirectly impact energy consumption. These include:

- **In-Use Off-Road Diesel Rule:** Imposes limits on idling, restricts the addition of older vehicles, and requires the retirement or replacement of older engines depending on their fleet size category.
- **Phase 1 Medium- and Heavy-Duty Engine and Vehicle GHG Emission Standards:** establishes standards for new medium- and heavy-duty engines and vehicles sold in California
- **Advanced Clean Cars Plan:** Coordinates regulating smog-causing pollutants and GHG emissions through developing more stringent emissions standards for vehicles and improving the number of zero-emission vehicles on the roadways.

Regional

Electric Vehicle Infrastructure for the Monterey Bay Area Plan

In 2013, the Association of Monterey Bay Area Governments (AMBAG) published the Electric Vehicle Infrastructure for the Monterey Bay Area Plan. The Plan includes a siting plan to identify potential charging locations and presents a framework for establishing an electric vehicle charging network in the Monterey Bay Area (AMBAG 2018). The three major goals of the siting plan are to:

- Provide charging opportunities for plug-in electric vehicle owners that lack access to home charging;
- Extend the range of plug-in electric vehicle for intra- and interregional travel along various corridors; and
- Maximize all electric miles by providing ample opportunities for charging while minimizing the risk of stranded plug-in electric vehicles.

Monterey Bay Plug-In Electric Vehicle Readiness Plan

The Electric Vehicle Infrastructure for the Monterey Bay Area Plan was the precursor to the Monterey Bay Plug-In Electric Vehicle Readiness Plan, a comprehensive regional plan to promote plug-in electric vehicle adoption throughout the region completed in July 2013. The goal of the Readiness Plan is to encourage the mass adoption of plug-in electric vehicles in the region and reduce greenhouse gas emissions by providing a toolbox of recommended approaches for public, private and non-profit organizations. The Readiness Plan identifies specific regional targets for significantly expanding plug-in electric vehicle adoption in the Monterey Bay Area by 2020 and 2025 (AMBAG 2018).

AMBAG Energy Watch Program

AMBAG works closely with PG&E to promote reduced energy use and energy savings through the AMBAG Energy Watch Program. AMBAG Energy Watch reduces energy use by providing the following resources to eligible PG&E customers:

- Developing Energy Action Strategies for jurisdictions,
- Compiling greenhouse gas inventories for jurisdictions,
- Energy assessments and audits,
- Direct installation of energy efficient equipment,
- Technical assistance and financial incentives for energy efficient retrofits in municipal buildings,
- Energy efficiency seminars and training courses in the region,
- Information on other PG&E energy efficiency programs and services, and
- Assistance accessing financing for energy efficiency projects.

In addition, AMBAG Energy Watch has developed programs that would help reduce GHG emissions including preparing local GHG inventories, climate action planning support services and Energy Action Strategies (AMBAG 2018).

Local

The project corridor extends through the following local jurisdictions, as shown in **Figure 2-5** in **Section 2, Project Description**. The relevant plans with energy goals and policies are described below.

Monterey County

The Conservation/Open Space Element of the County's General Plan (Monterey County 2010) includes Goal OS-9, which promotes efficient energy use. The goal is supported by eight policies that include use of renewable energy, concentration of development, and installation of energy efficiency and weatherization features.

City of Marina

The City of Marina General Plan, as amended in 2010, refers to making energy conservation a priority for development in Community Goal 1.18, Housing Policy 2.31, Transportation Policy 3.5, and Environmental Protection and Conservation Policy 4.112. A list of recommended policies in the Housing Availability Ordinance includes approving land use patterns that reduce energy use by reducing vehicle miles travelled (City of Marina 2010).

City of Seaside

The Conservation/Open Space Element of the Seaside General Plan includes Goal COS-7 to encourage energy conservation. The goal is supported by Policy COS-7.1, which is to participate in local, regional, and State programs that promote energy conservation (City of Seaside 2004). The City of Seaside is currently in the process of updating their General Plan. The draft Seaside 2040 General Plan includes a Healthy + Sustainable Community Element with a goal of promoting energy efficient buildings that use energy from renewable sources.

City of Monterey

The Housing Element of the City of Monterey's General Plan (City of Monterey 2005) includes Program d.1.3 encouraging the provision of weatherization upgrades, and Goal j promoting sustainability and energy efficiency in residential development. Additionally, the Conservation Element includes an Energy section with Goal e encouraging the effective and efficient use of energy through education and supporting energy conservation programs.

City of Del Rey Oaks

The City of Del Rey Oaks General Plan does not specifically address energy use. However, the Natural Resources chapter includes policy C/OS-13 related to air quality that would reduce fossil fuel use through reduced dependence on vehicle transportation (City of Del Rey Oaks 1997).

4.6.3 Methodology and Significance Thresholds

Methodology

This section describes the potential environmental impacts of the proposed FORTAG project and all FORTAG design options relevant to energy. Fuel consumption as a result of project construction was calculated using the annual CO₂e emissions calculated by CalEEMod, Version 2016.3.2, and kg/CO₂ conversion factors from the USEPA for diesel fuel and motor gasoline. The assumptions for the construction period are listed in detail in **Section 4.3, Air Quality**, and **Section 4.8, Greenhouse Gas Emissions/Climate Change**. The total GHG emissions calculated in **Section 4.8** were used to estimate total fuel consumption. Consistent with the methodology described in **Section 4.8**, the worst-case fuel usage for the National Monument Loop segment was used to estimate fuel usage per mile of construction. Total fuel usage was then calculated based on the per mile estimate. A conversion factor of 10.21 kg/CO₂ is assumed for diesel fuel and a conversion factor of 8.78 kg/CO₂ is assumed for gasoline to convert estimated GHG emissions to estimated fuel use (USEPA 2018).

Installation of the Trail is anticipated to require import of aggregate and asphalt concrete. These are typical materials for paved trails and would not require new or unusual manufacturing or delivery techniques. While sources of paving material and exact types and quantities are unknown at this time, use of aggregate and asphalt pavement for the proposed FORTAG project would be similar to other paved active transportation facilities (i.e., trail systems). Additionally, the energy use associated with the manufacture of paving materials is largely outside the control of TAMC. It is assumed that individual producers would be required to meet applicable federal, state, and regional energy regulations. In its recent statement of reasons regarding amendments to the *CEQA Guidelines*, the California Natural Resources Agency noted that a full "lifecycle" analysis that would account for energy used in building materials and consumer products is generally not required (CNRA 2018). Therefore, this analysis focuses on direct energy use from operation of construction equipment, and embodied energy² in the pavement needed for the proposed project is not addressed in the analysis below.

² For a given material or product, the embodied energy represents the total sum of energy inputs for each process in the production chain. This includes the extraction of raw materials, processing of these materials, transportation, disposal, and any other treatments that require energy.

Significance Thresholds

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

1. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources
2. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

4.6.4 Project Impact Analysis

Threshold 1: 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?

Impact E-1 THE PROJECT WOULD NOT RESULT IN THE UNNECESSARY, INEFFICIENT, OR WASTEFUL USE OF ENERGY. THIS IMPACT WOULD BE LESS SIGNIFICANT.

Construction

During construction, the proposed project would result in an increase in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment. Construction would require excavation of material sources, clearing and grubbing, grading, placement of aggregate base and asphalt concrete, revegetation, installation of signs, and installation of lighting and other safety related features necessary to meet current design practice.

Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during all phase of construction. The types of equipment would include diesel-powered construction and transportation equipment, ranging from haul and vendor trucks, to bulldozers and front-end loaders. Worker vehicle trips to and from the project corridor would result in gasoline consumption.

Total diesel and gasoline use from operation of construction equipment, worker trips, haul truck trips, and vendor truck trips is listed by fuel type in **Table 4.6-1** based on the results of the GHG analysis in **Section 4.8, Greenhouse Gas Emissions/Climate Change**. Detailed calculations and consumption by source is provided in **Appendix D**. As shown in **Table 4.6-1**, the proposed project would require a total of approximately 242,447 gallons of diesel fuel and 17,126 gallons of gasoline.

Table 4.6-1 Estimated Construction Fuel Consumption

Fuel Type	Fuel Consumption for National Monument Loop (gallons)	Estimated Fuel Consumption per Mile of Construction (gallons)	Total Fuel Consumption for FORTAG (gallons)
Diesel	69,011	8,659	242,447
Gasoline	4,875	612	17,126

Notes: Diesel fuel use includes fuel use from construction equipment, haul truck trips, and vendor truck trips. Assumes a conversion factor of 10.21 kg/CO₂ for diesel fuel. Gasoline use includes fuel use from worker vehicle trips. Assumes a conversion factor of 8.78 kg/CO₂ for motor gasoline. Detailed calculations provided in Appendix E.

Sources: USEPA 2018 (conversion factor)

All construction required for the proposed Trail would be typical for the region and project type. The project does not include unusual circumstances that would require unusually high energy use for construction, such as helicopter delivery or highly specialized construction waste disposal requirements. Limitations on idling of vehicles and equipment and requirements that equipment be properly maintained would result in fuel savings. California regulations (13 CCR 2449(d)(3), 2485) limit idling from both on-road and off-road diesel-powered equipment and are enforced by CARB. Also, given the high cost of fuel, contractors have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction. Fuel use would be limited to the amount necessary for project completion. As stated in **Section 4.6.1**, annual fuel consumption in Monterey County in 2015 was approximately 345.92 million gallons of gasoline and 52.64 million gallons of diesel fuel in 2015 (AMBAG 2018). For comparison, total fuel consumption over the multi-year construction of the Trail would be approximately 0.005 percent of annual regional diesel fuel consumption, and 0.00005 percent of annual gasoline fuel consumption. Construction of the Trail would result in a nominal increase in regional fuel consumption during construction.

Therefore, energy consumption during construction would be necessary for project completion and would comply with applicable regulations, so that energy consumption would not be wasteful or inefficient. This impact would be less than significant.

Operation

Operation of the proposed project would not be anticipated to generate more than a nominal increase in vehicle trips to and from the Trail. The project consists of a new pedestrian and bicycle facility, which may be used as a form of active transportation that would likely result in a net decrease in fuel consumption compared to existing conditions. Maintenance of the Trail would be incorporated into existing underlying jurisdiction maintenance schedules for existing facilities, and vehicle trips would be minimal and intermittent. Therefore, operation of the proposed project would not result in an increase in fuel use. The project includes minimal components, such as lighting, that would require electricity to be provided from MBCP or natural gas to be provided from PG&E. Trail and pedestrian crossing lighting would be solar powered where practical. Therefore, operation of the project would result in a minimal increase in energy demand and would not be wasteful, inefficient, or unnecessary. This impact would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?
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Impact E-2 THE PROPOSED PROJECT WOULD NOT CONFLICT WITH STATE OR LOCAL PLANS FOR RENEWABLE ENERGY OR ENERGY EFFICIENCY. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Neither TAMC or AMBAG, nor any of the local jurisdictions have adopted renewable or energy efficiency plans that would be applicable to the project. Energy efficiency goals within general plans focus on building energy efficiency and are not applicable to the project. The project does not propose any new parking facilities that would be subject to AMBAG electric vehicle infrastructure

plans. The project does not propose any components that would require electricity to be provided from MBCP, or natural gas from PG&E. Therefore, the proposed project would not conflict with the ability of service providers to meet renewable energy goals. As discussed under **Impact E-1**, the proposed project would likely reduce total VMT in the region and result in a net decrease in regional demand for fossil fuels. Therefore, this impact would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

This impact would be less than significant.

4.6.5 Cumulative Impact Analysis

The MBCP and PG&E are the service providers that purchase and make available electricity and natural gas resources in the region; therefore, the geographic scope for impacts related to energy and natural gas consumption encompasses both the MBCP and PG&E service areas. Regional fuel consumption is considered at the regional level through the 2040 MTP/SCS and local Regional Transportation Plans; therefore, the geographic scope for impacts related to fuel consumptions is the AMBAG region.

The projects listed in **Table 3-1** in **Section 3**, *Environmental Setting*, were considered during the analysis of cumulative impacts. Implementation of all the projects listed in **Table 3-1** would presumably increase demand for electricity from MBCP, natural gas from PG&E, and fuel consumption regionally. For example, the Dunes on Monterey Bay project would introduce new residential and office buildings that would be new to the MBCP and PG&E service areas. The potential population increase associated with this project could contribute to regional fuel consumption.

Similar to the proposed project and in compliance with CEQA, the cumulative projects listed in **Table 3-1** would be required to demonstrate that energy use required for construction and operation would not be unnecessary, wasteful, or inefficient. New development projects would be required to comply with increasingly stringent statewide energy efficiency regulations, such as the Title 24 building standards. Regionally, local jurisdictions would require compliance with general plan standards and the applicable portions of the 2040 MTP/SCS or regional transportation plan to encourage energy efficient development and land use patterns that reduce vehicle miles travelled. The projects would be reviewed separately by the appropriate jurisdiction; and in the event that potential energy inefficiencies are identified for these projects, mitigation measures would be identified that would likely require sustainability features be incorporated into the project.

Construction of the proposed project and other reasonably foreseeable projects would be required to comply with applicable regulations, so that construction-related energy consumption would not be wasteful or inefficient. The cumulative impact would be less than significant, and the project's contribution would not be cumulatively considerable.

Once operational, the proposed FORTAG project would not include any components that would require energy or natural gas service. Further, as an active recreation facility and non-vehicular transportation corridor, the proposed project is not expected to result in a net increase in vehicle miles traveled, as discussed in **Section 4.14**, *Transportation*, and the associated fuel consumption.

Therefore, the proposed FORTAG project's contribution to cumulative impacts related to energy consumption would not be cumulatively considerable.

4.7 Geology and Soils

This section evaluates the environmental effects related to geologic hazards, soil hazards, and paleontological resources associated with the proposed FORTAG project. The temporary and long-term impacts on the geologic stability of the project corridor and the exposure of Trail users to seismic and geologic hazards are analyzed in this section. The analysis is based on a review of existing resources, technical data, and applicable laws, regulations, and guidelines.

4.7.1 Existing Conditions

a. Geologic Setting

The project corridor is located in Monterey County, which has approximately 100 miles of coastline, two coastal ranges (the Santa Lucia and Gabilan ranges) and two main valleys (the Salinas and Carmel valleys). The interaction between Pacific and North American tectonic plates has created the primary geologic formations in Monterey County, as uplift along faults is largely responsible for the formation of the Coast Ranges, including the Santa Lucia and Gabilan ranges. These granitic and metamorphic mountain ranges trend in a northwest-southeast direction, with the Santa Lucia Range along the coast and the Gabilan Range along Monterey County's eastern border (Regional Water Management Group 2013).

The Coast Ranges geomorphic province is characterized by complex folding and faulting formed at the intersection of two tectonic plates: the Pacific and the North American plates. The San Andreas Fault strongly influences the geomorphic and strong northwestern geologic structural orientation in the San Francisco Bay Region, which includes the Monterey Bay Area. The San Andrea Fault is a right-lateral, strike-slip fault that forms a portion of the boundary between the Pacific and North American tectonic plates. In Northern and Central California, the San Andreas Fault system consists of numerous fault segments that have accommodated different components of the total displacement at different times. Movement across the plate boundary is concentrated on the San Andreas Fault but is also distributed across a number of other faults, including the Monterey Bay, San Gregorio-Palo Colorado and Rinconada faults among others in the San Andreas Fault system (Norris and Webb 1990, United States Geological Survey [USGS] 2018). shows the regional faults in relation to the project corridor.

b. Groundshaking and Fault Rupture

USGS defines active faults as those that have had surface displacement within Holocene time (about the last 11,000 years). Surface displacement can be recognized by the existence of cliffs in alluvium, terraces, offset stream courses, fault troughs and saddles, the alignment of depressions, sag ponds, and the existence of steep mountain fronts. Potentially active faults are faults that have had surface displacement during the last 1.6 million years. Inactive faults have not had surface displacement within the last 1.6 million years (USGS 1977).

According to the Monterey County Multi-Jurisdictional Hazard Mitigation Plan, several active faults run through the County (Monterey County 2015). These faults include but are not limited to the San Andreas, Reliz, Chupines, Monterey Bay-Tularcitos, Berwick, Navy, Sylvan, Hatton and Vergeles Faults. Both the Reliz and Chupines Faults cross the proposed alignment as shown in **Figure 4.7-1**. Historically, most of the earthquakes that have occurred in Monterey County originated from movement along the San Andreas Fault system, which runs through the southeastern portion of the

county for approximately 30 miles. This fault system is the most active in California and, in its entirety, runs 800 miles along the California coastline. Fault rupture can occur during severe earthquakes and produce ground surface displacements (vertical or horizontal offsets) ranging in severity. Where these faults cross structures (roads, bridges, buildings), substantial damage can occur which can cause injury to occupants or users. The highest potential for fault rupture is directly on the active faults. Monterey County also is susceptible to high levels of ground-shaking due to the numerous active faults which pass through or border the county.

Surface Rupture

Faults generally produce damage in two ways: ground shaking and surface rupture. In some cases, fault movement propagates upward through subsurface materials and causes displacement at the ground surface as a result of differential movement. Surface rupture is limited to areas very near the fault. Surface rupture usually occurs along traces of known or potentially active faults, although many historic events have occurred on faults not previously known to be active. As discussed above, the Reliz Fault runs northeast of the project corridor, the Chupines Fault runs southwest of the project corridor, and the Monterey Bay-Tularcitos Fault runs north to south west of the proposed alignment. As shown in **Figure 4.7-1**, both the Reliz and Chupines Faults cross the proposed alignment.

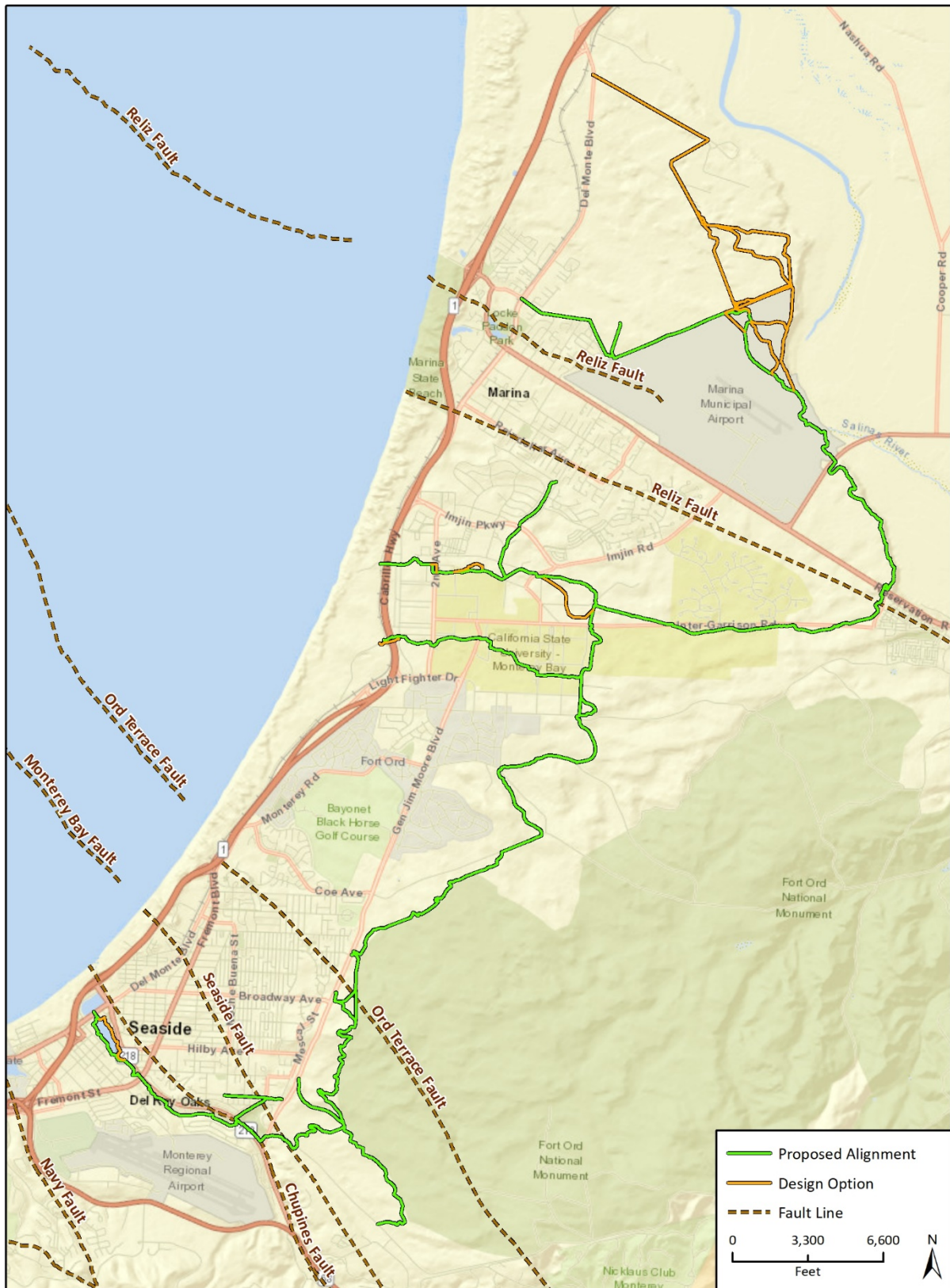
Liquefaction and Lateral Spreading

Liquefaction is defined as the sudden loss of soil strength due to a rapid increase in soil pore water pressure resulting from seismic ground shaking. Liquefaction potential is dependent on such factors as soil type, depth to groundwater, degree of seismic shaking, and the relative density of the soil. Liquefaction can cause serious damage to foundations and bases of structures. Liquefaction in a subsurface layer can cause lateral spreading of the ground surface, which usually occurs along weak shear zones that have formed within the liquefiable soil layer. The severity of ground deformation due to liquefaction is dependent on the density and depth of the liquefied material. Shallower materials experience the most severe effects. Lateral spreading has generally been observed to take place in the direction of a free face (e.g., a retaining wall or slope). The majority of the project corridor is located in an area where with a low potential for liquefaction, as shown in **Figure 4.7-2** (Monterey County 2008).

c. Soils

As mapped by the Natural Resource Conservation Service (NRCS), the Northern Marina segment, Northern Loop segment, CSUMB Loop South segment, and the northern portion of the National Monument Loop segment are mapped as Oceano Series. Ocean soils occur near the ocean in central and southern-central California and are of moderate extent in the Major Land Resources Area (MLRA) 14d (USDA NRCS 2001a). These segments are comprised of Oceano loamy sand 2 to 15 percent slopes, as shown on **Figure 4.7-3**. The Canyon Del Rey/SR 218 segment, southern portion of the National Monument Loop segment, and CSUMB Loop North segment are mapped as Baywood Series, which consists of deep excessively drained soils that formed in old sand dunes near the coast (USDA NRCS 2014). These segments are comprised of Baywood sand 2 to 15 percent slopes, as shown on **Figure 4.7-3**. In addition to the Ocean Series and Baywood Series, other soil types within the project corridor include Arnold loamy sand, Arnold-Santa Ynez complex, Rindge muck, and Xerorthents, dissected, as shown on **Figure 4.7-3**. Portions of the proposed alignment, such as the southern portion of the Ryan Ranch segment, are mapped with these soil types.

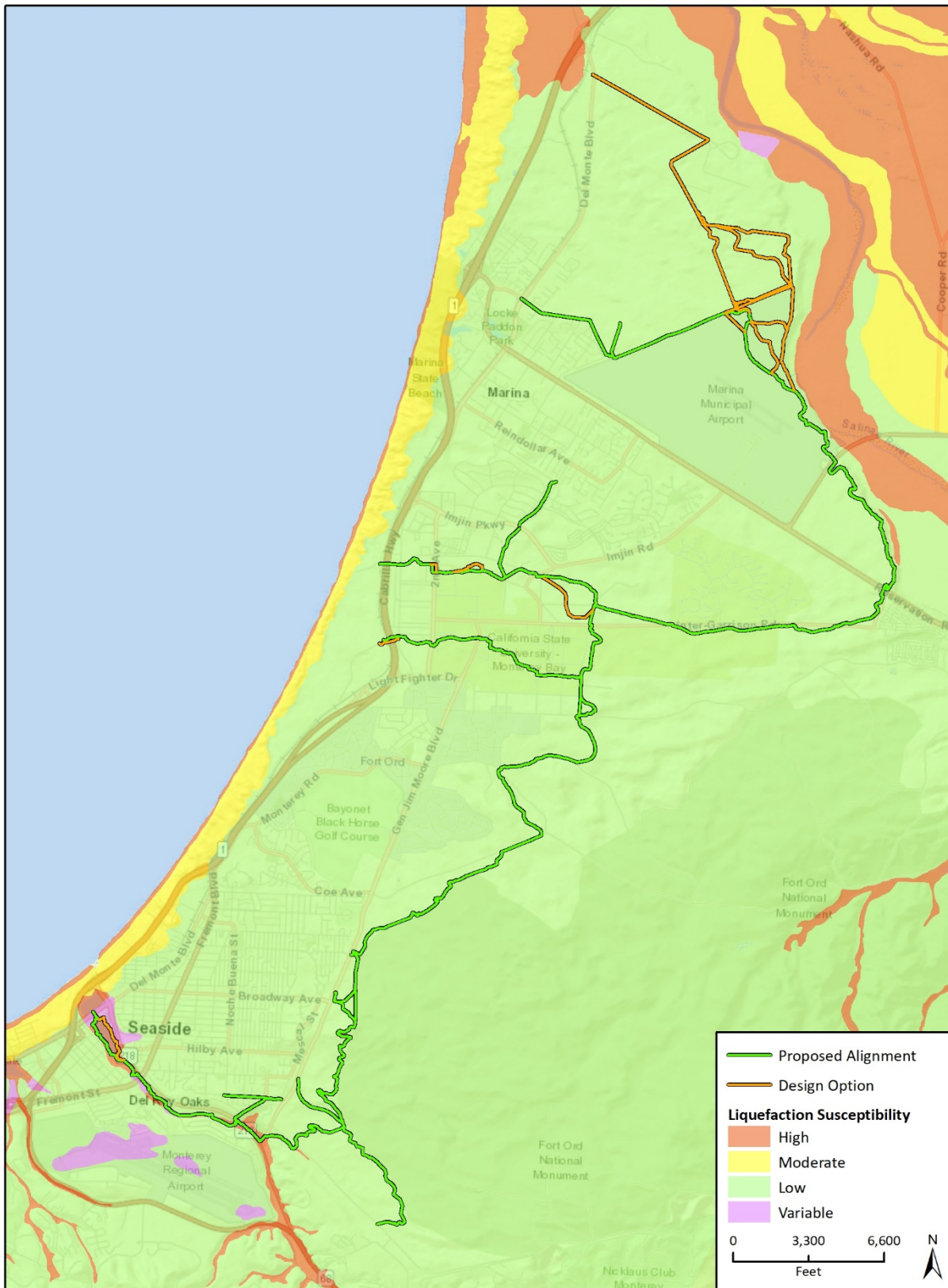
Figure 4.7-1 Regional Fault Map



Imagery provided by ESRI and its licensors © 2019. Additional data provided by Alta Planning + Design, 2019.
Fault data provided by United States Geological Survey, 2019.

Fig. 4.7-1 Regional Faults

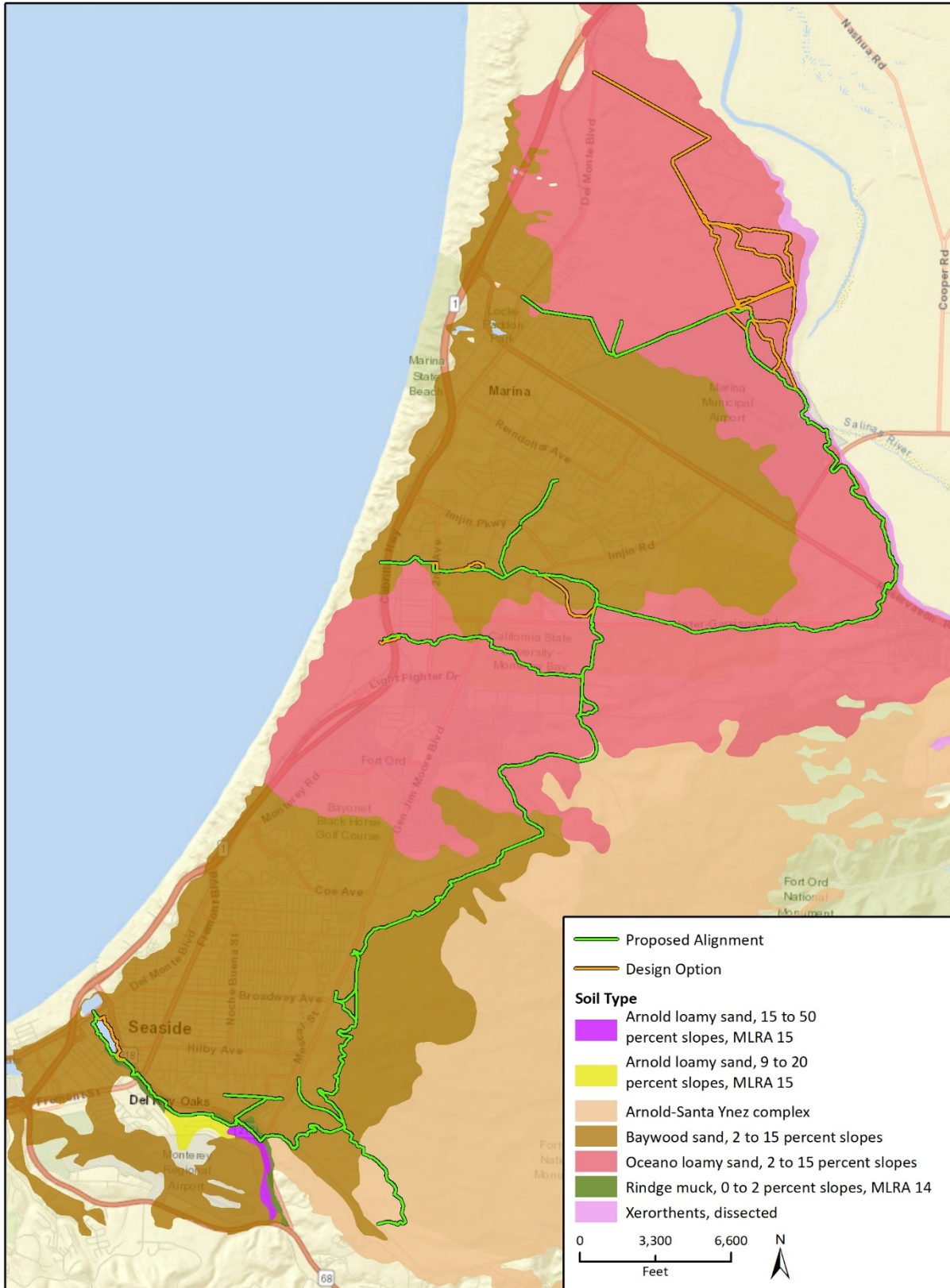
Figure 4.7-2 Liquefaction Susceptibility



Imagery provided by ESRI and its licensors © 2019. Additional data provided by Alta Planning + Design, 2019.
 Liquefaction data provided by County of Monterey, 2019.

Fig. 4.7-3 Liquefaction Susceptibility

Figure 4.7-3 Project Corridor Area Soils Map



Imagery provided by ESRI and its licensors © 2019. Additional data provided by Alta Planning + Design, 2019.
 Soils data provided by Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database, 2019.

Fig. 4.7-3 Soils

Expansive Soils

Expansive soils can change dramatically in volume depending on moisture content. When wet, these soils can expand; conversely, when dry, they can contract or shrink. Sources of moisture that can trigger this shrink-swell phenomenon include seasonal rainfall, landscape irrigation, utility leakage, and/or perched groundwater. Expansive soil can develop wide cracks in the dry season, and changes in soil volume have the potential to damage concrete slabs, foundations, and pavement. Special building/structure design or soil treatment are often needed in areas with expansive soils. Expansive soils are typically very fine-grained with a high to very high percentage of clay. Clay minerals present in expansive soils typically include montmorillonite, smectite, and/or bentonite. Both Baywood and Ocean Series are composed of sand and have low water storage potential (USDA NRCS 2018). Similar, Arnold loamy sand, Arnold-Santa Ynez complex, Rindge muck are mainly comprised of sand. The Xerorthents soil can contain up to 18 percent clay but are well drained and consist mostly of sand (USDA NRCS 2001b). In addition, the Monterey County Multi-Jurisdictional Hazard Mitigation Plan does not identify substantial risks from expansive soils and states that no historic events related to this hazard have occurred in the County (Monterey County 2015). Therefore, soil series in the project corridor have low potential for expansion and low shrink-swell potential. Areas characterized by low shrink-swell potential do not pose a geologic hazard in the project corridor.

d. Slope Stability

Landslides and surficial slope failures are most likely to occur in areas of greater than 25 percent slope (hillside areas) and along steep bluffs. Landslides also occur due to specific events, such as loss of vegetation after fires or earthquakes adding loads to barely stable slopes. Monterey County is vulnerable to slope instability in the Santa Lucia Mountain Range and fault zones, especially after prolonged rainfall. In general, mountainous areas and steeply sloped streambanks are most susceptible to landslides or mudflows when soils are wet, particularly adjacent to areas of unstabilized cut or fill. High susceptibility to earthquake-induced landslides does not generally occur in the urbanized areas of Monterey County, including on the Monterey Peninsula and in the project vicinity (Monterey County 2008).

e. Subsidence

Subsidence is a process that occurs in response to the voids created by extracting solids or liquids from beneath the Earth's surface. Subsidence is controlled by many factors including mining methods, depth of extraction, thickness of deposit and topography. Impacts from subsidence can be serious if damage occurs to structures or effects ground-water conditions (Lee and Abel 1983). Monterey County includes areas with oil mining and groundwater extraction that can be at risk from subsidence. However, there is little evidence of widespread land subsidence from drainage or organic soils, underground mining, or hydrocompaction in Monterey County.

f. Tsunamis and Seiches

The project corridor lies as close as approximately 1,500 feet inland from the coastline. According to the State of California Tsunami Inundation Map for Emergency Planning, Marina Quadrangle, the project corridor is not located within a tsunami inundation zone (DOC 2009). There are no large bodies of water within close proximity to the project corridor that would result in a seiche. Therefore, the project corridor has a low potential for tsunamis and seiches.

g. Paleontological Resources

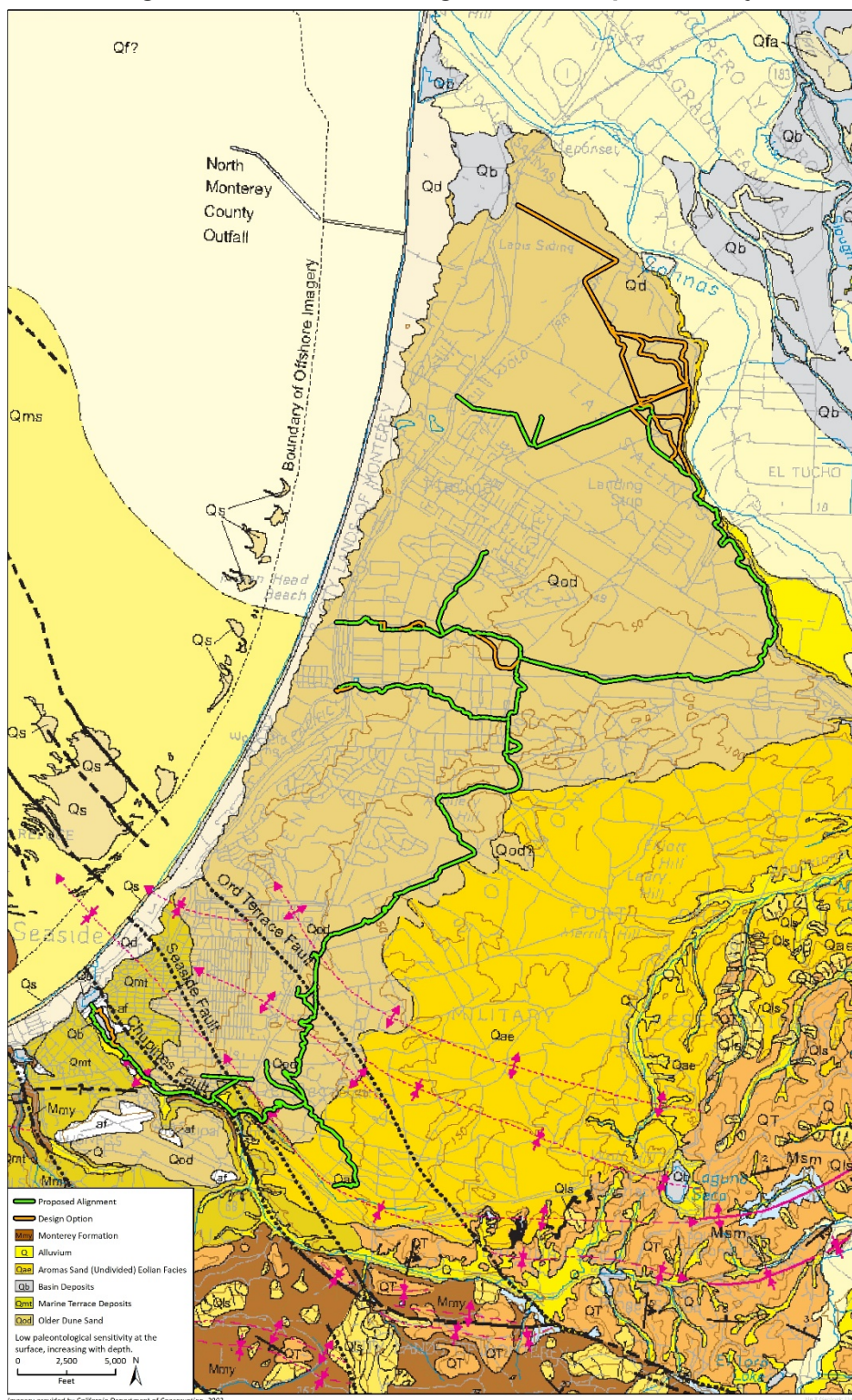
Paleontological resources (fossils) are the remains and/or traces of prehistoric life. Fossils are typically preserved in layered sedimentary rocks and the distribution of fossils is a result of the sedimentary history of the geologic units within which they occur. Fossils occur in a non-continuous and often unpredictable distribution within some sedimentary units, and the potential for fossils to occur within sedimentary units depends on several factors. Although it is not possible to determine whether a fossil will occur in any specific location, it is possible to evaluate the potential for geologic units to contain scientifically significant paleontological resources, and therefore evaluate the potential for impacts to those resources and provide mitigation for paleontological resources if they do occur during construction.

The project corridor is located in the Coast Ranges geomorphic province, one of 11 major provinces in the state (California Geological Survey [CGS] 2002). The Coast Ranges are bounded to the east by California's Central Valley, to the northeast by the Klamath Mountains, to the south by the Transverse Ranges, and to the west by the Pacific Ocean. The Province is divided into two sub-provinces—the ranges south of San Francisco Bay to Santa Barbara County and the ranges north of the bay. The northern ranges are located east of the San Andreas Fault zone and the southern ranges are mostly to the west (Norris and Webb 1990). The project corridor is situated within the Monterey Bay region of the southern Coast Ranges, which are lower in elevation with less rainfall and vegetation than the northern Coast Ranges.

The project corridor includes four (4) geologic units mapped at ground surface by Wagner et al. (2002): older Quaternary (Pleistocene) dune sand (Qod), the Aromas Sand (Qae), and younger Quaternary (Holocene) alluvium and basin deposits (Q, Qb) (**Figure 4.7-3**). Older Quaternary dune sand deposits (Qod) and Aromas Sands (Qae) underlie the majority of the surficial geology of the project corridor. These sediments date to the late Holocene or early Pleistocene, and consist of weakly-consolidated, well-sorted, wind-blown sand that has been stabilized through erosional action and soil formation (Dupre and Tinsley 1980). Because of the age of these aeolian sediments, it is possible they can preserve fossil resources, particularly at depth. Quaternary surficial deposits (Q, Qb) of Holocene age are exposed along drainages between terrace platforms along the southwestern portion of the project corridor. The Quaternary surficial deposits are composed of unconsolidated, poorly sorted clay, silt, sand, and gravel deposited in stream channels, flood basins, slopes, and coastal dunes (Clark et al. 1997). No previously recorded fossils have been documented in Quaternary surficial deposits in the vicinity of the project corridor. Holocene-age alluvial deposits, particularly those younger than 5,000 years old, are generally too young to contain fossilized material, but they may overlie sensitive older deposits (i.e., Pleistocene marine terrace deposits and the Miocene Monterey Formation) at an unknown depth. Refer to **Figure 4.7-4** for the geologic units and paleontological sensitivity in the project corridor.

Although not mapped within the project corridor, it is important to note the adjacent bluff exposures of the Miocene Monterey Formation (Mmy) and Pleistocene marine terrace deposits (Qmt) mapped extensively near the southwestern portion of the project corridor (Clark et al. 1997). Pleistocene marine terrace deposits consist of marine sediments and terrestrial alluvium that accumulated on a series of wave-cut platforms formed during late Pleistocene (Clark 1981). Pleistocene terrace deposits have a record of vertebrate fossil preservation in coastal California and have yielded scientifically significant specimens from multiple localities. In central coastal California, Pleistocene marine terrace deposits have yielded vertebrate fossil specimens of camel, horse, ground sloth, whale, and dolphin, shark, and fish (Jefferson et al. 1991; Woodring et al. 1946). The Monterey Formation, also mapped adjacent to the southwestern project corridor, is well exposed

Figure 4.7-4 Geologic Units and Paleontological Sensitivity in the Project Corridor¹



¹ Fault names are provided by Department of Conservation and differ from names in the in the rest of Section 4.7 that are provided by the US Geological Survey.

along coastal California from San Francisco south to Los Angeles. These Miocene deposits are typically recognized by its pale buff to white fine-grained deposits, dark brown to black siliceous laminations, and common fossils (Berndmeyer et al. 2012). Numerous vertebrate localities have been documented from the Monterey Formation, which yielded specimens of large sea turtles, whale, dolphins, sea lions, shark bones and teeth, sea cows, desmostylians, fish, birds, and many other fauna (Bramlette 1946; Harden 1998; Koch et al. 2004)

A search of the paleontological locality records at the Natural History Museum of Los Angeles County resulted in no previously recorded fossil localities within the project boundary; however, at least two vertebrate localities (LACM 4069 and 384) were identified within older Quaternary aeolian deposits and late Miocene Monterey Formation in the general vicinity of the project. The closest vertebrate locality, LACM 4069, produced fossil specimens of horse (*Equus*), pronghorn antelope (Antilocapridae), and deer (Cervidae) north-northeast of the project in the San Benito River Valley. LACM (CIT) 384, located south-southwest of the project in the hills on the northern side of Carmel Valley, yielded fossil specimens of snake mackerel (*Thyrsoctes kriegeri*) recovered from deposits of the Monterey Formation (McLeod 2019).

A supplemental review of the museum records maintained in the University of California Museum of Paleontology (UCMP) online collections database did not indicate any vertebrate fossil localities in the immediate vicinity of the project corridor. The closest UCMP vertebrate locality on record is V6279, which yielded pinniped (seal) limb bone fragments from the Miocene Monterey Formation approximately four miles south-southwest of the project corridor (UCMP 2019).

4.7.2 Regulatory Setting

a. Federal

Clean Water Act

Stormwater-related erosion is one major source of soil-related impacts. Stormwater discharges from construction activities (such as clearing, grading, excavating, and stockpiling) that disturb one or more acres, or smaller sites that are part of a larger common plan of development or sale, are regulated under the Clean Water Act through the National Pollutant Discharge Elimination System (NPDES) stormwater program. Prior to discharging stormwater, construction operators must obtain coverage under an NPDES permit. In California, the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit) is promulgated by the State Water Resources Control Board (SWRCB) and administered through the local Regional Water Quality Control Board, which for this area is the Central Coast Regional Water Quality Control Board (CCRWQCB).

The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP should contain a site map(s) that show the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography before and after construction, and drainage patterns across a project site. The SWPPP must list Best Management Practices (BMP) the discharger will use to protect stormwater runoff and indicate the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program, a chemical monitoring program for "non-visible" pollutants to be implemented if BMPs fail, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Section A of the Construction General Permit describes the elements that must be contained in a SWPPP.

b. State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (PRC 2621 et seq.) is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The Alquist-Priolo Act prohibits the location of most types of structures intended for human occupancy across the 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.” A fault is considered sufficiently active if one or more of its segments or strands shows evidence of surface displacement during Holocene time (defined as within the last 11,000 years). A fault is considered well-defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria and judgment (CDMG 1997).

Seismic Hazards Mapping Act of 1990

Like the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (PRC 2690–2699.6) is intended to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground-shaking, liquefaction and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act: the State is charged with identifying and mapping areas at risk of strong ground-shaking, liquefaction, landslides and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones.

California Building Standards Code

The California Building Standards Code (CBSC) is based on the Uniform Building Code, which is used widely throughout United States and has been modified for California conditions with numerous, more detailed or more stringent regulations. The CBSC provides standards for various aspects of construction, including, but not limited to: excavation, grading and earthwork construction; fills and embankments; expansive soils; foundation investigations; and liquefaction potential and soil strength loss. In accordance with California law, proponents of specific projects are required to comply with all provisions of the CBSC for certain aspects of design and construction.

Fort Ord Reuse Authority Base Reuse Plan

The Fort Ord Reuse Authority (FORA) adopted the *Fort Ord Base Reuse Plan* (BRP) in June 1997, and a revised version of the BRP was published in digital format in September 2001 and March 2018, incorporating various corrections and errata. Seismic and Geologic Hazards Policy A-1 requires the development standards and guidelines and requires their use in new construction. Seismic and Geologic Hazards Policy A-2 requires the use the development review process to ensure that potential seismic or geologic hazards are evaluated and mitigated prior to construction of new projects. Seismic and Geologic Hazards Policy A-3 requires the designation of areas with severe seismic hazard risk as open space or similar use to ensure structural stability of habitual buildings and ensure public safety. Seismic and Geologic Hazards Policy C-1 calls for cooperation with other appropriate agencies to create a public education program for earthquake preparedness.

c. Regional

Multi-Jurisdictional Hazard Mitigation Plan

The Monterey County Multi-Jurisdictional Hazard Mitigation Plan incorporates hazard mitigation principles and practices into the routine government activities and functions of the County and twelve municipalities participating in the Plan. The Plan recommends specific actions that are designed to protect people and community assets from losses to those hazards that pose the greatest risk. Chapter 7, Mitigation Strategy, provides a blueprint for reducing the potential losses identified in the vulnerability analysis. Such measures include local plans and regulations, structure and infrastructure projects, natural systems protection, education and awareness programs, and other activities (Monterey County 2015).

d. Local

Monterey County

Monterey County General Plan

The Monterey County General Plan (2010) Conservation and Open Space Element and Safety Element contain goals and policies related to geologic hazards, geotechnical requirements, and paleontological resources. Goal OS-3 of the Conservation and Open Space Element is to prevent soil erosion and enhance water quality. Policy OS-3.1 requires best management practices to prevent erosion. Goal OS-7 of the Conservation and Open Space Element is to encourage the conservation and identification of the County's paleontological resources. Policy OS-7.1 requires developers to complete Phase I (reconnaissance level) paleontological reviews in any formation known to yield significant fossil specimens. If significant fossil deposits are found during grading activities, data recovery shall be required to obtain a sample of materials from such deposits. Goal S-1 of the Seismic Element is to minimize the potential for loss of life and property resulting from geologic and seismic hazards. Policy S-1.1 requires land uses to be sited and measures applied to reduce the potential for loss of life, injury, property damage, and economic and social dislocations resulting from ground shaking, liquefaction, landslides, and other geologic hazards in the high and moderate hazard susceptibility areas. Policy S-1.3 requires site-specific geologic studies for new development to verify the presence or absence and extent of the hazard on the property and identify Mitigation Measures for any development proposed. Policy S-1.5 states that structures in areas that are at high risk from fault rupture, landslides, or coastal erosion shall not be permitted unless measures recommended by a registered engineering geologist are implemented to reduce the hazard to an acceptable level. Policy S-1.6 states that new development shall not be permitted in areas of known geologic or seismic hazards unless measures recommended by a California certified engineering geologist or geotechnical engineer are implemented to reduce the hazard to an acceptable level. Policy S-1.7 requires site specific reports addressing geologic hazards and geotechnical conditions for the planning phase in accordance with the California Building Code.

Monterey County Code, Chapter 16.08, Grading

Chapter 16.08 of the Monterey County Code regulates grading activities. The purpose of these regulations is to safeguard health, safety, and public welfare, to minimize erosion, protect fish and wildlife, and to otherwise protect the natural environment. A grading permit is required for all activities that would exceed 100 cubic yards of grading. Where grading operations obstruct and/or otherwise impair the flow or runoff of a drainage course, appropriate drainage facilities are required

to be implemented to convey flows past the point of obstruction (§16.08.330). Chapter 16.08 also contains measures to protect water quality from grading related activities and associated erosion. These requirements are codified in §16.08.340 of the Monterey County Code, which requires that all areas disturbed in connection with grading related activities shall be consistently maintained to control erosion. The project would be required to comply with these requirements.

Monterey County Code, Chapter 16.12, Erosion Control

Monterey County Code Chapter 16.12 requires that development activities control runoff to prevent erosion. The purpose of these regulations is to eliminate and prevent conditions of accelerated erosion that have led to, or could lead to, degradation of water quality, loss of fish habitat, damage to property, loss of topsoil or vegetation cover, disruption of water supply, increased danger from flooding. An erosion control plan is required to be submitted to the County of Monterey prior to any land disturbing activities (§16.12.060). This plan is required to indicate methods to control erosion. Runoff control must be implemented to control runoff from a 10-year storm event (§16.12.070). All runoff must be detained or dispersed so that the runoff rate does not exceed the pre-development level. Any concentrated runoff which cannot be effectively detained or dispersed without causing erosion is to be carried in non-erodible channels or conduits to the nearest drainage course designated for such purpose or to on-site percolation devices with appropriate energy dissipaters to prevent erosion at the point of discharge. Runoff from disturbed areas must be detained or filtered by berms, vegetated filter strips, catch basins, or other means as necessary to prevent the escape of sediment from the disturbed area. The project would be required to comply with these requirements.

City of Marina

City of Marina General Plan

The Community Land Use Element of the Marina General Plan prohibits development on land where a significant potential threat to life or property from very high seismic shaking or seismically induced ground failure, flooding, or landslides (City of Marina 2010). The policies of that element incorporate provisions and policies of the City's certified Local Coastal Program (1982), which is currently being updated (City of Marina 2019). The Public Health and Safety section of the General Plan further indicates that "new development shall be permitted in areas of high seismic risk only when adequate engineering and design measures can be implemented in accordance with a geotechnical investigation and report" (City of Marina 2010). Finally, the General Plan mandates specific safeguards to address design and engineering to mitigate geologic and seismic hazards in specific locations.

City of Marina Municipal Code

Chapter 15 of the Marina Municipal Code adopts the California Building Code by reference to cover requires for seismic safety. As part of the project approval process, the project proponent must prepare a tentative project map that includes, among other items, a soils report prepared by a registered geotechnical engineer that includes test borings upon which the report is based and recommended corrective actions, where necessary. Finally, erosion control and improvements to be constructed are also part of the construction permit application process.

City of Seaside

2004 Seaside General Plan

The current adopted City of Seaside General Plan contains goals and policies for the mitigation of natural hazards associated with local geology and soil type, which are discussed in the Safety Element. Under the Safety Element, geological hazards associated with the regional and local setting of the City of Seaside include soils limitations, erosion, seismic activity, and tsunamis and seiches. Goal S-1 is set forth by the City to reduce the risks to people and property from hazards related to seismic activity, flooding, geologic conditions, and wildfires. The City of Seaside also addresses paleontological resources within the Conservation and Open Space Element. In areas of known paleontological resources, the Community Development and Planning departments would be responsible to address the preservation of these resources when feasible.

2040 City of Seaside General Plan (Draft)

The draft *2040 City of Seaside General Plan*, currently available for public review, contains goals and policies, primarily in the Safety Element, to protect the community from geologic and seismic hazards to ensure community safety. The intent of Goal S-3 is to lessen the impacts of earthquakes, geologic threats, tsunamis and other natural disasters on City residents and structures. To achieve this, Seaside will regularly update and assess risks and hazards, examine mitigation strategies, and raise public awareness around disasters. Policies include: identify earthquake risks and mitigation, update seismic and geologic hazard maps, update building codes and development reviews, seismic upgrades, and public awareness (City of Seaside 2019).

Seaside Municipal Code

Seaside Municipal Code Section 15.04.020 adopts by reference the 2016 California Building Code. In addition, the Seaside Municipal Code Section 15.32.180 contains design standards for erosion and sediment control related to slopes, runoff control, building site runoff, vegetation removal, vegetation disposal, topsoil, temporary vegetation, winter operations, dust, erosion control coordination with project installation, livestock, and maintenance. Section 15.32.090 requires either a soil engineering report or engineering geology report for excavation, grading, filling, clearing, and/or erosion control work permits which are required to include recommendations for seismic and erosion control. Section 15.32.070 requires permit applications to include vegetation erosion control and revegetation measures for all surfaces exposed or expected to be exposed during grading activities as part of overall erosion and sediment control plans (City of Seaside 2017).

City of Monterey

City of Monterey General Plan

The Safety Element of the City of Monterey General Plan (2016) identifies potential hazards in the City and includes goals and policies to reduce those hazards. Safety Element goals evaluate seismic safety in the City and policies require geologic investigations for projects in a moderate to high seismic hazard zone. In addition to seismic safety the Safety Element includes goals and policies related to Geologic Hazards, such as Policy b.2 to minimize grading in hillside areas and Policy b.3 to minimize cutting and removal of vegetation during grading operations.

City of Monterey Municipal Code

Chapter 31.5 of the City of Monterey Municipal Code addresses storm water management and requires implementation of site specific BMPs during project construction for erosion and sediment control, as well as soil stabilization. In addition, per Section 9-77 of the City of Monterey Municipal Code a permit is required for excavation or ground disturbance of at 10 cubic feet or more of soil. Permit requirements must include measures to ensure that grading or excavation would not result in a risk to public health or safety, such as erosion.

City of Del Rey Oaks

City of Del Rey Oaks General Plan

The City of Del Rey Oaks General Plan Safety Element identifies potential hazards and provides policies, programs, and standards to protect people and property. In addition, the General Plan includes a Seismic Safety Element, which was last updated in 1988 to include goals and policies relative to seismic safety (City of Del Rey Oaks 1997).

City of Del Rey Oaks Municipal Code

Chapter 15.32 of the Del Rey Oaks Municipal Code provides grading requirements for grading and excavation in the city. A permit is required for most grading in the city and requires designation of maximum and minimum slopes, safe and adequate drainage, and specific excavation or fill. In addition, Sections 15.32.190 through 15.32.230 provide guidance for excavation and fills and prohibits accelerated erosion through implementation or erosion reduction measures.

4.7.3 Methodology and Significance Thresholds

Methodology

This section describes the potential environmental impacts of the proposed FORTAG project and all FORTAG design options relevant to geology and soils. The impact analysis is based on an assessment of baseline conditions for the project corridor, including topography, geologic formations, seismicity, soils, and soil conditions, as described in **Section 4.7.1, Existing Conditions**. This analysis identifies potential impacts based on the predicted interaction between the affected environment and construction and operation of FORTAG, and recommends mitigation measures, when necessary, to avoid or minimize impacts.

Significance Thresholds

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

1. 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
 - ii. Strong seismic ground shaking

- iii. Seismic-related ground failure, including liquefaction
 - iv. Landslides
2. Result in substantial soil erosion or the loss of topsoil
 3. 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. 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. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water
 6. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

The Appendix G Initial Study checklist also includes questions that are not applicable to the proposed FORTAG project, specifically the use of septic tanks or alternative wastewater disposal systems. Therefore, checklist item 5 is analyzed in **Section 4.18, *Effects Found to be Less than Significant***.

Paleontological Resources Sensitivity

Paleontological sensitivity refers to the potential for a geologic unit to produce scientifically significant fossils. Direct impacts to paleontological resources occur when earthwork activities, such as grading or trenching, cut into the geologic deposits within which fossils are buried and physically destroy the fossils. Since fossils are the remains of prehistoric animal and plant life, they are considered to be nonrenewable. Such impacts have the potential to be significant and, under the *CEQA Guidelines*, may require mitigation. Sensitivity is determined by rock type, past history of the geologic unit in producing significant fossils, and fossil localities recorded from that unit. Paleontological sensitivity is derived from the known fossil data collected from the entire geologic unit, not just from a specific survey.

The discovery of a vertebrate fossil locality is of greater significance than that of an invertebrate fossil locality, especially if it contains a microvertebrate assemblage. The recognition of new vertebrate fossil locations could provide important information on the geographical range of the taxa, their radiometric age, evolutionary characteristics, depositional environment, and other important scientific research questions. Vertebrate fossils are almost always significant because they occur more rarely than invertebrates or plants. Thus, geological units having the potential to contain vertebrate fossils are considered the most sensitive.

The Society for Vertebrate Paleontology (SVP) outlines in its Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (SVP 2010) guidelines for categorizing paleontological sensitivity of geologic units within a project area. The SVP (2010) describes sedimentary rock units as having a high, low, undetermined, or no potential for containing significant nonrenewable paleontological resources. This criterion is based on rock units within which vertebrates or significant invertebrate fossils have been determined by previous studies to be present or likely to be present. Significant paleontological resources are fossils or assemblages of fossils, which are unique, unusual, rare, uncommon, diagnostically or stratigraphically, taxonomically, or regionally. The paleontological sensitivity of the project corridor has been evaluated according to the following SVP (2010) categories, which are presented below.

HIGH POTENTIAL (SENSITIVITY)

Rock units from which significant vertebrate or significant invertebrate fossils or significant suites of plant fossils have been recovered are considered to have a high potential for containing significant non-renewable fossiliferous resources. These units include but are not limited to, sedimentary formations and some volcanic formations which contain significant nonrenewable paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils. Sensitivity comprises both (a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, or botanical and (b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, ecologic, or stratigraphic data. Areas which contain potentially datable organic remains older than recent, including deposits associated with nests or middens, and areas that may contain new vertebrate deposits, traces, or trackways are also classified as significant. Full-time monitoring is typically recommended during any project-related ground disturbance in geologic units with high sensitivity.

LOW POTENTIAL (SENSITIVITY)

Sedimentary rock units that are potentially fossiliferous, but have not yielded fossils in the past or contain common and/or widespread invertebrate fossils of well documented and understood taphonomic (processes affecting an organism following death, burial, and removal from the ground), phylogenetic species (evolutionary relationships among organisms), and habitat ecology. Reports in the paleontological literature or field surveys by a qualified vertebrate paleontologist may allow determination that some areas or units have low potentials for yielding significant fossils prior to the start of construction. Generally, these units will be poorly represented by specimens in institutional collections and will not require protection or salvage operations.

UNDETERMINED POTENTIAL (SENSITIVITY)

Specific areas underlain by sedimentary rock units for which little information is available are considered to have undetermined fossiliferous potentials. Field surveys by a qualified vertebrate paleontologist to specifically determine the potentials of the rock units are required before programs of impact mitigation for such areas may be developed.

NO POTENTIAL

Rock units of metamorphic or igneous origin are commonly classified as having no potential for containing significant paleontological resources. For geologic units with no sensitivity, a paleontological monitor is not required.

4.7.4 Project Impact Analysis

- Threshold 1a:** Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?
- Threshold 1b:** Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Impact GEO-1 THE PROJECT MAY EXACERBATE THE EXPOSURE OF PEOPLE TO SEISMIC HAZARDS BY CONSTRUCTING OVERCROSSINGS AND UNDERCROSSINGS THAT COULD INCREASE RISKS FROM SEISMIC GROUND SHAKING. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

The project corridor is located in a seismically active region of California and is subject to potential ground shaking associated with seismic activities. However, the project corridor not located within an Alquist-Priolo Earthquake Fault Zone (DOC 2019). There are two faults that cross the proposed alignment: the Reliz Fault, which crosses the Northern Loop segment; and Chupines Fault, which crosses the National Monument Loop segment and Canyon Del Rey/SR 218 segment. While these faults may result in fault-related ground rupture, the proposed FORTAG project does not include construction of habitable structures or restroom buildings that would result in long-term exposure of people or structures to the risk of loss, injury, or death involving strong seismic ground-shaking.

Although FORTAG would result in an increase in the number of Trail users in the project corridor, those visitors would be transient (with short-term exposure), would be located generally in open spaces along the proposed alignment. Although FORTAG may expose Trail users to overhead hazards, such as power lines along Plumas Avenue in the Canyon Del Rey/SR 218 segment, these users would be transient, and the project would not cause injury or death following strong ground shaking. Trail users would not exacerbate existing ground shaking hazards, in that they would not increase the likelihood or strength of future earthquakes.

The proposed alignment would cross public roadways with at-grade crossings and grade-separated crossings. At-grade crossings would not increase the risks from seismic ground shaking because they would not involve construction of new structures. New grade-separated crossings such as overcrossings or undercrossings could expose Trail users to risks from seismic ground shaking because strong ground shaking motion could damage elevated structures. Proposed overcrossings and undercrossings would require structural integrity in the event of strong groundshaking. For example, the Northern Loop segment would include a bicycle/pedestrian bridge over Blanco Road and the CSUMB Loop North segment would include a new bicycle/pedestrian bridge over Imjin Road between Imjin Parkway and 8th Street. In addition to proposed overcrossings, there are design options for portions of the Trail that include overcrossings and/or undercrossings. For example, there are two design options under consideration for the Trail on the CSUMB Loop North segment to cross 2nd Avenue: a roundabout or an undercrossing. The roundabout would be an at-grade crossing and would not expose recreational users to risks from seismic groundshaking. However, the undercrossing, if chosen as the design option, could expose recreational users to risks from seismic groundshaking.

The Trail would also utilize some existing overcrossings and undercrossings. For example, the CSUMB Loop North segment would cross SR 1 using an existing overcrossing at 8th Street in the City

Marina, west of the CSUMB campus. Improvements to existing overcrossings and undercrossings would be minor, consisting mainly of restriping to accommodate bicycle and pedestrian users. Therefore, FORTAG would not alter the seismic integrity of existing structures.

Along the majority of the proposed alignment, Trail users would not be exposed to potential substantial adverse effects of seismic ground shaking. However, proposed undercrossings and overcrossings could expose recreational users to risks from seismic ground shaking. **Mitigation Measure GEO-1** requires design-level geotechnical investigation and implementation of geotechnical recommendations for proposed structures that have the potential to be damaged from strong seismic groundshaking. This mitigation measure would ensure the structural integrity of grade-separated trail crossings and reduce risks from seismic ground shaking.

Mitigation Measures

GEO-1 Conduct Design-level Geotechnical Investigation and Implement Recommendations

Prior to construction of any new undercrossing or overcrossing, and for portions of the Trail near a steep slope, a registered civil or geotechnical engineer shall prepare for review by the implementing entity a Design-level Geotechnical Investigation. The Design-level Geotechnical Investigation shall include the following:

- Soil test borings necessary to fully characterize geologic and soil conditions for grade-separated crossings, including but not limited to soil sampling at critical structure locations
- Specific and detailed recommendations for structural setbacks, foundation types and the related criteria to be used in their design, allowable settlement, seismic design considerations including seismically-induced settlement, retaining structures as needed, drainage improvements, and earthwork preparation
- Quantitative analysis of potentially liquefiable sediments in the trail alignment, including estimates of potential settlement, to assess their potential impact on foundations, slope stability, and lateral spreading potential
- Detailed geotechnical analysis and design standards for reinforced soil slopes, retaining walls, and other project facilities on or near loose to very loose granular soils, including an assessment of the potential for static and seismically-induced settlement, soil preparation and compaction requirements, and foundation requirements
- Assessment of compaction needs for to reduce settlement potential for site walls, and pavement sections to reduce settlement potential
- Geotechnical design criteria for engineered embankments or retaining walls, including lateral earth pressure values, foundation recommendations, bearing capacity, keyway dimensions and construction recommendations, appropriate slope gradients, slope setbacks, drainage requirements, and specifications and compaction requirements for engineered fill and geosynthetic reinforcement
- Detailed design recommendations for stabilization, including types of materials to be used, foundation requirements and structural connections to competent native materials, and measures to address undercutting of the bluff by wave action
- All geotechnical design recommendations as required for site preparation, grading and compaction, structure foundation design, retaining walls, slope setbacks, surface drainage, concrete slabs-on-grade, and design of structural pavement sections

All geotechnical design recommendations from the Design-level Geotechnical Investigation shall be implemented.

Significance After Mitigation

Impacts would be less than significant with mitigation.

<p>Threshold 1c: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?</p>
<p>Threshold 1d: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?</p>
<p>Threshold 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?</p>

Impact GEO-2 THE PROJECT MAY EXACERBATE PUBLIC EXPOSURE TO LIQUEFACTION OR LANDSLIDE HAZARDS WHICH MAY CAUSE SUBSTANTIAL ADVERSE EFFECTS. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

Liquefaction

The proposed FORTAG project would include construction of a paved trail and associated facilities, including roadway crossings, amenity features (benches and shade structures), and lighting in some areas. As shown in **Figure 4.7-2**, most of the project corridor is in an area of low liquefaction potential. However, the southern portion of the proposed alignment, specifically the Canyon Del Rey/SR 218 segment, has high liquefaction susceptibility. The Canyon Del Rey/SR 218 segment would include an undercrossing beneath General Jim Moore Boulevard and an undercrossing beneath SR 218 approximately 140 feet southeast of Carlton Drive. The proposed undercrossing at General Jim Moore Boulevard is in an area of low liquefaction potential. However, the proposed SR 218 undercrossing is located in an area of high liquefaction potential and may result in risk from unstable soil. As a design option, the SR 218 undercrossing may be an at-grade crossing or new signal and crosswalk at SR 218 and Carlton Drive. The design option for at-grade crossing would not result in any new structures or result in risks from liquefaction.

Implementation of **Mitigation Measure GEO-1** requires design-level geotechnical investigation and implementation of geotechnical recommendations for proposed structures. This measure would ensure that the proposed SR 218 undercrossing would be designed to address liquefaction and reduce the potential impacts from unstable soil.

Landslides and Seismically Induced Slope Failures

The proposed FORTAG project would include construction of a paved trail and associated facilities. The proposed project would not include any buildings and therefore would not expose resident or the public to a long-term risk of injury or death from landslides or seismic related ground failure. The general topography along the project corridor is gently sloping and would not expose recreational users to risk from landslides. Sandy soils would be retained along the proposed alignment with construction of retaining walls, where applicable, further reducing potential for landslide impacts. However, some portions of the alignment, such as the eastern portion of the

Northern Loop segment and along Blanco Road, have steeper slopes and could put Trail users at risk from landslides. Design criteria in steep areas would reduce risk from landslides by ensuring that proposed infrastructure, such as overcrossings and undercrossings, would account for the steep slopes. For example, the proposed undercrossing at Reservation Road within the Northern Loop segment would have two undercrossings for Trail users to accommodate the two-way Trail traffic. The two undercrossings would be constructed at different elevations to accommodate the overall ground slope and prevent the potential for landslides. In addition, alignment grades would generally be gently sloped to accommodate ADA accessibility; the gentle slopes would also reduce potential for landslides.

Certain portions of the proposed alignment, such as the Canyon Del Rey/SR 218 segment at the intersection of General Jim Moore Boulevard and SR 218, would place recreational users near areas with steep slopes and increase susceptibility to landslides (Monterey County 2019). FORTAG would increase the number of recreational users in the project corridor, and those users could be exposed to an increased risk of injury or death from landslides. Improper construction of the trail near any steep slopes could adversely affect slope stability and result in an increased potential for landslides. Retaining walls would be implemented along the proposed alignment to retain slopes at certain locations. Approximately 2,050 feet of retaining walls would be required through the entire FORTAG system. However, recreational uses may still be exposed to risks from landslides and seismically include slope failures.

Mitigation Measure GEO-1 requires design-level geotechnical investigation and implementation of geotechnical recommendations that would reduce the risk for landslides and slope failure. This mitigation would require a design-level geotechnical investigation and incorporation of recommendations in the final project design to reduce the potential for the project to destabilize hillslopes or exacerbate existing slope instability.

Mitigation Measures

GEO-1 Conduct Design-level Geotechnical Investigation and Implement Recommendations

Mitigation Measure GEO-1 text is included under Impact GEO-1 above.

Significance After Mitigation

Impacts would be less than significant with mitigation.

Threshold 2: Would the project result in substantial soil erosion or the loss of topsoil?
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Impact GEO-3 THE PROJECT MAY RESULT IN SUBSTANTIAL SOIL EROSION OR THE LOSS OF TOPSOIL DURING CONSTRUCTION AND OPERATION. HOWEVER, STATE AND LOCAL REGULATIONS WOULD REQUIRE IMPLEMENTATION OF SEDIMENT AND EROSION CONTROL. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The proposed FORTAG project could result in soil erosion or the loss of topsoil during construction due to earth-moving activities such as excavation, grading, soil compaction and moving, soil stockpiling, slope modification, and installation of roadway undercrossing. Although the proposed alignment is generally flat, runoff during a large storm event from nearby slopes can occur as sheet flow across the proposed alignment. This runoff has the potential to result in substantial amounts of erosion, resulting in off-site sediment transport via stormwater.

Each phase of project construction for individual portions of the Trail would result in over 1.0 acre of ground disturbance.² Therefore, FORTAG would be subject to the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order No. 2012-0006-DWQ) adopted by the SWRCB. Compliance with the permit requires each qualifying development project to file a Notice of Intent with the SWRCB. Permit conditions require development of a SWPPP, which must describe the site, the facility, erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of construction sediment and erosion control measures, maintenance responsibilities, and non-stormwater management controls. Inspection of construction sites before and after storms is required as well, to identify stormwater discharge from the construction activity and to identify and implement erosion controls, where necessary.

In addition, compliance with local regulations, such as the City of Seaside Municipal Code Section 15.32.180, City of Monterey Municipal Code Chapter 31.5, and Monterey County Code chapter 16.12, that contain design standards, permitting, and grading regulations for runoff and erosion control would further reduce soil erosion and the loss of topsoil. Compliance with the NPDES-required SWPPP and local regulations would reduce the risk of soil erosion during construction. Impacts from erosion during project construction would be less than significant.

The majority of the proposed alignment would be on sandy soils that are susceptible to erosion. As such, erosion may occur during project operation. The Trail would range from eight to twelve-feet of paved pathway but would include two-foot wide unpaved shoulders on each side. In addition, for approximately 1.3 miles, a side path adjacent to the alignment would be constructed, including a four to eight-foot-wide compacted native soil path with two-foot unpaved shoulders on each side. Continued use of the side path or unauthorized use of the greenway has the potential to result in soil erosion and loss of topsoil. However, trail maintenance as part of FORTAG Master Agreement would include upkeep of the unpaved side trail, ensuring soil compaction to reduce erosion. Signage would direct recreational users away from the proposed greenway adjacent to the trail, maintaining natural habitat where there is the potential to increase erosion and soil loss. In addition, retaining walls would be placed along the alignment in certain areas to retain slopes, prevent soil loss, and guide recreational users to stay on the Trail. Impacts from operational erosion would be less than significant.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

² Segments identified in Table 2-1 in Section 2, *Project Description*, are for planning purposes and may not reflect actual construction phasing. However, for the purpose of this analysis, it is assumed that trail segments would not be implemented in sections smaller than 1.0 acre.

Threshold 4: Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Impact GEO-4 FORTAG WOULD NOT EXACERBATE THE EXISTING RISK TO LIFE OR PROPERTY RESULTING FROM EXPANSIVE SOILS BECAUSE THE PROPOSED ALIGNMENT WOULD NOT OVERLAY SOILS WITH A HIGH EXPANSION POTENTIAL. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The proposed project would not exacerbate the existing risk to life or property resulting from expansive soils, because the native and fill soils underlying the proposed alignment are generally non-expansive and the Trail would not require in the import of expansive soils. Expansive soils are associated with clay-rich sediment deposits on alluvial floodplains. As discussed in **Section 4.7.1, Existing Conditions**, the project corridor has a low potential for soil expansion because the soils that underlay the proposed alignment are not clay-rich sediments and have low shirk-swell potential. Furthermore, FORTAG would be required to comply with applicable local regulations for building standards for each segment, such as Chapter 15 of the Marina Municipal Code and Section 15.04.020 of the Seaside Municipal Code, that adopt the California Building Code. Due to the low potential to encounter expansive soils in the project corridor and with adherence to local requirements, FORTAG would not exacerbate existing risks to life or property. Construction and operation of the Trail would not exacerbate the existing risk of damage from expansive soils either in or outside of the project corridor.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 6: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Impact GEO-5 GROUND DISTURBING ACTIVITIES DURING PROJECT CONSTRUCTION MAY DIRECTLY OR INDIRECTLY DESTROY A UNIQUE PALEONTOLOGICAL RESOURCE OR SITE OR UNIQUE GEOLOGIC FEATURE. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

The following analysis is based on findings in the Paleontological Resources Study prepared for FORTAG in August 2019 (**Appendix F**). Based on a paleontological literature review and records search results, the paleontological sensitivity of the geologic units underlying the project were determined in accordance with criteria set forth by the SVP (2010). Holocene sedimentary deposits are generally too young to contain fossilized material and Holocene deposits mapped in the project corridor have a low paleontological sensitivity. Older Quaternary (Pleistocene) aeolian sediments (Qod, Qae) have the potential to contain buried intact paleontological resources at moderate depths because the unit has proven to yield significant vertebrate fossils near the project corridor (McLeod 2019; UCMP 2019). Therefore, these sediments have a low paleontological sensitivity at the surface, but paleontological sensitivity increases with depth. The Miocene Monterey Formation (Mmy) and Pleistocene marine terrace deposits (Qmt) have the potential to underlie the project corridor at depth and have a high paleontological sensitivity because of their potential to preserve scientifically significant fossils.

Because there is the potential to uncover paleontological resources in the project corridor, ground disturbing activities in previously undisturbed portions of the project corridor along all segments could potentially result in significant impacts to paleontological resources. Impacts would be significant if construction activities result in the destruction, damage, or loss of scientifically important paleontological resources and associated stratigraphic and paleontological data. As currently proposed, the majority of project ground disturbance would not exceed 12 inches below ground surface for excavations associated with the project corridor. Such minimal ground disturbance (i.e., shallow excavations) within intact (native) deposits would not likely cause significant impacts to paleontological resources. However, ground disturbing activities for the proposed overcrossings and undercrossings along the Northern Loop, Canyon Del Rey/SR 218, and CSUMB Loop North segments would require extensive excavations within intact Pleistocene deposits underlying the project corridor, which could potentially result in significant impacts to paleontological resources.

Mitigation Measure GEO-5 would address the potentially significant impacts relating to the potential discovery of paleontological resources during project implementation. These measures would only apply to project construction of the proposed overcrossings and undercrossings along the Northern Loop, Canyon Del Rey/SR 218, and CSUMB Loop North segments and would ensure that any significant fossils present on-site are preserved.

Mitigation Measures

GEO-5 Implement Paleontological Resources Mitigation

The following mitigation measures shall only be implemented during ground construction activities (i.e., grading, trenching, foundation work, and other excavations) where ground disturbance exceeds ten feet below ground surface within the project corridor, including development of proposed overcrossings and undercrossings in the Northern Loop, Canyon Del Rey/SR 218, and CSUMB Loop North segments.

- **Develop a Paleontological Resources Mitigation Plan.** Prior to the commencement of ground disturbing activities for overcrossings and undercrossings in the Northern Loop, Canyon Del Rey/SR 218, and CSUMB Loop North segments, a qualified professional paleontologist shall be retained to prepare and implement a Paleontological Resources Mitigation Plan (PRMP) for the project. A Qualified Paleontologist is an individual who meets the education and professional experience standards as set forth by the SVP (2010), which recommends the paleontologist shall have at least a Master's Degree or equivalent work experience in paleontology, shall have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques. The PRMP shall describe mitigation recommendations in detail, including paleontological monitoring procedures; communication protocols to be followed in the event that an unanticipated fossil discovery is made during project development; and preparation, curation, and reporting requirements.
- **Paleontological Worker Environmental Awareness Program (WEAP).** Prior to the start of construction for all segments, the Qualified Paleontologist or his or her designee, shall conduct training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff. The WEAP shall be fulfilled at the time of a preconstruction meeting. In the event a fossil is discovered by construction personnel anywhere in the project area, all work in the immediate vicinity of the find shall cease and a qualified paleontologist shall be contacted to evaluate the find before re-

starting work in the area. If it is determined that the fossil(s) is (are) scientifically significant, the qualified paleontologist shall complete the mitigation outlined below to mitigate impacts to significant fossil resources.

- **Paleontological Monitoring.** Initially, full-time monitoring shall be conducted during ground construction activities where ground disturbance exceeds ten feet below ground surface within deposits of Older Quaternary dune sand (Qod) and Aromas Sand (Qae). Monitoring shall be conducted by a qualified paleontological monitor, who is defined as an individual who meets the minimum qualifications per standards set forth by the SVP (2010), which includes a B.S. or B.A. degree in geology or paleontology with one year of monitoring experience and knowledge of collection and salvage of paleontological resources. The duration and timing of the monitoring shall be determined by the Qualified Paleontologist and the location and extent of proposed ground disturbance. If the Qualified Paleontologist determines that full-time monitoring is no longer warranted, based on the specific geologic conditions at the surface or at depth, the Qualified Paleontologist may recommend that monitoring be reduced to periodic spot-checking or cease entirely.
- **Fossil Discovery, Preparation, and Curation.** If a paleontological resource is discovered, the monitor shall have the authority to temporarily divert the construction equipment around the find until it is assessed for scientific significance and collected. Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammals) require more extensive excavation and longer salvage periods. In this case, the paleontologist should have the authority to temporarily direct, divert or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner.

Once salvaged, significant fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition and curated in a scientific institution with a permanent paleontological collection (such as the UCMP) along with all pertinent field notes, photos, data, and maps. The cost of curation is assessed by the repository and is the responsibility of the project owner.

- **Final Paleontological Mitigation Report.** At the conclusion of laboratory work and museum curation, a final report shall be prepared describing the results of the paleontological mitigation monitoring efforts associated with the project. The report shall include a summary of the field and laboratory methods, an overview of the project geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. The final report shall be submitted to the implementing entity. If the monitoring efforts produced fossils, then a copy of the report shall also be submitted to the designated museum repository.

Significance After Mitigation

Impacts would be less than significant with mitigation.

4.7.5 Cumulative Impact Analysis

The geographic scope for considering cumulative impacts to geology and soils is the project corridor and the immediately adjacent areas. The geographic scope would also include off-site lands where earth movements along the project corridor could affect adjacent property. This scope is appropriate because geologic materials and soils occur at specific locales and are generally affected by activities directly on or immediately adjacent to the soils, and not by activities occurring outside the area. In addition, any geologic impacts of the project would be site-specific.

Planned projects immediately adjacent to the project corridor include Marina Station adjacent to the Northern Marina segment; Cypress Knolls, Sea Haven, and The Dunes on Monterey Bay projects adjacent to the CSUMB Loop North segment; Seaside East and the Central Coast Veterans Cemetery adjacent to the National Monument Loop segment; FORA Business Park adjacent to the Ryan Ranch segment; and the East Garrison and Northeast-Southwest Arterial Connector Project adjacent to the Northern Loop segment. Geology and soils impacts in the project corridor and immediately adjacent areas may result from increased exposure to seismic hazards, increased erosion and/or loss of topsoil, the presence of unstable/expansive soils, alternative waste disposal or septic systems, and impacts to paleontological resources. Construction and implementation of FORTAG would not result in increased exposure to geologic impacts because the **Mitigation Measure GEO-1** would ensure that FORTAG structures would not expose Trail users, including users from adjacent project areas, to increased risks from geologic hazards. In addition, geologic impacts occur independently of one another, and are caused by site-specific and project-specific characteristics and conditions. Existing regulations, such as the California Building Code, specify mandatory actions that must occur during project development, which would minimize effects from construction and operation of projects related to geology, soils and seismicity as discussed above. **Mitigation Measure GEO-5** would address the potentially significant impacts relating to the potential discovery of paleontological resources during project implementation by providing for the recovery, identification, and curation of previously unrecovered fossils.

Cumulative buildout of the underlying jurisdictions' general plans (i.e. cities of Del Rey Oaks, Marina, Monterey, Seaside, and Monterey County) could expose new residents and structures to seismic and other geologic hazards in the county. However, these seismic and soil issues are specific to each project and, for purposes of this cumulative analysis, the geographic context focuses on the project corridor and immediately adjacent lands. Because of the site-specific nature of potential seismic and soil issues, any future development along the corridor would be required to address these issues on a case-by-case basis through preparation of required soils and geotechnical engineering studies and adherence to the recommendations therein. They would also be required to adhere to existing local and state laws and regulations including the applicable California Building Standards Code (CBSC) standards and requirements. Thus, the combination of the project with other cumulative development would not have a significant cumulative impact.

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4.8 Greenhouse Gas Emissions/Climate Change

This section analyzes greenhouse gas (GHG) emissions associated with the proposed project and potential impacts related to climate change. This section describes regional GHG emission sources and inventories, the regulatory framework applicable to GHG emissions, and evaluates potential project impacts related to GHG emissions as a result of project construction and operation.

4.8.1 Existing Conditions

a. Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans, along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. The baseline against which these changes are measured originates in historical records identifying temperature changes that have occurred in the past, such as during previous ice ages. The global climate is continuously changing, as evidenced by repeated episodes of substantial warming and cooling documented in the geologic record. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. Per the United Nations Intergovernmental Panel on Climate Change (IPCC), the understanding of anthropogenic warming and cooling influences on climate has led to a high confidence (95 percent or greater chance) that the global average net effect of human activities has been the dominant cause of warming since the mid-20th century (IPCC 2014).

Gases that absorb and re-emit infrared radiation in the atmosphere are called GHGs. They are present in the atmosphere naturally and are released by natural sources or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO₂), methane (CH₄), nitrous oxides (N₂O), fluorinated gases such as hydrofluorocarbons (HFC) and perfluorocarbons (PFC), and sulfur hexafluoride (SF₆). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere, and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

The following discusses the primary GHGs of concern.

Carbon Dioxide

The global carbon cycle is made up of large carbon flows and reservoirs. Billions of tons of carbon in the form of CO₂ are absorbed by oceans and living biomass (i.e., sinks) and are emitted to the atmosphere annually through natural processes (i.e., sources). When in equilibrium, carbon fluxes among these various reservoirs are roughly balanced (United States Environmental Protection Agency [USEPA] 2018a). CO₂ was the first GHG demonstrated to be increasing in atmospheric concentration, with the first conclusive measurements being made in the last half of the 20th century. Concentrations of CO₂ in the atmosphere have risen approximately 40 percent since the industrial revolution. Currently, CO₂ represents an estimated 76 percent of total GHG emissions (USEPA 2018b). The largest source of CO₂ and of overall GHG emissions is fossil fuel combustion.

Methane

Methane (CH₄) is an effective absorber of radiation, though its atmospheric concentration is less than that of CO₂, and its lifetime in the atmosphere is limited to 10 to 12 years. Since 1750 (pre-industrial years), the concentration of CH₄ in the atmosphere has increased by 150 percent, although emissions have declined from 1990 levels (IPCC 2013). Anthropogenic sources of CH₄ include agricultural activities, waste management, energy use, and biomass burning (USEPA 2018b).

Nitrous Oxide

Concentrations of nitrous oxide (N₂O) began to rise at the beginning of the industrial revolution and continue to increase at a relatively uniform growth rate (NOAA 2018). N₂O is produced by microbial processes in soil and water, including those reactions that occur in fertilizers that contain nitrogen, fossil fuel combustion, and other chemical processes. Use of these fertilizers has increased over the last century. Agricultural soil management and mobile source fossil fuel combustion are the major sources of N₂O emissions.

Fluorinated Gases

Fluorinated gases are powerful GHGs that are emitted from a variety of industrial processes. Fluorinated gases are used as substitutes for ozone-depleting substances such as chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC), and halons, which have been regulated since the mid-1980s because of their ozone-destroying potential and were phased out under the Montreal Protocol (1987) and Clean Air Act Amendments of 1990. Electrical transmission and distribution systems account for most SF₆ emissions, while PFC emissions result from semiconductor manufacturing and as a by-product of primary aluminum production.

b. Global Warming Potential

Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). The carbon dioxide equivalent (CO₂e) metric is a consistent methodology for comparing GHG emissions because it normalizes various GHG emissions to a consistent measure. It is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a GWP of one. By contrast, CH₄ has a GWP of 25, meaning its global warming effect is 25 times greater than carbon dioxide on a molecule per molecule basis. Therefore, one metric ton (MT) of CH₄ is equal to 25 MT CO₂e. The GWP for nitrous oxide is approximately 298 times that of CO₂. Fluorinated gases are typically emitted in smaller quantities than CO₂, CH₄, and N₂O; but these compounds have much higher GWPs. SF₆ is the most potent GHG the IPCC has evaluated, with a GWP of 22,800 (USEPA 2019). The total emissions of the pollutants of concern for the project (CO₂, CH₄, and N₂O) are reported together using the CO₂e metric in this analysis.

c. Greenhouse Gas Emissions Inventories

Worldwide anthropogenic emissions of GHG were approximately 49,000 million metric tons (MMT) CO₂e in 2010 (IPCC 2014). CO₂ emissions from fossil fuel use accounts for 32,000 MMT. CO₂ emissions from all sources account for 76 percent of the total. Methane emissions account for 16 percent of GHG, and N₂O emissions account for six percent (IPCC 2014).

Total U.S. GHG emissions were 6,457 MMT CO₂e in 2016 (USEPA 2018c). Total U.S. emissions have increased by 1.3 percent since 1990; and emissions decreased by 0.5 percent from 2016 to 2017

(USEPA 2019). This decrease was primarily due to a decrease in fossil fuel consumption, both from substitution of coal with non-fossil energy sources, and milder weather that decreased energy demand. Relative to 1990, gross emissions in 2017 are higher by 1.3 percent, down from a high of 15.7 percent above 1990 levels in 2007. CO₂ emissions from fossil fuel consumption continue to be the largest source of U.S. GHG emissions, accounting for approximately 77 percent of emissions since 1990 (USEPA 2019).

Based upon the California Air Resources Board (CARB) California Greenhouse Gas Inventory for 2000-2016, California produced 429 MMT CO₂e in 2016, 12 MMT CO₂e lower than 2015 levels (CARB 2018). Transportation is the major source of GHG in California, contributing 39 percent of the state's total GHG emissions. Industrial operations are the second largest source, contributing 21 percent of the state's GHG emissions. California's GHG emissions have followed a declining trend since 2007. Specifically, emissions from the electricity sector continue to decline due to growing zero-GHG energy generation sources.

An inventory of GHG emissions in the Monterey Bay area was prepared as part of the 2040 Metropolitan Transportation Plan/ Sustainable Communities Strategy and Regional Transportation Plans for Monterey, San Benito and Santa Cruz Counties (MTS/SCS). In 2015, counties within the Association of Monterey Bay Area Governments (AMBAG) region, including Monterey County, emitted 4,842,695 MT CO₂e of GHGs (AMBAG 2018a). On-road vehicle use accounted for 2,692,239 MT CO₂e, or approximately 56 percent, of total emissions.

d. Potential Effects of Climate Change

Potential impacts of climate change in California may include sea level rise, loss of water supply and snow pack, more large forest fires, damage to agriculture, public health impacts, and habitat destruction (Office of the Attorney General [OAG] 2018). These potential impacts are also anticipated in the Monterey Bay area.

The most relevant effects of climate change to the project corridor are those that could result in potential damage to a trail located in coastal communities and along the wildland urban interface: sea level rise, storm flooding, and fire risk. These potential effects are described below. The area currently at risk for available sea level rise and storm flooding is based on data from the Coastal Resilience program web mapping tool (Nature Conservancy 2019). The Coastal Resilience program is led by The Nature Conservancy in partnership with practitioners around the world who are applying spatial planning innovations to coastal hazard risk, resilience and adaptation issues (Nature Conservancy 2019). Existing conditions are based on 2010 data.

Sea Level Rise

The sea level along California's coasts has risen nearly eight inches in the past century and is projected to rise by as much as 20 to 55 inches by the end of the century (OAG 2018). A rise in sea levels could result in coastal flooding and erosion, and could jeopardize California's water supply due to saltwater intrusion. The Monterey Bay in particular has experienced sea level rise of approximately two to three millimeters per year (AMBAG 2018a). The portion of the Trail alignment surrounding Laguna Grande Regional Park (Canyon Del Rey/SR 218 segment) is adjacent to the existing tidal inundation hazard area (Nature Conservancy 2019).

Storm Flooding

Higher sea levels could worsen existing flood hazards by increasing the frequency of flooding during storms, increasing the extent of storm flooding inland, and preventing drainage of storm waters (DWR 2016). The Canyon Del Rey/SR 218 segment surrounding Laguna Grande Regional Park is adjacent to the existing storm flooding hazard area (Nature Conservancy 2019).

Fire Risk

Climate change makes open space areas more vulnerable to fires by increasing temperatures and making forests and brush drier. The fire season in California has begun to start earlier, last longer, and is more intense than in the last several decades. Wildfire occurrence statewide could increase several fold by the end of the century, increasing fire suppression and emergency response costs and damage to property (OAG 2018). Wildfires in 2018 set state records for burn area and destruction. The Mendocino Complex Fire in July 2018 burned more than 459,123 acres and is the largest recorded wildfire in the state (III 2019). The Camp Fire in Butte County in November 2018 is the deadliest and most destructive fire on record, destroying over 18,800 structures and resulting in 88 deaths (III 2019).

As detailed in **Section 4.17, Wildfire**, portions of the project corridor have been mapped as Moderate, High, and Very High Wildfire Hazard Areas by CAL FIRE due to the presence of wildfire prone vegetation, steep and dry slopes, and the presence or proximity of structures vulnerable to wildland fires (see **Figure 4.17-1**). Approximately 16.5 miles or 59 percent of the proposed FORTAG alignment would be located predominately in areas designated as High Fire Hazard Severity Zones, with a southern portion of the National Monument Loop segment traversing through areas designated as Very High Fire Hazard Severity Zones (approximately 3.5 miles or 12 percent). Smaller portions of the project corridor would also be located in areas designated as Moderate Fire Hazard Severity Zones (approximately 1.8 miles or six percent) and urban areas (approximately 5.8 miles or 21 percent). Less than one mile of the project corridor would traverse through areas designated as non-wildland/non-urban.

4.8.2 Regulatory Setting

International

Intergovernmental Panel on Climate Change

In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis for human-induced climate change, its potential impacts, and options for adaptation and mitigation. The most recent reports of the IPCC have emphasized the scientific consensus that real and measurable changes to the climate are occurring, that they are caused by human activity, and that significant adverse impacts on the environment, the economy, and human health and welfare are unavoidable.

Federal

U.S. Environmental Protection Agency Endangerment Finding and Cause or Contribute Finding

In its Endangerment Finding, signed in December 2009, the administrator of the USEPA found that GHGs in the atmosphere threaten the public health and welfare of current and future generations. Although the Endangerment Finding does not place requirements on industry, it is an important step in the EPA's process to develop regulations. This action was a prerequisite to finalizing the USEPA's proposed GHG emission standards for light-duty vehicles.

In the USEPA's Cause or Contribute Finding, the administrator found that the combined emissions of these well-mixed GHG from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.

State

CARB is responsible for the coordination and oversight of State and local air pollution control programs in California. California has numerous regulations aimed at reducing the state's GHG emissions. These initiatives are summarized below.

Executive Order S-3-05 and EO B-30-15

In 2005, Governor Schwarzenegger issued Executive Order (EO) S-3-05, establishing statewide GHG emissions reduction targets. EO S-3-05 provides that by 2010, emissions shall be reduced to 2000 levels; by 2020, emissions shall be reduced to 1990 levels; and by 2050, emissions shall be reduced to 80 percent below 1990 levels (CalEPA 2006). In response to EO S-3-05, CalEPA created the Climate Action Team (CAT), which in March 2006 published the Climate Action Team Report (the "2006 CAT Report") (CalEPA 2006). The 2006 CAT Report identified a recommended list of strategies that the state could pursue to reduce GHG emissions. These are strategies that could be implemented by various state agencies to ensure that the emission reduction targets in EO S-3-05 are met and can be met with existing authority of the state agencies. The strategies include the reduction of passenger and light duty truck emissions, the reduction of idling times for diesel trucks, an overhaul of shipping technology/infrastructure, increased use of alternative fuels, increased recycling, and landfill methane capture, etc. In April 2015, the governor issued EO B-30-15 calling for a new target of 40 percent below 1990 levels by 2030.

Executive Order S-13-08

On November 14, 2008, the Governor issued Executive Order S-13-08, the Climate Adaptation and Sea Level Rise Planning Directive that provided clear direction for how the state should plan for future climate impacts. S-13-08 calls for the implementation of four key actions to reduce the vulnerability of California to climate change:

1. Initiate California's first statewide Climate Change Adaptation Strategy that will assess the state's expected climate change impacts, identify where California is most vulnerable and recommend climate adaptation policies
2. Request the National Academy of Science establish an expert panel to report on sea level rise impacts in California in order to inform state planning and development efforts
3. Issue interim guidance to state agencies for how to plan for sea level rise in designated coastal and floodplain areas for new and existing projects

4. Initiate studies on critical infrastructure projects, and land use policies vulnerable to sea level rise

The *Climate Change Adaptation Strategy* was developed by the California Natural Resources Agency (CNRA), in coordination with Cal EPA; California Climate Action Team (CCAT); the Business, Transportation and Housing Agency; California Department of Public Health; and other key stakeholders. Adopted in 2009, the *Climate Change Adaptation Strategy* synthesizes the most up-to-date information on expected climate change impacts to California for policy-makers and resource managers, provides strategies to promote resiliency to these impacts, and develops implementation plans for short- and long-term actions (CNRA 2009).

In January 2018, the California Natural Resources Agency, in coordination with other state agencies, released an update to the Climate Change Adaptation Strategy called the *Safeguarding California Plan: 2018 Update*. The update provides recommendations and a framework for policy initiatives in response to the impacts of climate change (CNRA 2018a). Unlike the Climate Change Adaptation Strategy, the 2018 Update does not provide a comprehensive overview of existing science. This information is provided in California's Fourth Climate Change Assessment (CNRA 2018b). Expected impacts in California include rising temperatures, rising sea levels, declining snowpack, increasing storm intensity, increased drought intensity, and increased wildfire risk.

Assembly Bill 32, the California Global Warming Solutions Act of 2006

In September 2006, the California State Legislature adopted Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing GHG emissions in California. GHGs as defined under AB 32 include CO₂, CH₄, N₂O, CFCs, HFCs, PFCs, and SF₆. Under AB 32, CARB has the primary responsibility for reducing GHG emissions and continues the CCAT to coordinate statewide efforts and promote strategies that can be undertaken by many other California agencies. AB 32 required CARB to adopt rules and regulations that would achieve GHG emissions equivalent to state-wide levels in 1990 by 2020.

In general, AB 32 directed CARB to do the following:

- Prepare and approve a Scoping Plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs by 2020, and update the Scoping Plan every five years
- Maintain and continue reductions in emissions of GHG beyond 2020
- Identify the statewide level of GHG emissions in 1990 to serve as the emissions limit to be achieved by 2020
- Identify and adopt regulations for discrete early actions that could be enforceable on or before January 1, 2010
- Adopt a regulation that establishes a system of market-based declining annual aggregate emission limits for sources or categories of sources that emit GHG emissions
- Convene an Environmental Justice Advisory Committee to advise the Board in developing and updating the Scoping Plan and any other pertinent matter in implementing AB 32
- Appoint an Economic and Technology Advancement Advisory Committee to provide recommendations for technologies, research and GHG emission reduction measures

Regarding the first bullet, the initial Scoping Plan was approved by CARB on December 11, 2008, and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures (CARB 2008).

The 2014 Scoping Plan Update was adopted in May 2014 (CARB 2014). This first update identified opportunities for GHG reductions using existing and new funding sources, defined CARB's climate change priorities for the next five years, and established the plan for meeting the long-term goals of EO S-3-05, described above. The update highlights California's progress toward meeting the 2020 GHG emission reduction goals defined in the initial Scoping Plan and evaluates GHG reduction strategies may be aligned with other state priorities for water, waste, natural resources, clean energy, transportation, and land use. According to the Scoping Plan, California is on track to meet the 2020 GHG emission reduction goal.

Senate Bill 97

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in California Environmental Quality Act (CEQA) documents. In March 2010, the California Resources Agency adopted amendments to the *State CEQA Guidelines* for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and climate change impacts.

Senate Bill 32

On September 8, 2016, the governor signed SB 32 into law extending AB 32 by requiring the state to further reduce GHGs to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged).

CARB 2017 Scoping Plan

In December 2017, in response to SB 32, CARB adopted an updated its *2017 Scoping Plan*, which identifies GHG reductions by emissions sector to achieve a statewide emissions level that is 40 percent below 1990 levels by 2030 (CARB 2017). In that document, CARB recommends statewide targets of no more than six metric tons CO₂e per capita by 2030 and no more than two metric tons CO₂e per capita by 2050. However, CARB specifically states that these goals are appropriate for the plan level (city, county, sub-regional, or regional level, as appropriate), but not for specific individual projects because they include all emissions sectors in the state.

The 2017 Scoping Plan Update also includes the following recommendations for local governments when considering discretionary approvals and entitlements of individual projects through CEQA:

Achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development. There are recent examples of land use development projects in California that have demonstrated that it is feasible to design projects that achieve zero net additional GHG emissions. Several projects have received certification from the Governor under AB 900, the Jobs and Economic Improvement through Environmental Leadership Act (Buchanan, Chapter 354, Statutes of 2011), demonstrating an ability to design economically viable projects that create jobs while contributing no net additional GHG emissions. Another example is the Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan, in which the applicant, Newhall Land and Farming Company, proposed a commitment to achieve net zero GHG emissions for a very large-

scale residential and commercial specific planned development in Santa Clarita Valley. Achieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA. Lead agencies have the discretion to develop evidence-based numeric thresholds (mass emissions, per capita, or per service population) consistent with this Scoping Plan, the State's long-term GHG goals, and climate change science.

To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT [vehicle miles traveled], and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits locally. For example, on-site design features to be considered at the planning stage include land use and community design options that reduce VMT, promote transit-oriented development, promote street design policies that prioritize transit, biking, and walking, and increase low carbon mobility choices, including improved access to viable and affordable public transportation, and active transportation opportunities. Regionally, additional GHG reductions can be achieved through direct investment in local building retrofit programs that can pay for cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting, energy efficient appliances, energy efficient windows, insulation, and water conservation measures for homes within the geographic area of the project. These investments generate real demand side benefits and local jobs, while creating the market signals for energy efficient products, some of which are produced in California. Other examples of local direct investments include financing installation of regional electric vehicle (EV) charging stations, paying for electrification of public school buses, and investing in local urban forests.

(CARB, California's 2017 Climate Change Scoping Plan, p. 102 [footnotes omitted].)

Senate Bill 350

In the 2015 legislative session, the Legislature passed SB 350 (Stats. 2015, ch. 547). This legislation added language to the Public Utilities Code that essentially puts into statute the 2050 GHG reduction target already identified in Executive Order S-3-05, albeit in the limited context of new state policies (i) increasing the overall share of electricity that must be produced through renewable energy sources and (ii) directing certain state agencies to begin planning for the widespread electrification of the California vehicle fleet. Section 740.12(a)(1)(D) of the Public Utilities Code now states that "[t]he Legislature finds and declares [that] . . . [r]educing emissions of [GHGs] to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050 will require widespread transportation electrification." Furthermore, Section 740.12(b) now states that the California Public Utilities Commission (PUC), in consultation with ARB and the California Energy Commission (CEC), must "direct electrical corporations to file applications for programs and investments to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, . . . and reduce emissions of greenhouse gases to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050."

Local

AMBAG 2040 Metropolitan Transportation Plan and the Sustainable Communities Strategy and TAMC 2018 Regional Transportation Plan

The Final 2018 Regional Transportation Plan for Monterey County (RTP) adopted by TAMC meets Senate Bill 375 requirements to prepare a Sustainable Communities Strategy (SCS) through the 2040 MTP/SCS adopted by AMBAG in June 2018 (AMBAG 2018b). The SCS includes active transportation as a key element to reduce greenhouse gases, reduce roadway congestion, and increases health and the quality of life of residents, and refers to TAMC projects that would enhance walking and biking facilities. The FORTAG project is a planned active transportation project in the 2018 RTP.

Local Climate Action Plans

Two of the jurisdictions that would include a portion of the Trail alignment, the County of Monterey and the City of Monterey, have adopted climate action plans that set goals and outline policies to achieve GHG reduction targets. The County has conducted baseline emissions inventories, which establish a reference point for GHG emissions reduction for municipal operations, and the City for community and municipal operations. The City of Monterey plan also includes GHG reducing measure Transportation Action 13 that encourages active recreation opportunities. California State University, Monterey Bay is currently in the beginning stages of developing a climate action plan; however, inventories are not yet available.

4.8.3 Methodology and Significance Thresholds

Methodology

This section describes the potential environmental impacts of the proposed FORTAG project and all FORTAG design options relevant to greenhouse gas emissions and climate change.

GHG Emissions

Criteria pollutant emissions are reported as the worst-case daily emissions. The analysis focuses on CO₂, CH₄, and N₂O because these represent most of the project's GHG emissions, which would result from operation of construction equipment and associated vehicle trips. The remaining GHG pollutants are associated with industrial processes and, as a recreational trail, the potential for such emissions from the project would be minimal.

DETERMINING EMISSIONS

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate construction emissions for the proposed project, using the same assumptions as described in **Section 4.3, Air Quality**. The 7.97-mile National Monument Loop segment is the longest of the seven planning segments and thus characterizes the worst-case segment for estimating maximum daily emissions during construction. However, since this segment represents approximately 28 percent of the total 28 miles of proposed trail, assuming the same level of GHG emissions as this segment for the remaining six segments would overestimate emissions. Therefore, total GHG emissions for the 7.97-mile National Monument Loop were divided by the segment length to estimate GHG emissions per mile of construction. Estimated per mile emissions were then multiplied by the total 28-mile Trail length to estimate total GHG emissions from proposed project construction.

Operational GHG emissions are evaluated qualitatively because the proposed project is anticipated to result in a nominal increase in future vehicle trips and emissions.

DETERMINING THRESHOLDS

Neither the Monterey Bay Air Resources District (MBARD), AMBAG, nor the area jurisdictions have adopted an evidence-based numeric threshold consistent with the 2017 Scoping Plan and the state's long-term GHG reduction goals. In the past, MBARD has recommended use of the Bay Area Air Quality Management District (BAAQMD) adopted thresholds, but these thresholds do not address the state's long-term 2050 emissions reduction goal. The County of Monterey and the City of Monterey have adopted climate action plans, but these plans do not include a threshold or project-specific requirements for determining whether project emissions are cumulatively considerable. Therefore, they are not considered "qualified" to determine the significance of a project, according to *CEQA Guidelines* Section 15183.5. GHG analysis guidance published by the state, MBARD, area jurisdictions, and AMBAG, was reviewed and considered in determining an applicable standard for the project. As described below, existing thresholds generally fall into three categories: bright-line thresholds, per capita thresholds, or net-zero emissions.

Bright-Line Thresholds

Numeric thresholds adopted by other agencies were considered as an option, including a threshold of 900 MT CO₂e (annual emissions) recommended by the California Air Pollution Control Officers Association (CAPCOA) (CAPCOA 2008), and a threshold of 1,100 MT CO₂e (annual emissions) adopted by the Sacramento Metropolitan Air Quality Management District and referenced in the 2017 Scoping Plan (CARB 2017). These so-called bright-line thresholds¹ address the state's long-term emissions reduction goals by determining a screening level under which a project would not be considered to hinder the state's ability to meet long-term goals. Bright-line thresholds are typically intended to screen out smaller projects with relatively minimal emissions so that the vast majority (typically 90 percent) of total future development would be subject to mitigation or project features that would reduce GHG emissions, compared to business-as-usual emissions and consistent with GHG reduction goals (CAPCOA 2008). These thresholds were ultimately rejected for this analysis because they do not specifically address the contribution of emissions in Monterey County to the statewide goals.

Service Population or Per Capita Thresholds

Numeric thresholds based on service population (defined as residents and employees) or per capita thresholds are also acceptable per the 2017 Scoping Plan. However, the project would not generate any residents or employees. Therefore, a service population threshold would not be appropriate for this type of project.

Net Zero Emissions

A screening level of net zero emissions for ongoing, annual operational emissions is consistent with the AMBAG methodology for the 2040 MTP/SCS and the 2017 Scoping Plan. The 2017 Scoping Plan recognizes that achieving no net increase in ongoing operational GHG emissions compared to existing conditions would demonstrate that a project is not contributing to climate change impacts,

¹ A bright-line threshold is a numeric threshold that provides a clearly defined rule to determine whether emissions are significant or less than significant and does not vary based on the size of type of project.

and it is a recommended objective for land use development projects that are able to feasibly achieve this goal. Therefore, the project would not result in a significant impact on the environment if GHG emissions would result in zero net additional GHG emissions compared to the existing conditions baseline. However, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA.

Based on the review of existing thresholds related to GHG emissions, the significance of the proposed project's GHG emissions is based on screening level of net-zero operational emissions and consistency with the regional plan to reduce GHG emissions – the 2040 MTP/SCS.

Climate Change

The potential for the proposed project to exacerbate adverse effects from climate change, or to impair a jurisdiction's ability to respond to effects related to sea level rise, extreme storm events, and fire risk is addressed based on data from the Coastal Resilience program web mapping tool (Nature Conservancy 2019) and mapping from CAL FIRE (2008). The Coastal Resilience mapping tool was used to predict risk to the Trail alignment from sea level rise and storm flooding. The predicted risks are mapped by the Nature Conservancy based on best available prediction tools and data. Since modeling cannot definitively predict the future effects of climate change, this analysis is based on the most conservative (highest risk) prediction of the effects of climate change. Actual future sea level rise, storm flooding, and wildfires may differ from predictions. For the FORTAG risk analysis, the highest predicted risk scenario for Year 2060 was considered for each hazard. Predictions for Year 2030 and Year 2100 are also available. Year 2060 was determined to be the most appropriate year for the lifetime of the project. Year 2030 emissions may underestimate risks over the lifetime of the project; however, Year 2100 risks are outside of the likely lifetime of the project and surrounding development and present a speculative risk scenario.

Significance Thresholds

The significance thresholds used in this analysis are based on Appendix G of the *State CEQA Guidelines*. The *CEQA Guidelines* do not quantify the amount of GHG emissions that would constitute a significant impact on the environment. Determination of the significance of GHG emissions is at the discretion of the lead agency, which may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts (*CEQA Guidelines* Section 15064.4(a), 15064.7(c)).

In *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369, 377, the California Supreme Court held that “agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents.” However, the court did not hold that CEQA never requires consideration of the effects of existing environmental conditions on the future occupants or users of a proposed project. “[W]hen a proposed project *risks exacerbating* those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project's impact on the environment—and not the environment's impact on the project—that compels an evaluation of how future residents or users could be affected by exacerbated conditions.” (*Id.* at pp. 377-378 [italics added].) When the case was remanded from the Supreme Court down to the Court of Appeal, the latter body noted that, for a public project, a lead agency could choose to disregard these limitations on the scope of CEQA analysis and could voluntarily address the effects of preexisting environmental hazards of project

users. (*California Building Industry Association v. Bay Area Air Quality Management District* (2016) 2 Cal.App.5th 1067, 1082-1083.) TAMC chooses to do so here in Threshold C below with respect to the question of whether the consequences of climate change could affect future Trail users.

Therefore, for the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

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 greenhouse gases
3. Exacerbate the adverse effects or impair the ability of jurisdictions to respond to adverse effects of climate change, including the risk of loss, injury, or death as a result of projected sea level rise, storm flooding, or fire risk

The significance of the proposed project's GHG emissions is based on screening level of net-zero operational emissions and consistency with the regional plan to reduce GHG emissions - the 2040 MTP/SCS, based on the review of the existing thresholds related to GHG emissions, as described under Methodology above.

4.8.4 Project Impact Analysis

Threshold 1: Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Impact GHG-1 THE PROJECT WOULD NOT GENERATE NEW, ONGOING SOURCES OF GHG EMISSIONS THAT WOULD HAVE A DIRECT OR INDIRECT SIGNIFICANT IMPACT ON THE ENVIRONMENT. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The proposed project has the potential to generate GHG emissions during construction from operation of heavy construction equipment and truck and vehicle trips. The GHG emissions estimated for construction of the National Monument Loop segment of the Trail were estimated using CalEEMod, Version 2016.3.2 and the same assumptions as the air quality analysis, as presented in **Section 4.3, Air Quality**. Modeling results are provided in **Appendix D**.

Construction

Construction of the 7.97-mile National Monument Loop segment would generate of a total of approximately 747 MT CO₂e over an 18-month construction period. As described under Methodology, construction emissions for this segment are divided by segment length to estimate GHG emissions of approximately 94 MT CO₂e per mile of construction. At 28 miles, construction of the proposed entire FORTAG alignment would result in a total of approximately 2,632 MT CO₂e.

For comparison, in 2015, counties within the AMBAG region, including Monterey County, emitted 4,842,695 MT CO₂e of GHGs (AMBAG 2018a). Project construction would result in the one-time contribution of approximately 0.05 percent of annual regional GHG emissions. Additionally, construction of the project would take place over several years, so that actual proportion of any given year's GHG emissions would be even less. As such, construction of the project would result in a nominal one-time contribution to regional GHG emissions.

Operation

Operation of the proposed project would not generate significant GHG emissions. No new or expanded parking facilities would be provided to accommodate Trail visitors; thus, no net increase in vehicle trips to and from the Trail is anticipated. As described in **Section 2.4** of the *Project Description*, no new trail amenities requiring water are proposed, and new trail lighting and pedestrian crossing lights would be solar powered and would not generate GHG emissions. New trash receptacles would be installed, and trash collection would result in negligible GHG emissions above existing trash collection activities from other recreational trail and park uses in the area. Ultimately, the project is not anticipated to result in a net increase in GHG emissions as regional VMT is anticipated to decrease as a result of the project because the Trail would provide new opportunities for active transportation. Therefore, operation of the proposed project would not result in new, ongoing GHG emissions having a significant impact on the environment.

Additionally, the 2040 MTP/SCS is the regional planning document to reduce GHG emissions related to transportation in the region. The 2040 MTP/SCS includes active transportation as a key element to reduce greenhouse gases, reduce roadway congestion, and increases health and the quality of life of residents, and refers to TAMC projects that would enhance walking and biking facilities. The FORTAG project is specifically identified as a planned active transportation project in the 2018 RTP. Therefore, the proposed project would implement a planned active transportation facility that would assist in the implementation of the 2040 MTP/SCS.

In summary, the project would result in a temporary one-time contribution of 2,632 MT CO₂e during construction, but the project would not result in a net increase in ongoing annual GHG emissions compared to existing site conditions. The proposed project implements a goal of the 2040 MTP/SCS to increase active transportation opportunities. GHG emissions are ultimately anticipated to decrease under operation of the project as area vehicle trips are replaced by active transportation. Therefore, GHG emissions from the project would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

This impact would be less than significant without mitigation.

Threshold 2: Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?
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Impact GHG-2 THE PROJECT WOULD NOT CONFLICT WITH AN APPLICABLE PLAN, POLICY, OR REGULATION ADOPTED FOR THE PURPOSE OF REDUCING GHG EMISSIONS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The 2017 Scoping Plan and the 2040 MTP/SCS are the applicable GHG reduction plans for the proposed project. As described in **Section 4.8.1, Regulatory Setting**, EO B-30-15 established a statewide emissions reduction target of 40 percent below 1990 levels by 2030, which was codified by SB 32. EO S-3-05 established a statewide emissions reduction target of 80 percent below 1990 levels by 2050. According to the most recent data included in the 2017 Scoping Plan, the state is on track to achieve the 2020 target (CARB 2017). As discussed under Impact GHG-1, the proposed project would result in nominal construction emissions and would not result in a net increase in

ongoing annual GHG emissions, which is consistent with the recommendations of the 2017 Scoping Plan.

The 2040 MTP/SCS is the regional planning document that meets the Senate Bill 375 SCS requirement and is incorporated by reference into the 2018 RTP adopted by TAMC. As discussed above under Impact GHG-1, the SCS includes active transportation as a key element to reduce greenhouse gases, and refers to TAMC projects that would enhance walking and biking facilities. The FORTAG project is specifically identified as a planned active transportation project in the 2018 RTP. Therefore, the proposed project would implement a planned active transportation facility that would assist in the implementation of the 2040 MTP/SCS. It does not include any elements that would increase ongoing GHG emissions or roadway congestion.

In summary, the proposed project would be consistent with the 2017 Scoping Plan and the 2040 MTP/SCS. This impact would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

This impact would be less than significant without mitigation.

Threshold 3: Would the project exacerbate the adverse effects or impair the ability of jurisdictions to respond to adverse effects of climate change, including the risk of loss, injury, or death as a result of projected sea level rise, storm flooding, or fire risk?

Impact GHG-3 THE PROJECT WOULD NOT EXPOSE PEOPLE OR STRUCTURES TO SUBSTANTIAL RISK OF LOSS, INJURY, OR DEATH FROM PROJECTED SEA LEVEL RISE, STORM FLOODING, OR FIRE RISK. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

This impact discussion addresses the potential for the proposed project to exacerbate the adverse effects from impacts of climate change related to sea level rise, extreme storm events, and fire risk, or impair the ability of local jurisdiction to respond to these risks.

Sea Level Rise

The proposed Trail alignment is located east of Highway 1 and is almost entirely outside of the predicted tidal inundation hazard area. As described in **Section 4.10, Hydrology and Water Quality**, the project corridor is largely not located within a tsunami inundation zone, with the exception of the Canyon Del Rey/SR 218 segment, northwest of Fremont Boulevard to Roberts Lake (DOC 2009). This area is also located adjacent to both Laguna Grande and Roberts Lakes, thereby increasing the risk of a seiche during a seismic event (Seaside 2004).

Thus, the portion of the Trail alignment surrounding Laguna Grande Regional Park (Canyon Del Rey/SR 218 segment) is currently and, in 2060, would still be adjacent to the tidal inundation hazard area (Nature Conservancy 2019). This portion of the alignment is currently in use as an unnamed path for pedestrians and bicyclists and does not include any structures for human occupancy. The proposed Canyon Del Rey/SR 218 Trail segment would not make any changes to the existing landscape that would increase the risk of exposure of people or structures to substantial adverse effects from impacts of climate change related to sea level rise. The proposed project does not

introduce any new structures that would potentially require protection from sea level rise as part of climate adaptation efforts. This impact would be less than significant.

Storm Flooding

Similar to the risk from Sea Level Rise, the proposed Trail alignment is outside of the potential storm flooding risk area, with the exception of the portion of the Canyon Del Rey/SR 218 segment surrounding Laguna Grande Regional Park. This area is currently adjacent to and, in 2060, would be partially within the storm flooding hazard area (Nature Conservancy 2019). This portion of the alignment is currently considered a recreational facility and does not include any structures for human occupancy. Implementation of the Trail does not include any new structures in a flood risk area that would potential result in displacement of residents in the event of storm flooding. As addressed in **Section 4.10, Hydrology and Water Quality**, the proposed Trail would not significant impact area drainage such that flooding impacts would occur elsewhere and exacerbate extreme storm events. Therefore, impacts related to storm flooding would be less than significant.

Fire Risk

As described under *Existing Conditions* and detailed in **Section 4.17, Wildfire**, portions of the project corridor have been mapped as Moderate, High, and Very High Wildfire Hazard Areas by CAL FIRE due to the presence of wildfire prone vegetation, steep and dry slopes, and the presence or proximity of structures vulnerable to wildland fires. The risk of fire along the entire FORTAG corridor, as is expected of much of California, may increase as a result of climate change.

The proposed project would not result in an increase in water use and would not impact the availability or accessibility of water resources for fire response. Routine maintenance of the Trail is anticipated to include tree and shrub trimming, grass mowing, and weed removal that would prevent overgrowth that potentially would provide fuel for wildfire. Therefore, the proposed project does not include components that would increase exposure of existing development to fire risk or adversely impact response to fires. This impact would be less than significant.

In summary, the potential for the proposed project to expose people or structures to substantial adverse effects from impacts of climate change related to sea level rise, storm flooding, and fire risk would be a less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

This impact would be less than significant without mitigation.

4.8.5 Cumulative Impact Analysis

GHG and climate change are, by definition, cumulative impacts. The geographic scope for considering cumulative impacts related to GHG emissions is the state of California. Although GHG emissions have worldwide repercussions, the contribution of the project to the impact is addressed in light of the goals for reducing statewide emissions.

Statewide GHG emissions are an existing significant cumulative impact. As such, the state has established the following statewide emissions reductions targets:

- By 2020, reduce GHG emissions to 1990 levels
- By 2030, reduce GHG emissions to 40 percent below 1990 levels
- By 2050, reduce GHG emissions to 80 percent below 1990 levels

Implementation of all the projects listed in **Table 3-1** would increase statewide GHG emissions and thus result in a cumulative impact. However, the proposed FORTAG project would result in nominal temporary increase in emissions as a result of construction and would not result in a net increase in ongoing annual GHG emissions. As an active transportation corridor, the proposed project would likely result in a net decrease in vehicle miles traveled and thus inherently associated GHG emissions. Additionally, the project would implement an active transportation project identified by TAMC, consistent with the 2040 MTP/SCS. The project would be in compliance with statewide and local emissions reduction strategies and targets. Therefore, the project's contribution to cumulative GHG emissions impacts would not be cumulatively considerable.

4.9 Hazards and Hazardous Materials

This section analyzes impacts associated with exposure to hazards and hazardous materials as a result of the construction of the proposed FORTAG project. Specifically, this analysis addresses impacts related to hazardous materials use and transportation, the accidental release of hazardous materials, development on contaminated sites, air traffic hazards, and interference with emergency response and evacuation plans. Impacts associated with wildfire are addressed in **Section 4.17, Wildfire**. This analysis is partially based on the **Phase I Environmental Site Assessment (ESA)** for the Trail prepared by Rincon Consultants in July 2019 (**Appendix G**) and reconnaissance of the proposed alignment performed June 24 through 28, 2019.

4.9.1 Existing Conditions

a. Definitions

Hazardous Waste

The United States Environmental Protection Agency (USEPA) defines a “hazardous waste” as a substance that (1) may cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating reversible illness, and (2) poses a substantial present or potential future hazard to human health or the environment when it is improperly treated, stored, transported, disposed of, or otherwise managed (40 Federal Code of Regulations (FCR) 261.10). Hazardous waste is also defined as ignitable, corrosive, explosive, or reactive and is identified by the USEPA by its form: solids, semi-solids, liquids, and gases. Producers of such wastes include private businesses and federal, state, and local government agencies. A material may also be classified as hazardous if it contains defined amounts of toxic chemicals. USEPA regulates the production and distribution of commercial and industrial chemicals to protect human health and the environment. USEPA also prepares and distributes information to inform the public about these chemicals and their effects, and provides guidance to manufacturers in pollution prevention measures, such as more efficient manufacturing processes and recycling used materials.

Hazard versus Risk

Public health is potentially at risk whenever hazardous materials have been used or where there could be exposure to such materials. Ecological communities, such as avian and terrestrial habitats and the aquatic environment, may be at risk, depending on the type of populations and locations relative to potential exposure sources. Important to the setting and analyses presented in this section are the concepts of the “hazard” of these materials and the “risk” they pose to human health and the ecological environment.

Exposure to some chemical substances may harm internal organs or systems in the human body, ranging from temporary effects to permanent disability or death. Aquatic, terrestrial, or avian species may be similarly adversely affected. Hazardous materials that result in adverse effects are generally considered toxic. However, chemical materials may be corrosive or react with other substances to form other hazardous materials, but they are not considered toxic because organs or systems are not affected. That is to say, because toxic materials can result in adverse health effects, they are considered hazardous materials, but not all hazardous materials are necessarily toxic. For purposes of the information and analyses presented in this section, the terms hazardous substances and hazardous materials are used interchangeably and include materials that are considered toxic.

The risk to human health and the ecological environment is determined by the probability of exposure to a hazardous material and the severity of harm such exposure would pose. The likelihood and means of exposure, along with the inherent toxicity of a material, are used to determine the degree of risk to human health or the ecosystem. For example, a high probability of exposure to a low toxicity chemical would not necessarily pose an unacceptable human health or ecological risk, whereas a low probability of exposure to a very high toxicity chemical might. Various regulatory agencies, such as USEPA, California Environmental Protection Agency (CalEPA), State Water Resources Control Board, California Department of Toxic Substances Control (DTSC), and federal and state Occupational Safety and Health Administrations (OSHA) are responsible for developing and/or enforcing risk-based standards to protect the public and the environment.

b. Hazardous Materials Searches

Standard Environmental Record Sources

A database search of public lists of sites that generate, store, treat, or dispose of hazardous material or sites for which a release or incident has occurred was completed for the proposed alignment with a half mile buffer. Approximately 80 sources were with a potential for concern occur within a half mile of the proposed alignment. Each Trail segment includes sources with a potential for concern as shown on **Tables 1.1** through **1.7** of the **Phase I ESA**. A list of all reported sites and a description can be viewed in **Appendix B** of the **Phase I ESA** (see **Appendix G**). Of the approximately 80 sources, eight sources have the potential to impact the proposed alignment.

Site Reconnaissance Observations

Rincon Consultants completed a site reconnaissance of the proposed alignment on June 24 through June 28, 2019. During the site reconnaissance, 10 above ground storage tanks (AST) were observed along the proposed alignment. Six ASTs were observed along the Northern Marina segment, two ASTs along the Northern Loop segment, two ASTs along the CSUMB Loop South segment, and one AST along the Canyon Del Rey/SR 218 segment. In addition, two empty drums were observed along the Northern Marina segment. Only one AST, adjacent to the Northern Marina segment, contains diesel fuel. The other 10 ASTs were for propane or unknown substances, and are not considered a hazardous material substance.

c. Hazards Associated with the Former Fort Ord

The Fort Ord Reuse Authority (FORA) is responsible for the oversight and economic recovery from the closure of and reuse planning of the former Fort Ord military base, which encompasses portions of the Northern Loop and National Monument Loop segments, along Inter Garrison Road and through Seaside, respectively. At the time of closure of Fort Ord in 1994, the U.S. Army left behind approximately 3,500 buildings that offered little or no use to the civilian community, ranging in date from the early 1900s to the late 1980s. These buildings became dilapidated over time, contained various forms of hazardous materials, and are frequently targeted sites for vandalism and illegal dumping close to various occupied buildings throughout the former base. FORA has determined that there are no foreseen uses for the remaining dilapidated buildings, and that it has become cost prohibitive to remodel them due to the amount of hazardous materials, health and safety code issues, and engineering challenges they present (FORA 2019a).

In fiscal year 2001-2002, the FORA Board established policy on building removal obligations that has been sustained since that time. Since 1996, FORA has removed over 500 World War II-era wooden

structures (approximately 4,000,000 square feet). The building removal programs FORA implemented include industrial hygienist services, with general hazmat assessments regarding toxic and hazardous substantive identification, such as, but not limited to lead-based paint (LBP), asbestos, underground storage tank leaks, molds, other hazardous materials, wastes, report preparation, site assessments, preliminary plans, working drawings, remediation and disposal. Details on building removal are available online at <https://www.fora.org/BuildingRemoval.html> (FORA 2019a, FORA 2019b).

The project corridor has remnant hazardous materials from historic military uses at the former Fort Ord base. The entire former Fort Ord base was added to the Superfund program's National Priorities List on February 21, 1990 (City of Seaside 2017). Hazardous and toxic waste materials and sites at the former Fort Ord base consist of a wide variety of materials including: industrial chemicals, petrochemicals, domestic and industrial wastes (landfills), asbestos and lead paint in buildings, above- and underground storage tanks.

As an active U.S. Army post the former Fort Ord provided infantry and artillery training for soldiers. As a result of the U.S. Army's use of military munitions, unexploded ordnances (UXO) may remain on former Fort Ord property. After reviewing the records of past training activities, the U.S. Army has identified areas where UXO's may remain; it has begun conducting investigations and removing UXOs in those areas. Areas where UXO's may be present are posted with danger signs and entry is prohibited (FORA n.d.).

The National Monument Loop segment, Ryan Ranch segment, and the eastern portion of the Canyon Del Rey/SR 218 segment were used previously used as U.S. Army training grounds. Abandoned access roads, obstacle courses, and U.S. Army property signage remain in these areas. The proposed alignment runs through portions of the Former Fort Ord Military Reservation, including former training areas. Therefore, there is a potential to encounter UXO's along the proposed alignment (**Appendix G**).

The identification, remediation, and disposal of hazardous waste associated with the Superfund cleanup process of former Fort Ord takes place under the Federal Facilities Agreement (City of Seaside 2017). The U.S. Army is responsible for conducting the Superfund cleanup process, and USEPA is the lead agency for regulatory enforcement and oversight of Superfund activities. The U.S. Army is also required to submit findings to CalEPA. The base closure hazardous material clearance process for various sites generally must be investigated, characterized, and remediated before disposal and before land is transferred. However, the USEPA may allow the early transfer of property on a Superfund site prior to complete remediation, if it grants deferral of a required covenant indicating that all remedial action necessary to protect human health and the environment has been taken (U.S. Army 2001). In such cases, the Army must issue and USEPA must assent to a Finding of Suitability for Early Transfer (FOSET), which determines that the property transfer will not delay environmental response actions, reuse of the property will not pose a risk to human health or the environment, and the federal government's obligation to perform all necessary remedial actions will not be affected by the early transfer.

The Army's document of record for hazardous material and site remediation is the remedial action ROD (RA-ROD). This document contains plans for engineering, level of clearance, cost analysis, community education, and site maintenance and emergency response plans. Cleaning up contaminated property is a critical part of the legal process for transferring ownership of military property. Successful reuse of the former Fort Ord base requires the Army to clean up each parcel on the base to the level required for its intended use, including residential uses, as designated by the

Fort Ord Base Reuse Plan (BRP) unless that use is in conflict with other statutes, regulations, and commitments.

d. Hazards Associated with Potential Vapor Migration

Known or suspected contaminated sites have the potential for contaminated vapor originating from a nearby site to be migrating beneath the proposed alignment. Two adjacent and one upgradient known release sites have (or have the potential to have) petroleum hydrocarbon-impacted soil or groundwater plumes located within 30 feet of the proposed alignment. Although the extent of the plumes are unknown, based on the proximity of these known or suspect petroleum hydrocarbon impacted soil and/or groundwater plumes to the proposed alignment, there is a potential for soil vapor to be migrating beneath the Northern Marina and Canyon Del Rey/SR 218 segments. In addition, several adjacent properties are reported to have on-site underground storage tanks (UST). If unauthorized releases were to occur from these USTs, there would be a potential for soil vapor to be migrating beneath the proposed alignment.

In addition, elevated levels of various volatile organic compounds (VOC) have been detected in off-base groundwater and reported to be coming from the former Fort Ord (**Appendix G**). Therefore, impacted soil vapor has the potential to be migrating beneath the Northern Marina, CSUMB Loop North, CSUMB Loop South, Northern Loop, National Monument Loop and Canyon Del Rey/SR 218 segments.

e. Hazards Associated with Adjacent Agriculture

The Trail would be adjacent to agricultural parcels used for grazing and crop production along the Northern Loop and Northern Marina segments. The CalEPA Department of Pesticide Regulations (DPR) is the state agency that sets regulatory standards for pesticides. DPR establishes regulatory practices that determine when and how a pesticide is applied. It also establishes safety precautions. Furthermore, the California Division of Occupational Safety and Health (CalOSHA) establishes workplace standards for pesticide use to protect farm workers. DPR uses “signal words” to classify pesticides that range, in order of decreasing severity, from “danger,” to “warning,” to “caution.” These classifications are based on testing the entire formulation, active and inactive ingredients, and indicate acute, short-term health hazards, such as those resulting from inhalation, eye contact, ingestion, dermal absorption, and dermal irritation. The long-term effects of exposure to some of these pesticides may be considered carcinogenic.

Agricultural lands or landscapes adjacent to or in the project corridor may have been subject to regular applications of fertilizers, pesticides, or other chemicals for maintenance. Additionally, it is possible that agricultural chemicals were used, stored, and/or mixed in or adjacent to the proposed alignment, and that chemical residues from such agricultural activities may be present in environmental media. The Northern Marina segment and Northern Loop segment are adjacent to active agricultural operations. In addition to being applied on crops in and adjacent to these two segments, pesticides are stored on agricultural properties along these segments.

f. Lead-Based Paint and Asbestos Hazards

Lead is a highly toxic metal that was used for many years as a component of consumer products. Lead is one of the most common hazards to which humans are exposed in their daily lives and may be present in hazardous concentrations in food, water, and air. Sources of lead include the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, urban dust, and secondary lead smelters. Excessive exposure can result in the accumulation of lead in the

bloodstream, soft tissues, and bones. Children are particularly susceptible to lead-related health problems as it is easily absorbed into developing systems and organs. Lead poisoning is the leading environmentally induced illness in children and continues to pose a potential public health risk.

Lead-based paint (LBP) was banned for residential and consumer use in 1978, and lead solder used in plumbing was banned in 1988. However, LBP used on older structures continues to pose a public health hazard unless and until it is abated. The use of LBP is allowed for industrial purposes and may be present on or in buildings, bridges, and structures in the project corridor. Residue from yellow thermoplastic or yellow painted traffic stripes and pavement markings, which can contain elevated concentrations of some metals, may also be present.

Structures built before 1978 are likely to contain elevated concentrations of LBP. The types of structures of concern in the vicinity of the proposed alignment include residences painted prior to 1977, bridges, barns, sheds, commercial buildings, warehouses, equipment utility sheds, and painted bridge surfaces, other painted surfaces, yellow thermoplastic or yellow painted traffic stripes, and pavement markings. Possible LBP containing features are present in all alignment segments as described in **Appendix G**.

Asbestos is composed of microscopic bundles of fibers that may become airborne when asbestos-containing materials (ACM) are damaged or disturbed. When these fibers get into the air they may be inhaled into the lungs, where they can cause significant health problems (USEPA 2017). Beginning in the late 1970s, asbestos was phased out for building and construction purposes. In December 1977, the United States Consumer Product Safety Commission restricted the use of ACMs, including patching compounds and artificial fireplace ash products. Many structures in the vicinity of the proposed alignment were constructed prior to 1989. Therefore, ACMs may be present in structures in or near the study area.

g. Hazards Associated with Aerial Deposited Lead

Aerial-deposited lead (ADL) was historically deposited by cars burning leaded gasoline and is often found in the soil adjacent to highways and roads. Elevated concentrations of ADL may be present along existing roadways, including those throughout the project corridor. Soil in the project corridor may contain concentrations of lead exceeding state regulatory thresholds, and any waste generated from the disturbance of soil in these locations may be regulated as a hazardous waste. Soil present within the project corridor is likely to be contaminated with ADL based on the proximity of several highways, as well as multiple county and city roads located in proximity to all alignment segments. A list of roadways near the study area that may contain ADL within their proximity is included in **Appendix G**.

h. Underground Utilities

A review of the Department of Conservation, Division of Oil, Gas & Geothermal Resources Online Mapping System was conducted for the project alignment. No oil or gas wells are located within one-quarter mile of the Northern Marina, Northern Loop, CSUMB Loop North, CSUMB Loop South segment, National Monument Loop or Ryan Ranch segments. One plugged, dry hole was identified within one-quarter mile of the Canyon Del Rey/SR 218 segment. There are no refined liquid product pipelines (gasoline, jet fuel, liquid gas/oil, etc.) located in the project corridor. The closest refined liquid product hazardous material pipeline is located approximately 67 miles southeast of the proposed alignment.

A review of the National Pipeline Mapping System (NPMS) online Public Map Viewer indicated that one pipeline intersects the northwestern and southwestern edge of the Marina segment and is located adjacent to the north of the western edge of the CSUMB Loop North segment (NMPS 2019). The natural gas transmission pipeline is an approximately eight-mile pipeline (pipeline ID: 12411) operated by Pacific Gas & Electric Co. (PG&E). Another natural gas transmission pipeline (pipeline ID: 8573) operated by PG&E is an approximately 15-mile pipeline that intersects the southern portion of the Northern Loop segment, portions of the CSUMB Loop North segment, the western edge of the CSUMB Loop South segment and the northwestern edge of the Canyon Del Rey/SR 218 segment.

i. Aviation Hazards

Two airports are located within five miles of the proposed alignment. The Canyon Del Rey/SR 218 segment is approximately 0.2 mile north of the Monterey Regional Airport and the Northern Marina Loop and Northern Loop segments would cross Marina Municipal Airport property (see **Figure 2-7** in **Section 2, Project Description**). The Monterey County Airport Land Use Commission adopted an Airport Land Use Compatibility Plan Update for the Monterey Regional Airport in February 2019 and an update to the plan for the Marina Municipal Airport in May 2019. These plans are intended to protect and promote the safety and welfare of residents near the public use airports in the county, as well as airport users (Monterey County 2019a). An airport influence area, defined as where current or future airport-related noise, overflight, safety, or airspace protection factors may affect land uses or necessitate restrictions on those uses as determined by an airport land use commission, has been developed for both airports. The two airports also identify safety zones associated with runway activities (Monterey County 2019a, 2019b). The Northern Marina segment would be located within the Marina Municipal Airport safety Zones 6 and 7 and the Northern Loop segment would be located within Marina Municipal Airport's safety Zones 1, 3, 6, and 7 (Monterey County 2019b). The Canyon Del Rey/SR 218 segment is located outside of the Monterey Regional Airport's safety zones and influence areas (Monterey County 2019a).

j. Common Railroad Corridor Contaminants

Some historic railroad operations involved the use of chemicals that may result in present-day contamination. The most commonly reported contamination along rail lines comes from metals, pesticides (e.g., lead arsenate), and constituents of oil or fuel (petroleum products). These chemicals have been associated with railroad operations. Arsenic in the soil along a rail right-of-way (ROW) may come from old railroad ties treated in an arsenic solution, arsenic weed-control sprays, and arsenic-laced slag used as railroad bed fill. However, arsenic is also a naturally occurring substance, so arsenic present in the soil may result partially or entirely from background concentrations. Lubricating oil and diesel that dripped from the trains are likely sources of the petroleum product contaminants found along rail lines.

Additionally, the creosote used to protect the wooden railroad ties from decay is known to contain polynuclear aromatic hydrocarbons (PAH). Some PAHs are known to be human carcinogens. With regard to the potential for creosote to leach into adjacent soil and groundwater, creosote is generally not a mobile compound. Therefore, the likelihood of creosote traveling far from a source area is considered low.

Several railways and railroad spurs are located near and along the proposed alignment. The former Southern Pacific Railroad line runs in the north-south direction west of the southern portion of Del Monte Boulevard and the northern portion of SR 1. The railroad is present in the Northern Marina,

North Loop, CSUMB Loop North, and CSUMB Loop South segments, but does not provide active rail service. Historically, the railroad was present in the Canyon Del Rey/SR 218 segment.

4.9.2 Regulatory Setting

a. Federal

United States Environmental Protection Agency

USEPA is the agency primarily responsible for enforcement and implementation of Federal laws and regulations pertaining to hazardous materials. Applicable Federal regulations pertaining to hazardous materials are contained in the CFR Titles 29, 40, and 49. Hazardous materials, as defined in the CFR, are listed in 49 CFR 172.101. The following laws govern the management of hazardous materials:

- Resource Conservation and Recovery Act of 1976 (42 UUSC 6901 et seq.)
- Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (also called the Superfund Act) (42 USC 9601 et seq.), as amended by the Superfund Amendments and Reauthorization Act (SARA) (1986)
- Federal Insecticide, Fungicide, and Rodenticide Act (7 USC 136 et seq.)
- Toxic Substances Control Act (15 USC 2601 et seq.)

These laws and associated regulations include specific requirements for facilities that generate, use, store, treat, and/or dispose of hazardous materials. USEPA provides oversight and supervision for Federal Superfund investigation/remediation projects, evaluates remediation technologies, and develops hazardous materials disposal restrictions and treatment standards.

The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976

These acts established a program administered by the USEPA for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. The Resource Conservation and Recovery Act (RCRA) was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the “cradle to grave” system of regulating hazardous wastes and waste generation. Among other things, the use of certain techniques for the disposal of some hazardous wastes was prohibited specifically by Hazardous and Solid Waste Act.

The Comprehensive Environmental Response, Compensation and Liability Act (enacted 1980), amended by the Superfund Amendments and Reauthorization Act (1986)

This law provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Among other things, Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) established requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous substances at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified. CERCLA also enabled revision of the National Contingency Plan, which provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The

National Contingency Plan also established the National Priorities List and in compliance with CERCLA, the U.S. Department of Defense conducts environmental restoration activities. In 2001, the Department of Defense established the Military Munitions Response Programs to address sites that are known or suspected to contain exploded ordnance, discarded military munitions, or munitions constituents (U.S. Department of Defense 2019).

U.S. Department of Transportation Hazardous Materials Transport Act (49 USC 5101)

The U.S. Department of Transportation, in conjunction with the USEPA, is responsible for enforcement and implementation of Federal laws and regulations pertaining to transportation of hazardous materials. The Hazardous Materials Transportation Act directs the U.S. Department of Transportation to establish criteria and regulations regarding the safe storage and transportation of hazardous materials. Code of Federal Regulations (CFR) 49, 171–180 and Title 13 California Code of Regulations, regulates the transportation of hazardous materials, types of material defined as hazardous, and the marking of vehicles transporting hazardous materials. It requires that every employee who transports hazardous materials receive training to recognize and identify hazardous materials and become familiar with hazard materials requirements. Carriers are required to report accidental releases of hazardous materials to the U.S. Department of Transportation at the earliest practical moment. Other incidents that must be reported include deaths, injuries requiring hospitalization, and property damage exceeding \$50,000. The California Highway Patrol and California Department of Transportation (Caltrans) are the state agencies with primary responsibility for enforcing federal and state regulations related to transportation within California. These agencies respond to hazardous materials transportation emergencies. Together, these agencies determine container types to be used and grant licenses to hazardous waste haulers for hazardous waste transportation on public roads.

The Federal Insecticide, Fungicide, and Rodenticide Act

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (7 USC 136 et seq.) provides federal control of pesticide distribution, sale, and use. USEPA was given authority under FIFRA to study the consequences of pesticide usage and to require users (farmers, utility companies, and others) to register when purchasing pesticides. Later amendments to the law required users to take exams for certification as applicators of pesticides. All pesticides used in the U.S. must be registered (licensed) by USEPA. Registration assures that pesticides will be properly labeled and that, if used in accordance with specifications, they will not cause unreasonable harm to the environment.

Lead-Based Paint Regulations

Regulations for LBP are contained in the Lead-Based Paint Elimination Final Rule, 24 CFR 33, governed by the U.S. Housing and Urban Development, which requires sellers and lessors to disclose known LBP and LBP hazards to perspective purchasers and lessees. Additionally, all LBP abatement activities must be in compliance with California Occupational Safety and Health Administration (Cal/OSHA), Federal OSHA, and with the State of California Department of Health Services requirements. Only LBP-trained and -certified abatement personnel are allowed to perform abatement activities. All LBP removed from structures must be hauled and disposed of by a transportation company licensed to transport this type of material at a landfill or receiving facility licensed to accept the waste.

Regulations to manage and control exposure to LBP are also described in CFR Title 29, Section 1926.62 and California Code of Regulations Title 8 Section 1532.1. These regulations cover the demolition, removal, cleanup, transportation, storage, and disposal of lead-containing material. The regulations outline the permissible exposure limit, protective measures, monitoring, and compliance to ensure the safety of construction workers exposed to lead-based materials. Cal/OSHA's Lead in Construction Standard requires project proponents to develop and implement a lead compliance plan when LBP would be disturbed during construction. The plan must describe activities that could emit lead, methods for complying with the standard, safe work practices, and a plan to protect workers from exposure to lead during construction activities. Cal/OSHA requires 24-hour notification if more than 100 square feet of LBP would be disturbed.

Asbestos Regulations

USEPA regulations under Title 40 CFR Part 61 regulate the removal and handling of ACMs. The statute is implemented by the Monterey Bay Air Resources District (MBARD). The federal OSHA also has a survey requirement under Title 29 CFR that is implemented by Cal/OSHA under Title 8 California Code Regulations. These regulations require facilities to take all necessary precautions to protect employees and the public from exposure to asbestos.

The MBARD Asbestos Program regulates the handling of asbestos and operates as a cradle to grave basis through the regulation of all aspects related to the handling of asbestos materials from discovery through removal, transportation, and disposal. The Asbestos Program is in place to protect the public from uncontrolled emissions of asbestos through enforcement of the federal Asbestos Standard and Air District Rule 424 (MBARD 2008). The Program covers most renovation and demolition projects in the North Central Coast Air Basin. Elements of the Program include survey and notification requirements prior to beginning a project, work practice standards, and disposal requirements. The Program operates on a cradle-to-grave basis as it regulates all aspects related to handling ACMs from discovery and removal, through transportation and disposal.

b. State

Department of Toxic Substances Control

As a department of the CalEPA, DTSC is the primary agency in California that regulates hazardous waste, oversees the cleanup of existing contamination, and identifies ways to reduce hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of RCRA and the California Health and Safety Code.

DTSC also administers the California Hazardous Waste Control Law to regulate hazardous wastes. While the California Hazardous Waste Control Law is generally more stringent than RCRA, until the USEPA approves the California program, both State and Federal laws apply in California. The California Hazardous Waste Control Law lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

Government Code Section 65962.5 requires the DTSC, the State Department of Health Services, the State Water Resources Control Board, and CalRecycle to compile and annually update lists of hazardous waste sites and land designated as hazardous waste sites throughout the state. The Secretary for Environmental Protection consolidates the information submitted by these agencies

and distributes it to each city and county where sites on the lists are located. Before the lead agency accepts an application for any development project as complete, the applicant must consult these lists to determine if the site at issue is included.

If any soil is excavated from a site containing hazardous materials, it would be considered a hazardous waste if it exceeded specific criteria identified by the DTSC in Title 22, Division 4.5 Section 66261.10, of the California Code of Regulations. Remediation of hazardous wastes found at a site may be required if excavation of these materials is performed, or if certain other soil disturbing activities would occur. Even if soil or groundwater at a contaminated site does not have the characteristics required to be defined as hazardous waste, remediation of the site may be required by regulatory agencies subject to jurisdictional authority. Cleanup requirements are determined on a case-by-case basis by the agency taking jurisdiction.

Cal/Occupational Safety and Health Act

The Occupational Safety and Health Act of 1970 (Title 8 CCR) is implemented by the Cal/OSHA, which is responsible for ensuring worker safety in the handling and use of chemicals in the workplace. In California, Cal/OSHA has primary responsibility to develop and enforce workplace safety regulations concerning the use of hazardous materials in the workplace, including requirements for employee safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. For example, under Title 8 CCR 5194 (Hazard Communication Standard), construction workers must be informed about hazardous substances that may be encountered. Compliance with Injury Illness Prevention Program requirements (Title 8 CCR 3203) would ensure that workers are properly trained to recognize workplace hazards and to take appropriate steps to reduce potential risks due to such hazards. This would be relevant if previously unidentified contamination or buried hazards are encountered. If additional investigation or remediation is determined to be necessary, compliance with Cal/OSHA standards for hazardous waste operations (Title 8 CCR 5192) would be required for those individuals involved in the investigation or cleanup work. A Site Health and Safety Plan must be prepared prior to commencing any work at a contaminated site or involving disturbance of building materials containing hazardous substances, to protect workers from exposure to potential hazards. Cal/OSHA also enforces hazard communication program regulations, including procedures for identifying and labeling hazardous substances. It requires Material Safety Data Sheets to be available for employee information and training programs.

c. Regional

1997 Fort Ord Reuse Authority Base Reuse Plan

FORA adopted the Base Reuse Plan in June 1997, and a revised version of the Plan was published in digital format in September 2001 and March 2018, incorporating various corrections and errata. Hazards goals, policies, and programs are provided in the Base Reuse Plan Safety Element specific to Monterey County and the cities of Marina and Seaside (FORA 2012). For example, Policy C-1 is for each of the three jurisdictions to develop emergency preparedness and management plans and Policy A-1 is for each of the jurisdictions to monitor and report to the public all progress made on remedial actions and records of determination.

Monterey County Environmental Health Bureau

Monterey County's Environmental Health Bureau, Hazardous Materials Management Services is designated as the local Certified Unified Program Agency. This agency is responsible for inspecting facilities in the County to verify proper storage, handling, and disposal of hazardous materials and hazardous wastes. The Hazardous Materials Management Services administers programs for Hazardous Materials Business Plans, hazardous waste generator requirements, underground storage tanks, aboveground petroleum storage, prevention of accidental releases (California Accidental Release Prevention program), and hazardous materials management plans.

Airport Land Use Compatibility Plans

The Section 65302.3 of the Government Code requires general plans and applicable specific plans to be consistent with amended Comprehensive Airport Land Use Plans. The Monterey County Airport Land Use Commission has adopted such plans for two airports in the vicinity of the project corridor: Marina Municipal Airport and Monterey Regional Airport.

d. Local

Monterey County

Monterey County General Plan

Chapter 4, Safety Element, of the Monterey County General Plan (2010) establishes policies and programs to protect the public from risks associated with hazards, including toxic chemical and other hazardous materials. The leading users of toxic chemicals in Monterey County include agriculture, hospitals, industry, laboratories, and utilities. However, there are no specific goals or policies pertaining specifically to hazardous materials.

Monterey County Code

Section 10.65.050 of the Monterey County Code requires hazardous material registration for any person who owns or operates an establishment that contains hazardous materials. In addition, per Section 10.6.050(D) any person who uses or handles a hazardous material must annual submit a completed registration form to the County Health Officer by January 1st of each year.

City of Marina

City of Marina General Plan

The Public Health and Safety section of the Marina General Plan includes goals and policies to address hazardous materials in the City. Specifically, Goal 4.103 is to protect the public from health threats posed by hazardous materials through policies requiring discretionary review and approval of all commercial and industrial uses that generate more than 27 gallons of hazardous wastes, ensuring that industrial and commercial uses that generate hazardous waste are compatible with surrounding land uses, and supporting all local, regional, and state efforts to prevent and avoid environmental contamination due to release of hazardous substances (City of Marina 2010).

City of Marina Municipal Code

City of Marina Municipal Code Chapter 8.12, Hazardous Materials Storage and Registration, regulates hazardous materials in the City. Section 8.12.050 requires hazardous materials registration for any person who owns or operates an establishment that contains hazardous materials. The registration includes a list of all hazardous materials, where the hazardous materials are stored, and disclosure of any laboratory on the site.

City of Seaside

City of Seaside General Plan

The current City of Seaside General Plan was adopted by City Council Resolution 04-59 on August 5, 2004. Hazards and Hazardous Materials are addressed in the Safety Element. The goals, policies, and implementation plans include protecting the community from public safety hazards related to human activities, including minimizing public health risks and environmental risks from the use, transport, storage, and disposal of hazardous materials, and implementing Superfund clean-up activities to eliminate the environmental hazards associated with past military activities at the former Fort Ord.

The Safety Element of *Draft Seaside 2040* would, upon adoption by the City Council, establish updated policies to ensure safe and effective remediation of hazardous materials, promote effective emergency response, and minimize fire risks in Seaside (Goal S-6). *Draft Seaside 2040* policies include minimizing risk, continued cooperation with regulatory agencies for hazardous materials, and cleanup of existing hazardous sites.

City of Seaside Municipal Code

The Seaside Municipal Code incorporates the California Fire Code and California Building Code standards and Chapter 8.50, Hazardous Materials Registrations, establishes procedures for registering hazardous materials with the department of health.

City of Monterey

City of Monterey General Plan

The Safety Element of the City of Monterey General Plan (2016) identifies potential hazards in the City and includes goals and policies to reduce those hazards. Goal g. of the General Plan is to review all applications for discretionary projects to evaluate proposed uses of hazardous materials. The Goal also requires that projects that propose the use, handling, storage, transportation, and/or disposal of hazardous materials incorporate actions to minimize hazards to public health. There are no supporting policies pertaining to hazardous materials.

City of Monterey Municipal Code

Chapter 38, Article 19 of the City of Monterey Municipal Code, Hazardous Materials Storage, ensures that the use, handling, storage and transport of hazardous substances complies with all applicable requirements of the California Health and Safety Code and that the City is notified of emergency response plans, unauthorized releases of hazardous substances, and any substantial changes in facilities or operations that could affect the public health, safety or welfare. Section 38-129 requires a permit for the manufacturing, storing, handling, or processing hazardous substances

in sufficient quantities and Section 38-130 requires all business in Monterey to prepare hazardous materials release response plans.

City of Del Rey Oaks

City of Del Rey Oaks General Plan

The Hazards section of the General Plan identifies areas subject to natural or manmade hazards. The City of Del Rey Oaks General Plan Safety Element identifies potential hazards and provides policies, programs, and standards to protect people and property (City of Del Rey Oaks 1997).

4.9.3 Methodology and Significance Thresholds

Methodology

This section describes the potential environmental impacts of the proposed FORTAG project and all FORTAG design options relevant to hazards and hazardous materials. As described in **Section 4.9.1, Existing Setting**, a Phase I ESA including site reconnaissance was completed for the project corridor to identify features, historical uses, or activities that could be associated with environmental impairment of soil and groundwater along the proposed alignment (**Appendix G**). The Phase I ESA included review of historical topographical maps, historical aerial photographs, and publicly maintained and available records pertaining to on-site and nearby environmental investigations, chemical usage, and the possible presence of USTs. The results of this report were analyzed to identify release listings near the project corridor that could pose a potential threat from excavation and grading activities during project construction or risks of long-term exposure for recreational Trail users. Assessment of impacts is based on the results of the Phase I ESA.

Significance Thresholds

This section describes the environmental impacts of the proposed FORTAG project relevant to hazards and hazardous materials. The impact analysis is based on an assessment of baseline conditions for the project corridor, including locations of hazardous materials use and storage, existing contaminated sites, air traffic hazards, and emergency response and evacuation plan requirements. This analysis identifies impacts based on the predicted interaction between the affected environment and construction, operation, and maintenance activities related to the development that would occur as part of FORTAG.

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
2. 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. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed K-12 school
4. 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, create a significant hazard to the public or the environment

5. 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, result in a safety hazard or excessive noise for people residing or working in the project area
6. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan
7. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires

Significance threshold 7 is analyzed in **Section 4.17, Wildfire**, and is not discussed further.

Significance threshold 1 should be understood against the backdrop of the California Supreme Court's decision in *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369, 377 ("*CBIA I*"). In that case, the court held that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents." But the court did not hold that CEQA never requires consideration of the effects of existing environmental conditions on the future occupants or users of a proposed project: "when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project's impact on the environment—and not the environment's impact on the project—that compels an evaluation of how future residents or users could be affected by exacerbated conditions." (*Id.* at pp. 377-378, italics added.) When the case was remanded from the Supreme Court down to the Court of Appeal, the latter body noted that, for a public project, a lead agency could choose to disregard these limitations on the scope of CEQA analysis, and could voluntarily address the effects of preexisting environmental hazards of project users. (*California Building Industry Association v. Bay Area Air Quality Management District* (2016) 2 Cal.App.5th 1067, 1082-1083 (*CBIA II*).

In light of the *CBIA I* decision, TAMC is not required by CEQA to address the extent to adjacent agricultural operations could affect future Trail users. Even so, TAMC believes that such issues are important from a public policy standpoint, and has addressed them for that reason. Thus, readers should treat the discussions below of impacts on future Trail users from existing agricultural operations as being beyond the scope of CEQA, and provided to the public on a voluntary basis in the interests of full disclosure.

4.9.4 Project Impact Analysis

<p>Threshold 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> <p>Threshold 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>

Impact HAZ-1 IMPLEMENTATION OF THE PROJECT MAY CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT THROUGH THE ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS SPECIFICALLY RELATED TO AGRICULTURE. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

Construction and Operational Hazards

Possible LBP, ADL, PCBs, and ACM containing features are present in the project corridor. Each of these hazardous materials is discussed below.

Lead Based Paint

LBP was banned in 1988, but its use is still allowed for industrial purposes. LBP may be present on or in buildings, bridges, and structures near the proposed alignment including those near the CSUMB Loop North, CSUMB Loop South, and Canyon Del Rey/SR 218 segments. Additionally, residue from yellow thermoplastic or yellow painted traffic stripes and pavement markings, which can contain elevated concentrations of some metals, may also be present. The types of structures of concern in the vicinity of the proposed alignment include residences painted prior to 1977, bridges, barns, sheds, commercial buildings, warehouses, equipment utility sheds, and painted bridge surfaces, other painted surfaces, yellow thermoplastic or yellow painted traffic stripes, and pavement markings.

Exposure to lead can cause adverse health effects, including disturbance of the gastrointestinal system, anemia, kidney disease, and neuromuscular and neurological dysfunction (in severe cases). Construction workers may be exposed to LBP during removal of yellow thermoplastic or yellow painted traffic stripes to restripe roadways or while restriping existing overcrossings that would be used for the proposed alignment.

LBP and other lead-containing materials associated with the project would be handled in compliance with Cal/OSHA regulations regarding LBPs and materials. The California Code of Regulations, Section 1532.1, requires testing, monitoring, containment, and disposal of LBPs and materials, such that exposure levels do not exceed Cal/OSHA standards. The project does not include removal of any existing buildings or structures. Therefore, construction workers would not be exposed to LBP from demolition. However, exposure to LBP could still occur during restriping when yellow thermoplastic or yellow painted traffic stripes. Adherence to existing regulations, such as Cal/OSHA regulations for handling such materials, would reduce impacts to less than significant.

Polychlorinated Biphenyls

Fluorescent lighting ballasts manufactured prior to 1978, and electrical transformers, capacitors, and generators manufactured prior to 1977, may contain PCBs. Several pole- and pad-mounted transformers are located near the proposed alignment. However, no indications of releases were observed near the transformers during the Phase I ESA site visit (**Appendix G**). In accordance with

the Toxic Substances Control Act and other Federal and State regulations, the implementing entity for each Trail segment would be required to properly handle and dispose of electrical equipment and lighting ballasts that may contain PCBs, such as pole-mounted transformers in the project corridor. However, the project would avoid modifying or relocating above-ground utilities where feasible. The impact related to PCBs would be less than significant.

Asbestos Containing Materials

Friable ACMs are regulated as a hazardous air pollutant under the Clean Air Act. As a worker safety hazard, they are regulated under the authority of Cal/OSHA and by MBARD. Many structures in the vicinity of the proposed alignment were constructed prior to 1989, particularly along the CSUMB Loop North, CSUMB Loop South, and Canyon Del Rey/SR 218 segments. The project does not include removal of any existing buildings or structures. Therefore, construction workers would not be exposed to ACMs from demolition. The MBARD Asbestos Program regulates the handling of asbestos and operates as a cradle to grave basis through the regulation of all aspects related to the handling of asbestos materials from discovery through removal, through transportation and disposal. These programs would ensure that any asbestos removal would not result in the release of hazardous materials to the environment that could impair human health. Therefore, the impact related to ACMs would be less than significant.

Other Hazardous Materials

FORTAG is a recreational trail project and would not introduce any new residents or workers who would utilize, store, and dispose of hazardous materials. However, construction of the proposed alignment would involve the routine use, storage, and disposal of hazardous materials. Project construction would include the use of construction machinery that would involve the transport, use, and disposal of hazardous materials such as paints, solvents, oils, and grease. Additionally, hazardous materials would be needed for fueling and servicing construction equipment along the project corridor. These types of hazardous materials are not acutely hazardous, and all storage, handling, use, and disposal of these materials are regulated by County, state, and federal regulations.

The U.S. Department of Transportation's Office of Hazardous Materials Safety prescribes strict regulations for the safe transportation of hazardous materials, as described in CFR Title 49, and implemented by Title 13 of the CCR. The transport of hazardous materials during construction can result in accidental spills, leaks, toxic releases, fire, or explosion. However, appropriate documentation for all hazardous waste transported in connection with FORTAG activities would be provided as required for compliance with existing hazardous materials regulations codified in Titles 8, 22, and 26 of the California Code of Regulations, and their enabling legislation set forth in Chapter 6.95 of the California Health and Safety Code.

For those employees that would work with hazardous materials during construction, the amounts of hazardous materials that are handled at any one time are generally relatively small, reducing the potential consequences of an accident during handling. Further, construction activities would be required to comply with federal and state laws to eliminate or reduce the consequence of hazardous materials accidents. For example, employees who would work around hazardous materials would be required to wear appropriate protective equipment, and safety equipment is routinely available in all areas where hazardous materials are used.

Compliance with applicable regulations would ensure that risks from routine use, transport, handling, storage, disposal, and release of hazardous materials would be minimized and any

accidental spills would be properly handled and remediated. Oversight by the appropriate federal, state, and local agencies and compliance with applicable regulations related to the handling and storage of hazardous materials would minimize the risk of potential exposure to these substances. Therefore, impacts from a hazard to the public or the environment through routine transport, use or disposal of hazardous materials or from reasonably foreseeable upset and accident conditions would be less than significant.

Agricultural Hazards

The Northern Marina and Northern Loop segments are located adjacent to active agricultural operations that use pesticides and other hazardous chemicals routinely for agricultural operations. Therefore, Trail users and maintenance personnel could be exposed to these hazardous materials during and after their application on adjacent properties. Although, as discussed above, the *CBIA I* decision holds that concerns of this kind are outside the scope of CEQA, TAMC has chosen to address these concerns in any event, due to their importance, as permitted for a public project by *CBIA II*.

As discussed in **Section 4.2, Agriculture and Forestry Resources**, Pesticide Use Records for Monterey County from 2018 were obtained from the Agricultural Commissioner's office (Monterey County Agricultural Commissioner 2019). These records show that pesticides were applied 541,957 times in 2018 throughout the County. Approximately 84 percent of applications were ground applications, approximately 17 percent were air applications, and less than one percent were fumigant applications.

Construction workers, Trail users, and maintenance personnel could be exposed to agricultural chemicals through ingestion, inhalation, and dermal contact. The most likely paths of exposure are ingestion and inhalation of the chemicals during and after they are applied to crops on adjacent properties. Each chemical has a certain "breakdown period," which is the time it takes for the chemical to dissipate. Regulations for some chemicals do not permit any human contact with the area sprayed until the chemical has dissipated down to acceptable levels. The re-entry periods (i.e., the period of time after which a person may re-enter the area in which the chemical was applied) following application of the chemical are specified on the chemical label and by regulation. The Monterey County Agricultural Commissioner's office requires that pesticide users strictly adhere to the chemical label and other applicable regulations.

Fumigation applications involve an injection of pesticide gas or vapor into the soil. Fumigants used in Monterey County in 2018 included Tri-Chlor Fumigant, Tri-Chlor EC Fumigant, Tri-Form 80, K-Pam HL, and Telone II. Exposure to these pesticides can present human health risks (EPA 2017). Pesticide drift from fumigation application can transfer pesticides off-site as droplets, dust, or vapors, leading to accidental exposure. Therefore, Trail users or maintenance personnel on the Northern Marina and Northern Loop segments could be exposed to restricted-use pesticides when on the Trail, if applied in the adjacent farmland.

For non-fumigant pesticides, the risk of exposure for Trail users and maintenance personnel would result primarily due to dermal skin contact or ingestion. This assessment assumes that soil containing pesticides and other hazardous chemicals is exposed, and that these chemicals in the soil are 100 percent bioavailable (i.e., the fraction of the chemical that is available for absorption into the body). Because the potential exists for Trail users to trespass onto agricultural property adjacent to the Northern Marina and Northern Loop segments after pesticides have been applied, Trail users could become exposed to potentially dangerous chemicals.

Exposure to pesticides could result in a variety of deleterious health effects. Although some of the more hazardous or toxic pesticides, such as DDT and methyl bromide, are not used currently near the project corridor or have been phased out of manufacturing and use in the U.S., some of these pesticides and their byproducts bind strongly to soils and can remain in some soils possibly for hundreds of years. As a result, the historical use of these chemicals presents the potential for Trail users and maintenance personnel to become exposed to hazardous chemicals contained in shallow soils.

Mitigation measures included in **Section 4.2, Agricultural and Forestry Resources**, would reduce pesticide exposure for Trail users. **Mitigation Measure AG-4(a)** would require staging away from agriculture and limited construction during peak harvest periods for construction activities within proximity to agricultural operations. Therefore, **Mitigation Measure AG-4(a)** would reduce pesticide exposure for construction personnel. Per **Mitigation Measure AG-4(b)** as included in **Section 4.2, Agricultural and Forestry Resources**, “No Trespassing” notices would be posted at key locations near agricultural operations that would state the legal ramifications for trespassing on adjacent agricultural properties. In addition, **Mitigation Measure AG-4(b)** would require fencing along the Trail where it is adjacent to agricultural fields.

In addition to the above design features and mitigation measures, numerous federal, state, and local regulations regarding the use, transportation, and disposal of hazardous materials would be applied to the project. Compliance with applicable federal, state, and local regulations would reduce exposure hazards from adjacent agricultural operations. For example, FIFRA Section 19 prohibits the storage or disposal of suspended or cancelled pesticides, ensuring that neighboring agricultural properties do not apply pesticides that could pose a greater risk to Trail users than is currently anticipated. Moreover, FIFRA is the underlying federal statute that ensures that states and tribes monitor pesticide and enforce regulations, certify private pesticide applicators who use restricted use pesticides, and conduct marketplace and pesticide producing establishment inspections on behalf of USEPA to assure label and product integrity (USEPA 2015). Lastly, DPR monitors the production, sale, and use of pesticides conducts health risk assessments and investigations pertaining to reported illnesses.

Impacts would be less than significant with mitigation. Implementation of **Mitigation Measures AG-4(a) and AG-3(b)** in **Section 4.2, Agricultural and Forestry Resources**, would reduce the impact of exposing Trail users and maintenance personnel to pesticides and other agricultural chemicals during and after their application on adjacent properties to a less than significant level.

Mitigation Measures

AG-4(a) Implement Measures to Reduce Construction-Related Conflicts with Agricultural Operations

Mitigation Measures AG-4(a) text is included in **Section 4.2, Agricultural and Forestry Resources**, under Impact AG-4.

AG-4(b) Install No Trespassing Signs and Fencing Prior to Operation

Mitigation Measures AG-4(b) text is included in **Section 4.2, Agricultural and Forestry Resources**, under **Impact AG-4**.

Significance After Mitigation

This impact would be less than significant with mitigation.

Threshold 3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

Impact HAZ-2 THE PROJECT WOULD NOT EMIT HAZARDOUS EMISSIONS OR HANDLE HAZARDOUS OR ACUTELY HAZARDOUS MATERIALS, SUBSTANCES, OR WASTE WITHIN ONE-QUARTER MILE OF AN EXISTING OR PROPOSED SCHOOL SERVING CHILDREN BETWEEN KINDERGARTEN AND 12TH GRADE. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Schools located within one-quarter mile of the proposed alignment serving children between kindergarten and 12th grade include Del Rey Woods Elementary School, adjacent to the Canyon Del Rey/SR 218 segment along Plumas Avenue; Martin Luther King Junior School of the Arts and International School of Monterey, both 0.2 mile west of the National Monument Loop segment; and Chartwell School, approximately 0.1 mile west of the National Monument Loop segment. A new Monterey Bay Charter School that would serve kindergarten through 8th grade students is proposed at the intersection of 6th Avenue and Colonel Durham Street. This proposed charter school would be located approximately 0.15 mile south of the CSUMB Loop South segment. In addition, the proposed alignment crosses through the CSUMB campus for both the CSUMB Loop North and CSUMB South segments.

As discussed under **Impact HAZ-1**, Trail operation would not result in substantial exposure to hazardous emissions because proposed Trail uses would not use hazardous materials. The amounts of hazardous materials used during Trail construction would be relatively small. Construction activities would occur along the proposed alignment but would not be located within one-quarter mile of a school for a prolonged period of time. Because the project is a linear trail, construction activities including equipment that may emit hazardous emissions would move along the alignment as sections of the Trail are completed. Further, construction activities would be required to comply with federal and state laws to eliminate or reduce the consequence of hazardous materials accidents, such as California Code of Regulations, Section 1532.1, requiring testing, monitoring, containment, and disposal of hazardous materials. Therefore, construction and operation of FORTAG would not result in substantial exposure to hazardous emissions, materials, substances, or waste with adherence to applicable regulations. The impact from exposure of existing and proposed schools to such hazardous materials would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 4: Would the project be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Impact HAZ-3 GROUND DISTURBANCE DURING PROJECT CONSTRUCTION COULD RELEASE EXISTING SOIL CONTAMINANTS AND EXPOSE CONSTRUCTION PERSONNEL AND THE PUBLIC TO HEALTH HAZARDS. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

Tables 1.1 through 1.6 of Appendix G include a list of hazardous material sites for each proposed segment. Hazardous material sites in the project corridor include remnant hazardous materials from military uses at the former Fort Ord and a federal Superfund cleanup site, which is a result of former firing range activities at the former Fort Ord. Explosives are listed as the potential contamination of concern in the former Fort Ord, possibly affecting on-site soil. Based on research conducted as part of the Phase I ESA, eleven (11) hazardous material sites were identified that have potential to impact the proposed alignment. Potential hazardous sites are summarized below.

Fort Ord Military Reservation and Training Areas

The proposed alignment passes through the former Fort Ord Military Reservation and associated training areas. Elevated levels of contaminants, including a variety of VOCs, have been detected in soil and groundwater. Fort Ord is currently participating in a Department of Defense program to identify, investigate and clean up contamination from former on-site activities. The soil is reported to be contaminated with UXOs, as well as the presence of these materials themselves. In addition, based on the former use of the property as a fire drill area (in the vicinity of the Northern Marina segment), there is also a potential for per- and polyfluoroalkyl substances (PFAS) to be in the groundwater beneath the proposed alignment. The following segments pass through the former Fort Ord military reservation and training areas: Northern Marina, Northern Loop, CSUMB Loop North, CSUMB Loop South, National Monument Loop, Canyon Del Rey/SR 218.

Trail users could be exposed to UXOs if they stray from the proposed alignment in areas that pass through the former Fort Ord. However, areas where UXOs may be present are posted with danger signs and are identified as do not enter areas. FORA also offers free UXO recognition and safety training that would be accessible to all Trail users. Construction personnel working along the Northern Marina, Northern Loop, CSUMB Loop North, CSUMB Loop South, National Monument Loop, Canyon Del Rey/SR 218 segments may be exposed to soil contaminated associated with UXOs and VOCs during earth disturbing activities or PFAS during dewatering when grading for proposed overcrossings. Ground disturbance in areas of contamination could expose people to health risks including noise and throat irritation, headaches, nausea or organ damage from extended exposure. **Mitigation Measures HAZ-3(a) and HAZ-3(b)** would require additional subsurface assessment and remediation in areas with high risk of VOCs, UXOs, and PFAS. Impacts would be reduced to a less than significant level.

Known Release Sites

The Canyon Del Rey/SR 218 segment is located near a release site with groundwater contamination and immediately adjacent to a property with known residual soil and groundwater contamination. Although the case is closed, no closure documentation is available. The depth of ground disturbance and excavation for FORTAG would be 12 inches throughout the alignment. This depth of ground disturbance could expose Trail users to groundwater and soil contamination that may lead to health impacts. Because there is no closure documentation available the extent of the contamination and

potential exposure is unknown. **Mitigation Measure HAZ-3(c)** would require additional records search of the sites to determine potential impacts. Impacts would be reduced to potentially significant.

If impacted materials are present with the project corridor, or are suspected to be within the project corridor, **Mitigation Measures HAZ-3(a)** and **HAZ-3(b)** would require additional subsurface assessment and remediation in areas with high risk of VOCs, UXOs, and PFAS. Impacts would be reduced to a less than significant level.

Aboveground Storage Tanks

One diesel AST was observed in the project corridor adjacent to the Northern Maria segment. No unauthorized releases have been reported from the AST and the AST would not be disturbed during construction of the project. Therefore, Trail users would not be affected by the diesel AST, and impacts would be less than significant.

Railroad Contaminants

Former rail use in the project corridor could pose a hazard during soil disturbing activities during construction. Railroad lines are located in the vicinity of the Northern Marina, CSUMB Loop North, and CSUMB Loop South segments. In addition, historical sources indicate that railroad tracks were formerly located in the vicinity of the western portion of the Canyon Del Rey/SR 218 segment. Construction personnel could be exposed to contaminants common in railway corridors including petroleum hydrocarbons, pesticides/herbicides, polycyclic aromatic hydrocarbons, and heavy metals, including arsenic and lead during soil disturbing activities as part of project construction. In addition, unused/abandoned railroad ties/timbers may also remain in the project corridor and would require special handling and disposal during construction because they are often dipped in arsenic solution which may leak into the soil. Therefore, construction workers would be exposed to potential health hazards when working near the railroad lines. **Mitigation Measure HAZ-3(a)** and **HAZ-3(b)** would require additional subsurface assessment and remediation. Impacts would be reduced to a less than significant level.

Aerial-deposited Lead

Elevated concentrations of ADL may be present along existing roadways, including those throughout the project corridor. Soil in the project corridor may contain concentrations of lead exceeding state regulatory thresholds, and any waste generated from the disturbance of soil in these locations may be regulated as a hazardous waste. The proposed alignment passes through or is located in the vicinity of several major roads and highways, including SR 1 and SR 218. In these areas, there is the potential for ADL to be located in onsite soils. **Mitigation Measures HAZ-3(a)** and **HAZ-3(b)**, would require ADL subsurface assessment and remediation where the proposed alignment passes through or is located in the vicinity of major roads and highways, as listed on **Appendix G** (page 25). Impacts would be reduced to a less than significant level.

Agricultural Land Use

Agricultural lands or landscapes adjacent to or within the project corridor may have been subject to regular applications of fertilizers, pesticides, or other chemicals for maintenance. Additionally, it is possible that agricultural chemicals were used, stored and/or mixed in or adjacent to the proposed alignment, and that chemical residues from such agricultural activities may be present in environmental media. Former and current agricultural land use is located in the project corridor

along the Northern Marina and Northern Loop segments. In these areas, there is the potential for pesticides or other agricultural chemicals to present in soils along the proposed alignment.

Mitigation Measures HAZ-3(a) and **HAZ-3(b)** would require agricultural subsurface assessment and remediation where the proposed alignment passes through or is in the vicinity of former or current agricultural lands, in the Northern Marina and Northern Loop segments. Impacts would be significant but mitigable.

Mitigation Measures

HAZ-3(a) Conduct Soil Sampling and Implement Necessary Remediation

This mitigation measure applies to all segments of the Trail within the vicinity of former Fort Ord firing ranges, including the Fort Ord OU1 (off-site plum) area, in the vicinity of existing and former railroad tracks, in the vicinity of major roads and highways, in current and former agricultural areas, and in the vicinity of the following roadways: Beach Road, Del Monte Boulevard, Charles Benson Road (Northern Marina segment), Reservation Road, Inter-Garrison Road, Blanco Road (Northern Loop segment), 8th Street, California Drive, Imjin Parkway, Imjin Road, Engineering Equipment Road (CSUMB Loop North segment), Divarty Street (CSUMB Loop South segment), General Jim Moore Boulevard, 8th Avenue, Parker Flats Cut Off Road (National Monument Loop segment), Del Monte Avenue, Highway 218, General Jim Moore Boulevard (Canyon Del Rey/SR 218 Segment) and South Boundary Road (Ryan Ranch segment). In these areas, prior to project construction, implementing entities shall conduct a Supplemental Soils Investigation. The Soil Sample Investigation shall include soil sampling at selected locations along the Northern Marina, Northern Loop, CSUMB Loop North, CSUMB Loop South, National Monument Loop, Canyon Del Rey/SR 218, and Ryan Ranch segments under the supervision of a professional geologist or professional civil engineer. Soil samples shall identify the concentrations of anticipated contaminants which may include, but are not limited to: VOCs, PFAS, aerial-deposited lead, organochlorine pesticides, polycyclic aromatic hydrocarbons, total petroleum hydrocarbons, volatile organic compounds, semi-volatile organic compounds and arsenic.

The implementing entity shall coordinate with the Monterey County's Environmental Health Bureau to develop and implement a program to remediate or manage known contaminated soil during construction. If necessary, any additional information gathered from the Supplemental Soil Investigation shall be used to identify locations along the project corridor that may require remedial action in order to prevent exposure of construction workers, maintenance personnel, and Trail users to these contaminants. The environmental data collected shall also be used to identify the appropriate disposal options for those soils or demolished materials that require off-site disposal.

Disposal shall occur at an appropriate facility licensed to handle such contaminants and remedial excavation shall proceed under the supervision of an environmental consultant licensed to oversee such remediation. Where possible, potentially contaminated soils shall be stockpiled and characterized to determine the appropriate means and location for proper disposal. The remediation/disposal program shall be approved by the Monterey County Environmental Health Bureau. The implementing entity shall submit any required correspondence to Monterey County Environmental Health Bureau prior to issuance of grading permits. All proper waste handling and disposal procedures shall be followed in accordance with applicable DTSC and CalOSHA regulations. Upon completion of the Supplemental Site Investigation, the implementing entity shall prepare a report presenting the findings of the additional assessment. The report shall include figures depicting the boring locations, summary tables of analytical data, conclusions, and recommendations.

HAZ-3(b) Prepare and Implement Soils Management Plan

The implementing entity shall ensure a Soils Management Plan (SMP) is developed by a qualified engineer or geologist and implemented in order to protect workers during ground-disturbing activities and to remove and/or mitigate exposure to hazardous-material-containing soil, where present in the Trail corridor as determined by the Supplemental Soils Investigation as described under **Mitigation Measure HAZ-3(a)**. Laboratory data for the impacted soil, identified as part of the Supplemental Soils Investigation prepared under **Mitigation Measure HAZ-3(a)**, shall be used to profile excavated soil prior to transport, treatment, and recycling at a licensed treatment facility.

Additional profiling of the export soils shall be performed as needed to satisfy requirements of the receiving facility. Removal, transportation, and disposal of impacted soil shall be performed in accordance with applicable DTSC and CalOSHA I laws, regulations, and ordinances. The SMP shall include health and safety information for workers and the general public with an emphasis on potential adverse health effects and how to seek proper help if an accident is suspected and inform the various contractors and workers of the presence of shallow soil impacted with contaminants and the appropriate measures to avoid exposure to contaminants. These measures may include, but would not be limited to, the following:

1. Installing temporary security fencing around the construction site and flag/cone off the areas of contaminated soils (Hot Spots) until the contaminants are removed
2. Providing all personnel entering a Hot Spot with site-specific awareness training
3. Requiring that all personnel whose work will involve the excavation or disturbance of soils in and around the Hot Spot must have successfully completed 40-hour Hazardous Worker (HAZWOPER) training
4. Requiring a HAZWOPER supervisor to be on-site at all times during the excavation or disturbance of soils in a Hot Spot
5. Prohibiting personnel who cannot prove that they are authorized to enter a Hot Spot or do not have the appropriate personal protective equipment from entering a Hot Spot
6. Prohibiting eating, drinking, smoking, chewing gum or tobacco in Hot Spots, and requiring consumable items and activities be confined to designated worker break areas

In the event that contaminated soil and/or groundwater are identified where not previously anticipated during construction, the SMP shall also require that construction cease, and that appropriate handling and disposal procedures be implemented. Contaminated soils and/or groundwater can be identified by discoloration or stains, distinctive odors, absence of plants and animals, subsequent erosion from the absence of plant life, or the presence of paint chips or other materials known to contaminate soils. Procedures for properly handling, storing, and disposing contaminated soils may include, but are not limited to, the following:

1. Placing contaminated soils in properly labeled drums or lined hazardous waste storage/transportation conveyance units (i.e., roll-off waste boxes) in preparation of transportation and disposal
2. Avoiding temporary stockpiling of contaminated soils or hazardous materials
3. If temporary stockpiling is necessary:
 - a. Covering the stockpile with plastic sheeting or tarps
 - b. Installing a berm around the stockpile to prevent runoff from leaving the area
 - c. Avoiding stockpiling in or near storm drains or watercourses

4. Monitoring the air quality during excavation operations at locations potentially exhibiting elevated concentrations of hazardous material
5. Collecting water from decontamination procedures and treating and/or disposing of it at an appropriate disposal site
6. Collecting non-reusable protective equipment and disposing at an appropriate disposal site

HAZ-3(c) Records Search for Residual Soil and Groundwater Contamination

Prior to project construction on the Canyon Del Rey/SR 218 segment a records search for residual soil and groundwater contamination related to the Del Rey Car Wash, Inc. at 810 Canyon Del Rey Road and upgradient release site at 1083 Freemont Boulevard shall be conducted by the implementing entity. Results of the records search shall be document in a technical memorandum and submitted to the Monterey County Environmental Health Bureau prior to issuance of grading permits for the Canyon Del Rey/SR 18 segment near the listed properties. The technical memorandum shall recommend remediation, such as safety precautions for construction workers if necessary, that shall be implemented prior to Trail construction.

Significance After Mitigation

Impacts would be less than significant with mitigation.

Threshold 5: 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?

Impact HAZ-4 THE PROJECT IS LOCATED WITHIN TWO MILES OF THE MARINA MUNICIPAL AIRPORT AND MONTEREY REGIONAL AIRPORT AND MAY RESULT IN SAFETY HAZARDS FOR RECREATIONAL USERS. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

The Canyon Del Rey/SR 218 segment is approximately 0.2 mile north of the Monterey Regional Airport and is located outside of the Monterey Regional Airport's safety zones (County of Monterey 2019a). Therefore, recreational users along the Canyon Del Rey/SR 218 segment would not be exposed to safety hazards.

Both the Northern Marina and Northern Loop segments would cross through safety zones identified in the Marina Municipal Airport Land Use Compatibility Plan. There are seven safety zones defined by the Marina Municipal Airport that have specific land use policies to ensure safe airport operation. The Northern Marina segment would be located within the Marina Municipal Airport safety Zones 6 and 7 and the Northern Loop segment would be located within Marina Municipal Airport's safety Zones 1, 3, 6, and 7 (County of Monterey 2019b). These safety zones described in **Table 4.9-1**.

The Marina Municipal Airport Land Use Compatibility Plan includes land use compatibility standards to restrict development of land uses that could pose hazards to the public. **Table 4.9-1** includes the prohibited uses and development conditions for each zone the proposed alignment would cross.

Table 4.9-1 Marina Municipal Airport Land Use Compatibility Standards

Zone	Prohibited Uses ¹	Development Conditions ²
Zone 1 - Runway Protection Zone. Trapezoidal-shaped are located at ground level beyond each end of the runway. The accident risk level within the runway protection zone is considered to be high	All structures except ones with location set be aeronautical function. All assemblages of people Objects exceeding 14 CFR Part 77 height limits Natural gas and petroleum pipelines Dumps and landfills Hazards to flight ³	Airport disclosure notice required Clustering is not allowed
Zone 3 - Inner Turning Zone. Encompasses the area where aircrafts are typically turning from the base to the final approach legs of the standard traffic pattern and are descending from traffic pattern altitude. Also includes the area where departing aircraft normally complete the transition from takeoff to climb mode. Located on the north side of the airport due to the location of noise-sensitive land uses and terrain south of the airport. The accident risk level is considered to be moderate to high.	Residential, except for low residential infill in developed areas Hazardous uses Natural gas and petroleum pipelines Buildings with more than three above ground habitable floors Children’s schools, daycare centers, libraries Hospitals, nursing homes Places of worship Schools Gas stations Recreational uses, athletic fields, playgrounds, and riding stables Theaters, auditoriums, and stadiums Dumps and landfills Waterways that create bird hazard Hazards to flight ³	Airport disclosure notice required Locate structures maximum distance from extended runway centerline Airspace review required for objects greater than 35 feet tall Clustering is not allowed
Zone 6 - Airport Property Zone. Current airport property with two subzones of Airport Building Areas (terminal areas, hangars, vehicle parking, etc.) and Aircraft Activity Areas (runways, taxiways, etc.).	Hazards to flight ³	Airport disclosure notice required Airspace review required for objects greater than 70 feet tall
Zone 7 - Airport Influence Area. Includes all other portions of regular aircraft traffic patterns and risk level is considered to be low.	Hazards to flight ³ Outdoor stadiums and similar uses with very high intensity uses	Airport disclosure notice required Airspace review required for objects greater than 100 feet tall New structures are prohibited on terrain that penetrates 14 CFR Part 77 Surfaces New structures require additional airspace analysis within the 50 foot terrain penetration buffer Proposed uses involving vulnerable occupants within 6,000 feet from the side of the runway and 10,000 feet from the end of the runway shall require ALUC review. Areas designated as Urban or Exhibit 4C are exempt from the density and intensity criteria

¹ The uses listed are ones that are explicitly prohibited regardless of whether they meet the intensity criteria. In addition to these explicitly prohibited uses, other uses will normally not be permitted in the respective compatibility zones because they do not meet the usage intensity criteria.

² As part of certain real estate transactions involving residential property within any compatibility zone (that is anywhere within an airport influence area), information regarding airport proximity and the existence of aircraft overall flights must be disclosed. This requirement is set by state law.

³ Hazards to flight include physical (e.g., tall objects), visual, and electronic forms of interference with the safety of aircraft operations. Land use development, such as golf courses and certain types of crops as outlined in FAA's Advisory Circular 150/5200-33B, Hazardous Wildlife Attractions on or Near Airports, that may cause the attraction of birds to increase is also prohibited.

Source: Marina Municipal Airport Land Use Commission 2019, Table 4B

FORTAG would include construction of a paved trail and associated facilities. The Trail would not include any buildings and the only structures that would be constructed for the Northern Marina and Northern Loop segments in the airport safety zones would be shade structures along the alignment that would not exceed the height limitations in **Table 4.9-1**. In addition, the Trail would not include any hazards to flight including physical, visual, or electronic hazards. There are no parking or amenity/gathering areas proposed in the identified safety zones. In June 2019, TAMC officials met with Monterey County officials and confirmed that there would be no issues with the proposed alignment passing through the safety zones if FORTAG is consistent with the uses in **Table 4.9-1** (Deal 2019).

Although the proposed FORTAG project would comply with all allowable uses and development conditions outlined in **Table 4.9-1**, Trail users may impact Marina Municipal Airport flight patterns and be exposed to safety hazards from airport operation if they stray from the proposed alignment. **Mitigation Measures HAZ-4** would ensure safety of recreational users by requiring fencing to prevent people from straying off the Trail and noticing signs regarding airport safety.

Mitigation Measures

HAZ-4 Install Airport Noticing and Fencing Prior to Operation

Prior to the Northern Marina or Northern Loop segments opening for public use, the implementing entity shall post airport disclosure notices regarding ongoing airport operation and safety risks. Notices shall be posted at least every mile on the Northern Marina and Northern Loop segments beginning at least a half mile before entering a Marina Municipal Airport designated safety zone. The location of the notices posted along the Trail shall be identified by the implementing entity in consultation with the Marina Municipal Airport Advisory Committee. The implementing entity shall be responsible for ensuring the signage is properly maintained and shall replace signage when it is removed or damaged such that the notices are no longer legible.

In addition, wherever the Trail is located within an airport safety zone, as defined by the Marina Municipal Airport Land Use Compatibility Plan, fencing shall be added along the Trail to prevent recreational users from accessing airport property. Fencing shall be of appropriate height to prevent trail users from straying off the trail. The implementing entity for the Northern Marina and Northern Loop segments shall be responsible for ensuring the fencing is properly maintained and shall replace fencing when it is removed or damaged such that it is no longer functional.

Significance After Mitigation

Impacts would be less than significant with mitigation.

Threshold 6: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Impact HAZ-5 THE PROJECT WOULD NOT SUBSTANTIALLY ALTER ANY ROADWAYS SUCH THAT EMERGENCY EVACUATION WOULD BE IMPAIRED. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The proposed project would result in the addition of a multi-use trail that would cross public roadways throughout Monterey County including, but not limited to: SR 218, SR 1, Inter-Garrison Road, Imjin Road, Gigling Road, and General Jim Moore Boulevard. Vehicular traffic would not be permitted on the Trail, except for maintenance or emergency vehicles when needed, including along the Blue Line Road within the National Monument Loop segment. Maintenance and emergency vehicles would only be located on the Trail for short periods, when maintenance or emergency response activities are occurring, and would not impair implementation of an adopted emergency response plan.

The majority of crossings would be at-grade, requiring improvements and modifications such as roadway and lane modifications; construction medians, curb extensions, warning devices, and traffic control devices; and enhanced safety signing and striping. All at-grade crossings would comply with federal, state, regional, and local regulations and would ensure that crossings would not interfere with an emergency response plan. In addition to at-grade crossings, the Trail would include a number of undercrossings, overcrossings, and roundabouts. Some undercrossings and overcrossings would be included as part of the proposed alignment, such as the bicycle/pedestrian bridge over Imjin Road within the CSUMB Loop North segment and the undercrossing beneath SR 218 within the Canyon Del Rey/SR 218 segment. Other undercrossings, overcrossings, and roundabouts are considered design options, such as the pedestrian-only undercrossing of SR 1 within the CSUMB Loop South segment, if such design options are selected. Similar to at-grade crossings all grade-separated crossings would be designed to federal, state, regional, and local standards to ensure proper traffic flow and would not interfere with an emergency response plan. Specifically, any work within the existing Caltrans right of way, such as on SR 218, would have to comply with Caltrans permitting requirements. This includes a traffic control plan that adheres to the standards set forth in the California Manual of Uniform Traffic Control Devices (Caltrans 2014).

The majority of the proposed alignment would be parallel to or nearby existing roads providing adequate emergency access. In addition, the Trail would provide emergency access in remote areas, such as along the National Monument Loop segment, as discussed in **Section 4.13, Public Safety and Services**. FORTAG would not include gates on any of the Trail segments, to ensure Trail users, maintenance personnel, and emergency personnel can access the Trail segments at all times. Finally, as a recreational trail, FORTAG would not affect the speed or recovery and redevelopment following future disaster events in accordance with the Monterey County Multi-Jurisdictional Hazard Mitigation Plan and the Monterey Peninsula Regional Emergency Coordination Center's planning activities (Monterey County 2015). Therefore, FORTAG would not impair implementation of or physically interfere with evacuation or emergency response plans. The impact related to emergency response and evacuation plans would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

Impacts would be less than significant without mitigation

4.9.5 Cumulative Impact Analysis

Cumulative impacts associated with hazards and hazardous materials are generally site-specific. As such, the geographic scope for considering cumulative impacts to most hazards is the project corridor and the immediately adjacent areas. For cumulative impacts related to the transport, use, and disposal of hazardous materials, the geographic extent would include the SR 1 corridor from Monterey to Castroville and the SR 218 corridor from SR 1 to Amber Park.

Cumulative projects located along the SR 1 and SR 218 corridors include the Del Rey Oaks RV Resort in the City of Del Rey Oaks; Marina Station, Sea Haven, Cypress Knolls Senior Residential Center, Downtown Vitalization Specific Plan, Mosaic Student Housing, Filighera Apartment Complex, Seacrest Apartments in the City of Marina; Campus Town Specific Plan and The Projects at Main Gate in the City of Seaside; FORA Business Park in the City of Monterey; the Fort Dunes State Park Campground in Monterey County; and The Collection at Monterey Bay, Catalina Lofts, South of Tioga, Stepanek Mixed-Use Project, Dayton Residential Project, and San Juan Pool's Commercial Project in the City of Sand City. Although the transport of hazardous materials or waste could occur along SR1 and SR 218, USEPA laws and regulations have been promulgated to track and manage the safe interstate transportation of hazardous materials and waste. Enforcement of these laws and regulations and rapid response by local agencies would reduce hazards to the public or environment from reasonably foreseeable upset and accident conditions involving the release of hazardous materials. Compliance with these existing regulations would generally limit the potential for hazardous materials exposure in the along the SR 1 and SR 218 corridors such that cumulative impacts would be less than significant. As impacts of the project would be site-specific and less than significant, the project's contribution to this effect would not be cumulatively considerable.

Cumulative buildout of the underlying jurisdictions' general plans (i.e. cities of Del Rey Oaks, Marina, Monterey, Seaside, and Monterey County) could expose new residents and structures to hazardous materials impacts in the county, including where development would be located on former agricultural or industrial properties, or within the former Fort Ord. However, hazardous materials releases are generally specific to each project and, for purposes of this cumulative analysis, the geographic context focuses on the project corridor and immediately adjacent lands. Because of the site-specific nature of potential hazardous materials-related issues, any future development along the corridor would be required to address these issues on a case-by-case basis through project-specific environmental review and adherence to the mitigation measures therein. The project could expose construction workers, Trail users, and maintenance personnel to agricultural chemicals due to the project corridor's proximity to existing agricultural properties, as well as exposure to existing soil contaminants released during project construction. However, implementation of **Mitigation Measures AG-4(a) and AG-4(b) in Section 3.2, Agricultural and Forestry Resources**, and **Mitigation Measures HAZ-3(a), HAZ-3(b), and HAZ-3(c)**, where applicable, would reduce project-specific impacts to a less than significant level. With these measures, the project's contribution to a cumulative impact from exposure to agricultural chemicals or other soil contaminants would not be cumulatively considerable. Therefore, cumulative impacts would not be significant.

4.10 Hydrology and Water Quality

This section evaluates potential impacts relating to hydrology and water quality on and around the project corridor. This analysis is based on observations made during a reconnaissance survey on July 22, 2019, and review of available data for surface water and groundwater. This analysis includes a review of surface water features, runoff patterns, groundwater, flooding, and water quality. Water supply and wastewater conveyance and treatment are discussed in **Section 4.16, Utilities and Service Systems**. Potential impacts to wetlands and Waters of the U.S. are discussed in **Section 4.4, Biological Resources**.

4.10.1 Existing Conditions

a. Regional Hydrology

The California Department of Water Resources (DWR) divides surface watersheds in California into ten hydrologic regions (HR). The project corridor is located in the Central Coast HR. This region covers approximately 7.25 million acres and includes all of Santa Cruz, Monterey, San Luis Obispo, and Santa Barbara counties, and parts of San Benito, San Mateo, Santa Clara, and Ventura counties. Major geographic features that define the region include the Pajaro, Salinas, Carmel, Santa Maria, Santa Ynez, and Cuyama valleys; the coastal plain of Santa Barbara; and the Coast Range. The region is largely defined by the northwest-trending southern Coast Range, with a climate generally classified as Mediterranean. The region depends heavily on groundwater, which makes up most of the available water supply, but recycled water is becoming a more plentiful, supplemental source for agricultural and other non-potable uses (DWR 2009).

b. Watersheds and Drainages

The hydrology of the project corridor and individual Trail segments was evaluated through a review of existing information, including topographic maps, aerial photos, the National Hydrography Dataset (NHD), and California Department of Water Resources Water Management Planning Tool (United States Geologic Survey [USGS] 2019, DWR 2019). Existing hydrologic studies that included the project area were also reviewed, including: the Canyon del Rey Master Drainage Plan (Monterey County Water Resources Agency [MCWRA] 2014a), Salinas River Watershed Management Action Plan (Central Coast Regional Water Quality Control Board [CCRWQCB] 1999), Canyon del Rey Master Drainage Plan (MCWRA 2014a), and the Frog Pond Wetland Preserve Enhancement and Erosion Control Plan (Geisler et al. 2015).

The project corridor is located in the Salinas River Watersheds and Canyon Del Rey (USGS 2019, DWR 2019). The Salinas River Watershed can be split further into two subwatersheds, which are unnamed and therefore discussed based on relative location: Salinas River North and Salinas River South. The Trail segments are located in the two watersheds as follows:

Salinas River Watershed – North Subwatershed

- Northern portion of the Northern Marina segment
- Northern portion of the Northern Loop segment

Salinas River Watershed – South Subwatershed

- Southern portion of Northern Marina segment
- Southern portion of the Northern Loop segment
- California State University Monterey Bay (CSUMB) Loop North
- CSUMB Loop South segment
- Northern portions of the National Monument Loop segment

Canyon Del Rey Watershed

- Southern portion of National Monument Loop segment
- Canyon Del Rey/SR 218 segment
- Ryan Ranch segment

Salinas River Watershed

The Salinas River Watershed and its tributaries covers approximately 4,600 square miles (approximately 3 million acres) and lies in San Luis Obispo and Monterey counties (CCRWQCB 1999). The Salinas River originates in San Luis Obispo County and flows 152 miles northward into Monterey County, throughout the entire length of the Salinas Valley to the Monterey Bay near Marina. The Salinas River lies between the Gabilan range to the east and the Santa Lucia and Sierra de Salinas ranges to the west (Resource Conservation District of Monterey County [RCDMC] 2019). The drainages that flow through these mountain ranges contribute water to the Salinas River via four main tributaries: Arroyo Seco, Nacimiento, San Antonio, and Estrella rivers.

From San Luis Obispo County, the Salinas River Watershed headwaters originate in the La Panza Range (southeast of Santa Margarita Lake) and flow towards the city of Bradley, just inside Monterey County, to the Monterey Bay (RCDMC 2019). The project area is located in the lower portion of the watershed near Monterey Bay. The two unnamed subwatersheds of the Salinas River have been identified as South Subwatershed (HUC 12-180600150305), stretching from approximately the Fremont Boulevard exit off SR 1 North to, and including, the Marina Municipal Airport, and the North Subwatershed (HUC 12-180600051509), stretching from the area between the Marina Municipal Airport and the Salinas River.

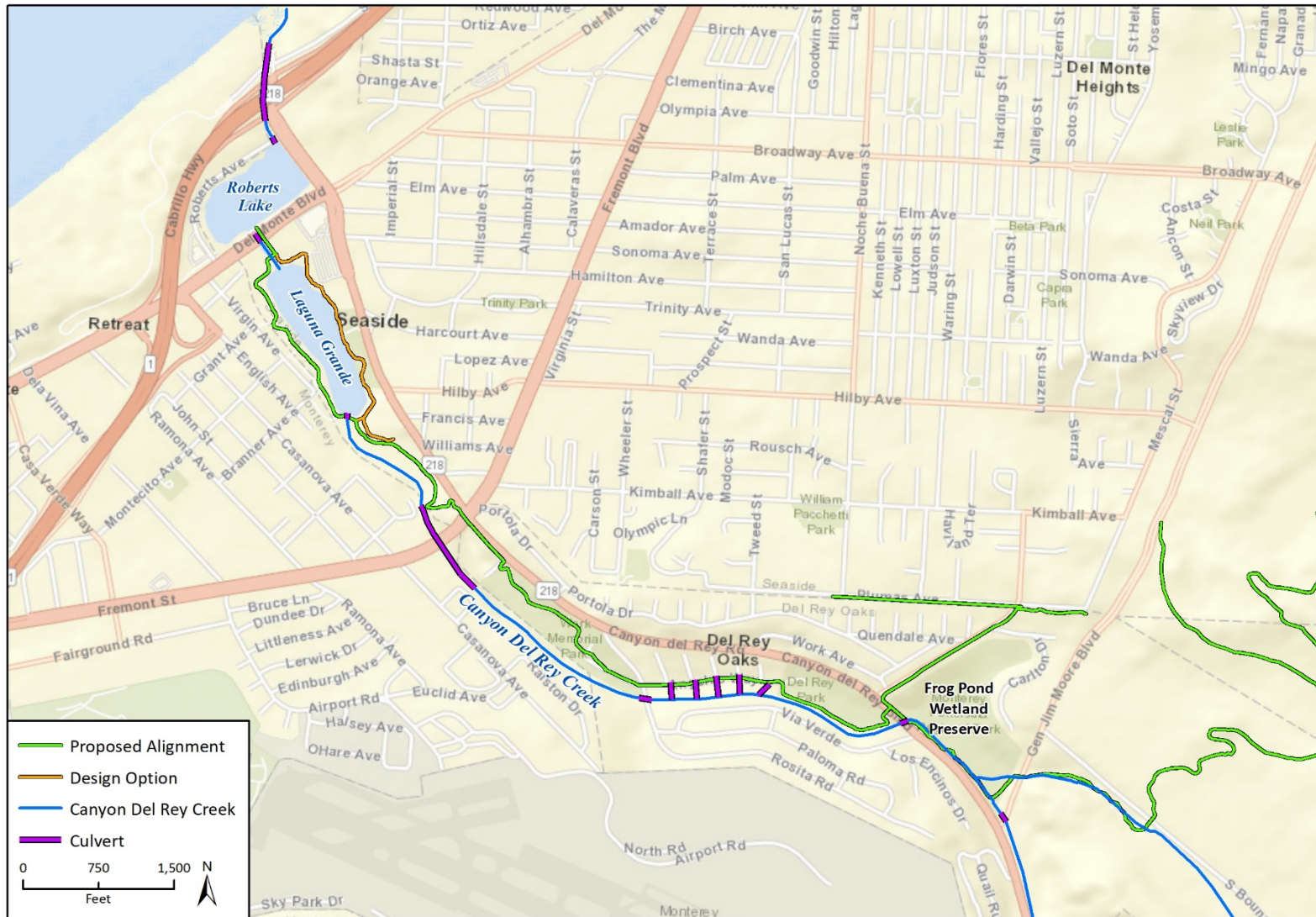
Canyon Del Rey Watershed

The Canyon Del Rey Watershed (HUC 12-180600150304), shown in **Figure 4.10-1**, occurs in the south end of the project corridor. Canyon Del Rey Creek (also referred to as Arroyo Del Rey Creek) is an ephemeral stream that flows to the Pacific Ocean, draining approximately 17 square miles (approximately 10,750 acres) of land surface, including portions of the cities of Seaside, Del Rey Oaks, Monterey, and unincorporated Monterey County (Balance Hydrologics 2014).

The headwaters of Canyon Del Rey Creek originate at an elevation of 500 feet near the Laguna Seca Raceway at the eastern end of the watershed (Balance Hydrologics 2014). The creek flows mostly westerly along State Route (SR) 68 until the junction of SR 68 with SR 218. At the highway junction, the creek follows SR 218 northwest to the Frog Pond Wetland Preserve, eventually draining into Laguna Grande, then Roberts Lake, and finally, the Monterey Bay.

The Frog Pond Wetland Preserve, located approximately 2.2 river miles upstream of Monterey Bay, is within the Canyon Del Rey watershed. The entire preserve is 17 acres in size and sustains both a

Figure 4.10-1 Canyon Del Rey Watershed Features



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Additional data provided by Alta Planning + Design, 2019.

Fig 4.10-1 Canyon Del Rey Oak Culverts

seasonal pond and wetland habitat. The pond and wetlands are an isolated remnant of a much larger freshwater ecosystem, and retain important wetland structures and functions. The pond receives water from three general sources: a tributary to Canyon Del Rey along the southern boundary of the preserve, springs at the northern edge of the pond, and runoff from the residential neighborhoods along the northern boundary of the preserve. The pond typically dries in mid to late summer, and refills after the first significant rains in the fall. Canyon Del Rey Creek maintains low flows throughout the summer, fed by runoff from residential development and golf course irrigation.

Within 1.2 miles of Monterey Bay, the creek passes through a long culvert at Work Memorial Park and into Laguna Grande, a lake approximately 12 acres in size (Balance Hydrologics 2014). The freshwater lake and adjacent freshwater marsh at Laguna Grande Park are part of a complex hydrological system that also includes Roberts Lake and Monterey State Beach, both downstream of Laguna Grande. Water from Laguna Grande flows to Roberts Lake via the Laguna Del Rey outfall. Both lakes are shallow (approximately nine feet at the deepest point), and the bottoms of the basins are generally flat with a few small islands. Water from the lakes eventually flows to Monterey Bay at Monterey State Beach via a box culvert outfall.

Other wetlands within the Canyon Del Rey Watershed include a wetland and vernal pool located west of Angelus Way, located behind Del Rey Oaks Garden, a local plant nursery. The vernal pool has been mapped on the USFWS National Wetlands Inventory (NWI). Historical photography indicates the vernal pool area has been highly disturbed from past from grading activities, and no vernal pool species (plant or wildlife) were identified in this area during the reconnaissance survey (July 22, 2019).

Several detention basins were also identified during the reconnaissance survey and are also shown in **Figure 4.10-1**. These were located along California Avenue and Estrella Del Mar Way in the City of Marina, and 9th Street in the City of Seaside.

c. Topography and Climate

Elevations in the project area range from approximately 15 to 520 feet above mean sea level. The Mediterranean climate in this region is generally mild with cool, wet winters and warm, mostly dry summers. There is an annual minimum average temperature of 48 degrees Fahrenheit, an annual maximum average temperature of 65 degrees Fahrenheit, and an average annual precipitation of 19.73 inches (National Oceanic and Atmospheric Administration 2019).

The topography of the project area includes coastal alluvial terraces and relatively low-lying rolling dune-like hill systems near the coast composed of stabilized sand. The project corridor that extends through the former Fort Ord and along the Salinas River is composed primarily of natural habitats, while the remainder of the project corridor is generally urban in nature, extending through agricultural lands, the CSUMB campus, and the cities of Marina, Seaside, Monterey, and Del Rey Oaks, and parts of unincorporated Monterey County. The Canyon Del Rey/SR 218 segment also extends through the Frog Pond Wetland Preserve and native and landscaped habitats at Laguna Grande. The project corridor also supports commercial agricultural lands that border the northern boundary of the Marina Municipal Airport, in the Northern Marina and Northern Loop segments.

d. Surface Water

This section describes the major surface water features in the project corridor, and the existing beneficial uses¹ and water quality for those waters.

Streams and Drainage Patterns

There are limited surface waters in the project corridor, largely limited to constructed stormwater detention ponds in the northern end of the project corridor, and along the Canyon Del Rey/SR 218 segment in the south.

The isolated stormwater detention ponds are located throughout the northern portions of the project corridor, near the City of Marina. These include:

- **Northern Marina Segment**
 - Northeast of Estrella Del Mar Way
- **CSUMB Loop North**
 - Northwest side of California Avenue
 - Northeast of Estrella Del Mar Way
- **CSUMB Loop South**
 - South side of 9th Street and east of SR 1

All of these detention basins are constructed features and are regularly maintained. No wetland vegetation was observed at any of the basins during the reconnaissance survey in July 2019.

Aquatic resources in the Canyon Del Rey/218 segment include the Laguna Grande and Roberts Lake complex that supports freshwater emergent wetlands, riparian woodlands, riverine and lake habitats. Originally a seasonal estuarine body of water, the Laguna Grande and Roberts Lake complex is now a freshwater marsh that supports the two lakes. This area is supported by flows from Canyon Del Rey Creek, which flows approximately 1,300 feet through Laguna Grande Park before entering Laguna Grande Lake. A section of Canyon Del Rey Creek flows underground through culverts just south west of the park, under Fremont Boulevard and a shopping center. Southeast of the shopping center, Canyon Del Rey Creek is a channelized stream that flows through Work Memorial Park.

The area adjacent to Canyon Del Rey Creek within the park supports wetland habitats, fed by culverts under Canyon Del Rey/SR 218 that support year-round flows, and may include additional waters from a remnant seep or spring. The creek flows into this area from the south side of Angelus Way where there are several driveway bridges over the creek, providing access to residences from Angelus Way in Del Rey Oaks. Where Angelus Way meets Canyon Del Rey Boulevard/SR 218, the creek flows from the Frog Pond Wetland Preserve along the south side of Del Rey Park before flowing under Canyon Del Rey/SR 218. Flows from Canyon Del Rey Creek enter Frog Pond through a culvert under General Jim Moore Boulevard. The upper reaches of Canyon Del Rey Creek are ephemeral in nature, and are channelized along the eastern side of SR 218 (Geisler et al. 2015),

¹Beneficial uses are defined in the Basin Plan as existing or potential uses of water in the Central Coastal Basin that must be protected. The Basin Plan then establishes water quality standards and the level of treatment necessary to maintain the standards and ensure the continuance of the beneficial uses (CCRWQCB 2017).

draining the northern side of the small canyon south of South Boundary Road. Frog Pond also typically dries up in late summer.

There are also additional isolated water features located throughout other portions of the project corridor, including several stormwater detention basins located in the City of Marina. These are located west of General Jim Moore Boulevard, south of 9th Street east of SR 1, on the northwest side of California Avenue, and northeast of Estrella Del Mar Way.

Surface Water Quality

The project corridor supports a mixture of urban development, open space, and agricultural land uses. Large expanses of commercial and residential development are located throughout the cities within the project area, including Marina, Seaside, Monterey, and Del Rey Oaks, as well as the CSUMB campus. These developed lands are dominated by impermeable roadways and typical urban infrastructure. Interspersed throughout these areas are rolling hills that support dense vegetation, in addition to agricultural operations located just north of the Marina Municipal Airport.

Stormwater runoff from urban and agricultural lands can be a source of water quality pollutants, including sediment, heavy metals, bacteria, pesticides, insecticides, and fertilizers (CCRWQCB 2017). Existing impairments to water quality in and adjacent to the project corridor and efforts to improve water quality and prevent further degradation are discussed below.

The CCRWQCB regulates water quality in the Canyon Del Rey and Salinas watersheds, and establishes water quality objectives and requirements for the quality of point and non-point sources of discharge through the Water Quality Control Plan for the Central Coastal Basin (Basin Plan) (CCRWQCB 2019). A point source of discharge is defined as waste emanating from a single, identifiable point such as a wastewater treatment plant. A non-point source of discharge results from drainage and percolation of agricultural and urban stormwater runoff.

The Basin Plan defines beneficial uses of the ponds and lakes within the project area. The beneficial uses for those waterbodies are listed below in **Table 4.10-1**. Based on the established beneficial uses listed below, the CCRWQCB established water quality standards, as well as the level of treatment necessary to maintain the standards and ensure the continuance of the beneficial uses.

The Basin Plan also defines beneficial uses for coastal waters in the region. The stretch of coastal waters from Salinas River (north of the project corridor) to Point Pinos (south of the project corridor) is recognized as providing the beneficial uses of Water Contact Recreation, Non-Contact Water Recreation, Industrial Service Supply, Navigation, Marine Habitat, Shellfish Harvesting, Commercial and Sport Fishing, and Wildlife Habitat.

Table 4.10-1 Beneficial Uses of Waterbodies in the Project Corridor

Beneficial Uses	Waterbody Name	
	Marina Ponds	Laguna Grande/ Roberts Lake
Municipal and Domestic Supply		X
Agricultural Supply		
Industrial Process Supply		
Industrial Service Supply		
Groundwater Recharge	X	
Water Contact Recreation	X	X
Non-Contact Water Recreation	X	X
Wildlife Habitat	X	X
Cold Fresh Water Habitat	X	X
Warm Fresh Water Habitat		X
Migration of Aquatic Organisms		
Spawning, Reproduction, and/or Early Development	X	
Preservation of Biological Habitats of Special Significance	X	
Rare, Threatened, or Endangered Species	X	
Estuarine Habitat		
Fresh Water Replenishment		
Commercial and Sport Fishing	X	X
Shellfish Harvesting		

Source: CCRWQCB 2017

The CCRWQCB assessed surface waters in the region for potential pollutants or other adverse effects that may impair one or more of the beneficial uses described above. The CCRWQCB found that the Salinas River and Salinas Reclamation Canal near the project corridor are currently impaired and are not achieving the water quality standards established in the Basin Plan. Both the Salinas River and Salinas Reclamation Canal are listed on the 2012 303(d) list, California’s current account of impaired waterbodies (State Water Resources Control Board [SWRCB] 2018). There are non-point source Total Daily Maximum Loads (TMDL) that have been established for chlorpyrifos and diazinon, fecal coliform, nutrients, salts sedimentation and siltation. A TMDL for turbidity is currently being prepared.

e. Groundwater

This section describes the groundwater basins, or aquifers, that underlie the project corridor. The storage capacity, current estimated amount of groundwater in storage, and quality of the groundwater are reported based on available data.

Groundwater Storage Capacity and Levels

The Salinas Valley Groundwater Basin underlies the project corridor. The Salinas Valley Groundwater Basin, which spans an area of over 800 square miles, provides a vital source of water for municipal and agricultural users within Monterey County (Salinas Valley Basin Groundwater Sustainability Agency 2017). Situated in the middle of the San Joaquin Valley and the Pacific Ocean, the Basin is the largest coastal groundwater basin in Central California and has a storage capacity of 19,750,000 acre-feet (AF) (MCWRA 2014b). In the Salinas Valley Groundwater Basin, three subbasins underlie different sections of the project corridor as described below by subbasin name.

Salinas Valley 180/400 Foot Aquifer Subbasin

The majority of the Northern Marina segment and northern section of the Northern Loop segment are underlain by the 180/400 Foot Aquifer Subbasin. This subbasin, which was named for the average depths of the two water-bearing units that comprise it, the 180-Foot Aquifer and the 400-Foot Aquifer, is 132 square miles and had an estimated storage capacity of 7,240,000 AF in 2002 (DWR 2004). Both aquifers are comprised of sands, gravels, and clay lenses and are underlain by alluvial basin fill. The 180-Foot Aquifer is believed to correspond to older portions of the Quaternary terrace deposits or the Upper Aromas Red Sands. The 180-Foot aquifer has an average thickness of 100 feet. The two Aquifers that comprise the 180/400 Foot Aquifer Subbasin are separated by a zone of discontinuous aquifers and aquitards composed of a marine blue clay. Upper portions of the 400-Foot Aquifer were likely formed from Aromas Red Sands, and the lower portion was likely formed from part of the Paso Robles Formation. Average thickness of the 400-Foot Aquifer ranges at 200 feet.

Salinas Valley Monterey Subbasin

Portions of both the Northern Loop segment and the National Monument Loop segment, as well as the entire alignments of the CSUMB Loop North and CSUMB Loop South segments, are underlain by the Monterey Subbasin. The basin is overlain by approximately 30,855 acres of land in the northwestern area of the Salinas Valley Groundwater Basin (Boyle 2017). The basin is also found in the Paso Robles Formation. Neither the storage capacity nor the current amount of groundwater in storage has been reported for this basin.

Salinas Valley Seaside Subbasin

Portions of both the National Monument Loop segment and the Canyon Del Rey/SR 218 segment, as well as the entirety of the Ryan Ranch segment, are underlain by the Seaside Subbasin. The subbasin is located underneath the cities of Seaside and Marina, and the western portion of the former Fort Ord, and has a surface area of 40 square miles (DWR 2004). There are three water-bearing units within the subbasin, with the major water-bearing unit of the subbasin being the Paso Robles Formation, and the aggregate maximum thickness is over 1,000 feet. Storage capacity has been estimated at 1,000,000 AF.

Groundwater Quality

Groundwater in the entire Salinas Valley Groundwater Basin is subject to saltwater intrusion due to its proximity to the Pacific Ocean and over pumping for municipal and agricultural uses (DWR 2004a, DWR 2004b, MCWRA 2014b). Surrounding agricultural land uses have also contributed substantial amounts of nitrates into the 180/400 Foot Aquifer (DWR 2004).

f. Flood Hazards

This section discusses the Federal Emergency Management Agency (FEMA) designated flood hazard zones that cross the project corridor. Flood hazards from failure of flood control infrastructure (such as dams and levees) and seismically induced flood hazards (such as mudflow, seiche, and tsunami) are also discussed below, under the heading *Dam Inundation and Tsunami Hazards*.

FEMA Flood Hazard Zones

FEMA establishes base flood heights for the 100-year flood zone and the 500-year flood zone. The 100-year flood zone is defined as the area that could be inundated by a flood that has a 1-percent probability of occurring in any given year, or once every 100 years. The 500-year flood zone is defined as the area that could be inundated by a flood that has a 0.2-percent probability of occurring in any given year, or once in 500 years.

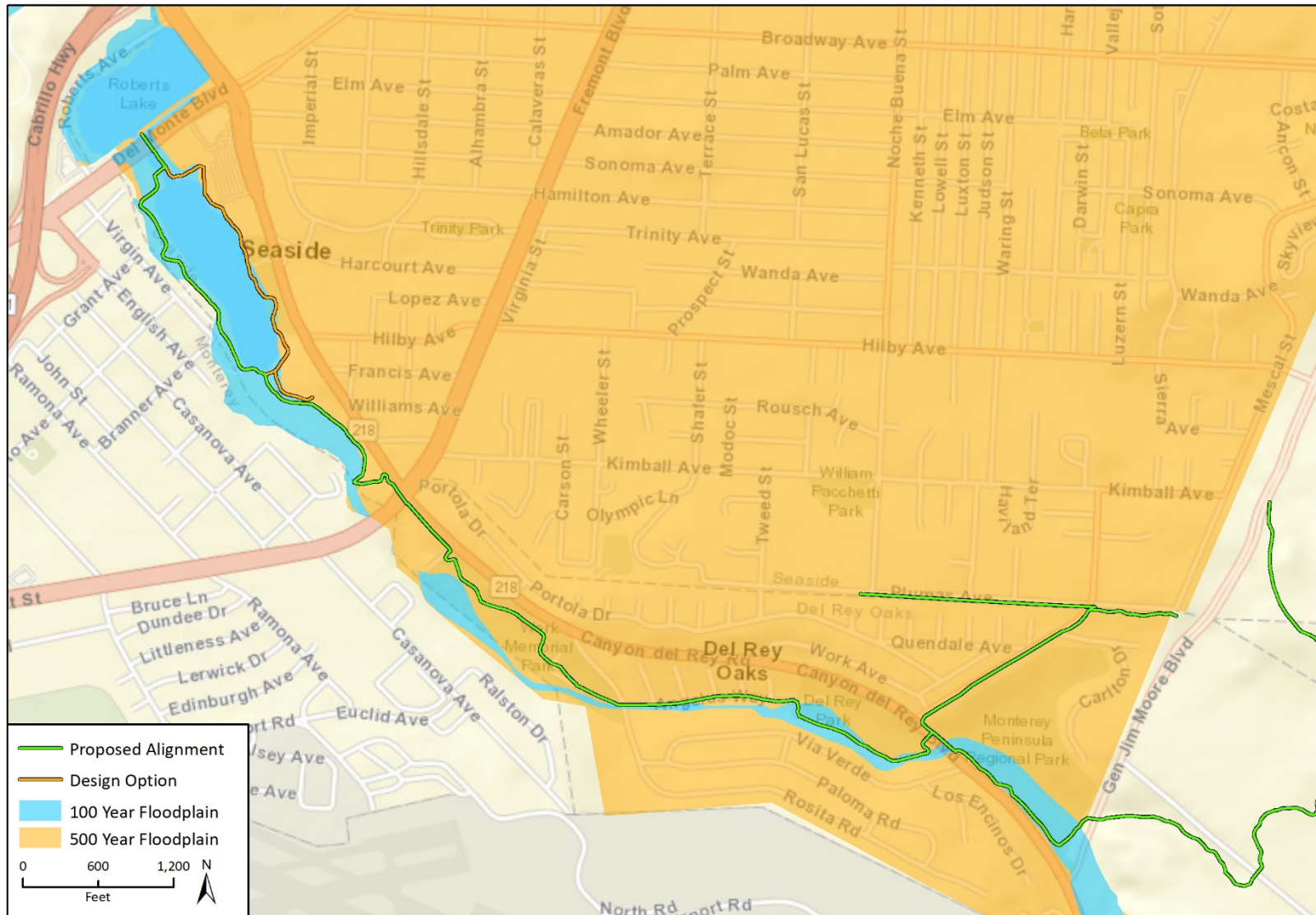
The project corridor is largely defined as Zone X, an area that has minimal flood hazard and is above the 500-year flood level. The Canyon Del Rey/SR 218 segment, from the Frog Pond Wetland Preserve through Roberts Lake, is all considered within the AE zone, a high-risk area in the 100-year floodplain, as shown in **Figure 4.10-2**.

g. Dam Inundation and Tsunami Hazards

There are three major dams and several smaller dams located in Monterey County, and none of the dams have been subject to failure or significant damage (County of Monterey 2019a). The three largest dams are the Nacimiento, San Antonio, and Los Padres Dams. The closest large dam to the project corridor is the Los Padres Dam, which is located approximately 16 miles southeast of the southern segments of the project corridor. Dam inundation mapping is available for all of Monterey County; the eastern portions of the Northern Marina and Northern Loop segments are within the Salinas River inundation area (Monterey County Resource Management Agency 2010).

A tsunami is a series of waves generated by an impulsive disturbance in the ocean or in a small, connected body of water. Tsunamis are produced when movement occurs on faults in the ocean floor, usually during very large earthquakes. Sudden vertical movement of the ocean floor when fault movement occurs can displace the overlying water column, creating a wave that travels outward from the earthquake source. An earthquake anywhere in the Pacific can cause tsunamis around the entire Pacific basin. Since the Pacific Rim is highly active seismically, tsunamis are not uncommon (City of Santa Cruz 2017). The elevation and steep cliffs of the marine terrace throughout the project corridor limit the extent of tsunami inundation to relatively small areas, generally associated with coves and mouths of major drainages (California Emergency Management Agency 2009a, 2009b, 2009c). According to the State of California Tsunami Inundation Map for Emergency Planning, Marina and Seaside Quadrangles, the project corridor is largely not located within a tsunami inundation zone, with the exception of the Canyon Del Rey/SR 218 alignment, northwest of Fremont Boulevard to Roberts Lake (CalEMA 2009b). This area is also located adjacent to both Laguna Grande and Roberts Lakes, thereby increasing the risk of a seiche during a seismic event (City of Seaside 2004).

Figure 4.10-2 Canyon Del Rey/SR 218 Segment FEMA Flood Zones



Imagery provided by ESRI and its licensors © 2019.
 Floodplain data provided by Federal Emergency Management Agency, 2018. Additional data provided by Alta Planning + Design, 2019.

Fig 4.10-2 FEMA Flood Zones

4.10.2 Regulatory Setting

a. Federal

Clean Water Act (CWA)

In 1972, Congress passed the Federal Water Pollution Control Act, commonly known as the Clean Water Act (CWA), with the goal of “restor[ing] and maintain[ing] the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. section 1251(a). The CWA directs states to establish water quality standards for all Waters of the United States and to review such standards on a triennial basis and consider updating them. Section 319 mandates specific actions for the control of pollution from non-point sources. The EPA has delegated responsibility for implementation of portions of the CWA, including water quality control planning and control programs, such as the National Pollutant Discharge Elimination System (NPDES) Program, to the SWRCB and the RWQCBs.

Section 303(c)(2)(b) of the CWA requires states to adopt water quality standards for all surface Waters of the United States based on the water body’s designated beneficial use. Water quality standards are typically numeric, although narrative criteria based upon biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards. Water quality standards applicable to the project are provided in the Basin Plan (CCRWQCB 2017).

Section 303(d) of the CWA bridges the technology-based and water quality-based approaches for managing water quality. Section 303(d) requires that states make a list of waters that are not attaining standards after the technology-based limits are put into place. For waters on this list and where the USEPA administrator deems they are appropriate, states are to develop “total maximum daily loads” (TMDL). TMDLs are established at the level necessary to implement the applicable water quality standards. A TMDL must account for all sources of the pollutants that caused the water to be listed. Within or adjacent to the project corridor, the Salinas River watershed has TMDLs for Chlorpyrifos and diazinon, fecal coliform, nutrients, salts, and sediment toxicity, with a TMDL for turbidity in development (SWRCB 2018), as discussed above under *Surface Water Quality*.

Section 402 of the CWA established the NPDES. The goal of the NPDES nonpoint source regulations is to improve the quality of stormwater discharged to receiving waters to the “maximum extent practicable” through the use of best management practices (BMP). The NPDES permit system was established in the CWA to regulate point source discharges (a municipal or industrial discharge at a specific location or pipe) and certain types of diffuse discharges, including urban stormwater and construction site runoff.

The SWRCB permits all regulate construction activities under the NPDES General Permit for Storm Water Discharges Associated with Construction Activity (adopted September 2, 2009), known as the “Construction General Permit.” Every construction project that disturbs one or more acres of land surface or that is part of a common plan of development or sale that disturbs more than 1.0 acre of land surface would require coverage under this Construction General Permit. To obtain coverage under this Construction General Permit, the landowner or other applicable entity must file Permit Registration Documents (PRD) prior to the commencement of construction activity and mail the appropriate permit fee to the SWRCB. The PRDs include a Notice of Intent (NOI), Stormwater Pollution Prevention Plan (SWPPP), and other documents required by the Construction General

Permit. Since the project would disturb more than 1.0 acre, the project would require a SWPPP and would be subject to these Construction General Permit requirements.

Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as stockpiling or excavation, that result in soil disturbances of at least one acre of total land area. The SWPPP has two major objectives: (1) to help identify the sources of sediment and other pollutants that affect the quality of stormwater discharges; and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater as well as non-stormwater discharges. BMPs are intended to reduce impacts to the Maximum Extent Practicable.

Section 404 of the CWA prohibits the discharge of any pollutants into Waters of the United States, except as allowed by permit. Section 404 of the CWA authorizes the U.S. Army Corps of Engineers (USACE) to issue permits for and to regulate the discharge of dredged or fill materials into wetlands or other waters of the United States. Under the CWA and its implementing regulations, “waters of the United States” are broadly defined to consist of rivers, creeks, streams, and lakes extending to their headwaters, including adjacent wetlands.

Federal Emergency Management Agency

FEMA formed in 1979 as an independent agency and became part of the Department of Homeland Security in March 2003. The agency is tasked with responding to, planning for, recovering from, and mitigating against disasters. FEMA is responsible for determining flood elevations and floodplain boundaries based on USACE studies and approved agency studies, as well as for coordinating the federal response to floods, earthquakes, hurricanes, and other natural or man-made disasters. FEMA also provides disaster assistance to states, communities, and individuals.

FEMA distributes the Flood Insurance Rate Maps that identify the locations of special flood hazard areas, including the 100-year flood zone. Executive Order 11988 (Flood Plain Management) links the need to protect lives and property with the need to restore and preserve natural and beneficial floodplain values. Specifically, federal agencies are directed to avoid conducting, allowing, or supporting actions on the base floodplain unless the agency finds that the base floodplain is the only practicable alternative location. As noted previously, the Canyon Del Rey/SR 218 alignment is located within or adjacent to the 100-year flood hazard zone.

Similarly, Department of Transportation Order 5650.2 implements Executive Order 11988 and was issued pursuant to the National Environmental Policy Act of 1969, the National Flood Insurance Act of 1968, and the Flood Disaster Protection Act of 1973. The order prescribes policies and procedures for ensuring that proper consideration is given to avoidance and mitigation of adverse floodplain impacts in agency actions, planning programs, and budget requests.

b. State

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Control Act establishes the SWRCB and each RWQCB as the principal state agencies for coordinating and controlling water quality in California. Specifically, the Porter-Cologne Act authorizes the SWRCB to adopt, review, and revise policies for all surface waters and groundwater of the state and directs the RWQCBs to develop regional basin plans.

The CCRWQCB has the authority to implement water quality protection standards through the issuance of permits for discharges to waters in its jurisdiction. As described previously, water quality

objectives for receiving waters in Monterey County are specified in the Basin Plan prepared by the CCRWQCB, in compliance with the federal CWA and the Porter-Cologne Act. The principal elements of the Basin Plan are a statement of beneficial water uses protected under the plan, water quality objectives necessary to protect the designated beneficial water uses, and strategies and time schedules for achieving the water quality objectives. Together, narrative and numerical objectives define the level of water quality that shall be maintained in the region. The water quality objectives are achieved primarily through the establishment and enforcement of waste discharge requirements (WDR).

RWQCBs have primary responsibility for issuing WDRs. The RWQCBs may issue individual WDRs to cover individual discharges or general WDRs to cover a category of discharges. WDRs may include effluent limitations or other requirements designed to implement applicable water quality control plans, including designated beneficial uses and the water quality objectives established to protect those uses and prevent the creation of nuisance conditions. Violations of WDRs may be addressed by issuing Cleanup and Abatement Orders or Cease and Desist Orders, assessing administrative civil liability, or seeking imposition of judicial civil liability or judicial injunctive relief.

California Coastal Act

The California Coastal Commission was established in 1972 and is responsible for protecting, conserving, and restoring water quality in coastal environments as detailed in Sections 30230 and 30231 of the California Coastal Act (Coastal Act). The California Coastal Commission establishes policies that address shoreline public access and recreation, habitat protection, aesthetic resources, public works, and other uses. The Coastal Act provides long-term protection of California's coastline for the benefit of the public. In order to meet the requirements of Sections 30230 and 30231, the California Coastal Commission requires site design, source control, and treatment BMPs. New development and redevelopment projects located in a coastal zone are required to apply for a Coastal Development Permit prior to construction. The Coastal Development Permit requires projects to demonstrate water quality protection through the implementation of appropriate BMPs. The project would be subject to a Coastal Development Permit through the City of Seaside Local Coastal Program for development of the Canyon Del Rey/SR 218 alignment.

The Coastal Act includes specific policy language protecting wetlands, which are defined as all areas meeting at least one wetland parameter. Public Resources Code section 30233 limits permissible uses within wetlands to a handful of authorized uses, including "nature study" and "similar resource-dependent activities." Even these limited activities are only permitted "where feasible mitigation measures have been provided to minimize adverse environmental effects" and "where there is no feasible less environmentally damaging alternative."

c. Regional and Local

Fort Ord Reuse Authority Base Reuse Plan

The Fort Ord Reuse Authority adopted the *Fort Ord Base Reuse Plan* in June 1997, and a revised version of the BRP was published in digital format in September 2001 and March 2018, incorporating various corrections and errata. Chapter 4.4.2, Hydrology and Water Quality, within the Conservation Element of the BRP, identifies objectives to protect both surface and ground water quality. Section 4.4.2.2 lists Objectives A through C which call for the protection and preservation watersheds and recharge areas, the elimination of groundwater overdraft, and for the control of point and nonpoint water pollution sources.

Multi-Jurisdictional Hazard Mitigation Plan

The Monterey County Multi-Jurisdictional Hazard Mitigation Plan incorporates hazard mitigation principles and practices into the routine government activities and functions of the County and twelve municipalities participating in the Plan. The Plan recommends specific actions that are designed to protect people and community assets from losses to those hazards that pose the greatest risk. Chapter 7, Mitigation Strategy, provides a blueprint for reducing the potential losses identified in the vulnerability analysis. Such measures include local plans and regulations, structure and infrastructure projects, natural systems protection, education and awareness programs, and other activities (Monterey County 2015). Within this chapter, Section 7.3.3, Natural Systems Protection, lists several mitigation actions to reduce damage and loss as well as restore and preserve natural systems, including sediment and erosion control, stream corridor restoration, conversation easements, and wetland restoration and preservation (Monterey County 2015).

Water Quality Control Plan for the Central Coast Basin

The purpose of the Basin Plan is to show how the quality of surface water and groundwater in the Central Coast Region will be managed to provide the highest water quality reasonably possible for the region (CCRWQCB 2019). The plan lists the various uses of water throughout the Central Coast Region, and describes how water quality must be maintained to allow those uses to continue to serve the region. The Basin Plan also includes an implementation plan that describes the programs, projects and other actions that are necessary to achieve the standards established in the plan. An overview of State Water Resources Control Board and Regional Water Quality Control Board plans and policies to protect water quality is also included. Finally, the Basin Plan includes the statewide and regional surveillance and monitoring programs that are implemented to provide ongoing data to determine future planning for the Central Coast Region to maintain water quality.

Floodplain Management Plan

The Floodplain Management Plan for Monterey County is intended to meet the requirement for continued participation in the FEMA National Flood Insurance Program Community Rating System (MCWRA 2014c). The Monterey County Water Resources Agency prepared this plan to assess the flooding hazards within unincorporated areas of the County, to summarize the County's floodplain management program strategy, to describe the current flood mitigation strategy for the County, and to guide the implementation of measures throughout the County to minimize flood hazards. The Floodplain Management Plan was prepared with input from County residents, responsible official and with the support of the State of California Office of Emergency Services and FEMA.

Monterey County Groundwater Management Plan

The Monterey County Groundwater Management Plan (MCWRA 2006) was developed to formalize the management activities being conducted in the Salinas Valley Groundwater Basin, and to set forth basin management objectives to guide future management activities. The basin management objectives are to:

- Develop an integrated water supply to meet existing and project water requirements,
- Determine the sustainable yield and avoid overdraft of local groundwater, and
- Preserve groundwater quality for beneficial use.

The Groundwater Management Plan is intended to enable the Monterey County Water Resources Agency, landowners, and municipal water purveyors to continue use of groundwater for regular water supply, to expand their use of groundwater during dry periods or emergencies, and to work with each other and with other agencies via implementation of the plan dependent on ongoing monitoring to ensure that the Salinas Valley Groundwater Basin remains a sustainable and reliable groundwater source over time.

Monterey County

Monterey County General Plan

The Monterey County General Plan (2010) Public Services, Safety, and Conservation and Open Space Elements contain goals and policies related to hydrology and water quality.

Goals PS-2 and PS-3 in the Public Services Element address water quality and supply within the County. Various policies within this section are described as to prevent groundwater overdraft, encourage cultivated lands on erodible slopes to be taken out of production, require that projects are designed to minimize runoff, encourage aquifer recharge, and restrict coverage by impervious material in potential groundwater recharge areas.

Goal S-3, Drainage, within the Safety Element, contains Policies S-3.1 through S-3.9 which ensure effective storm drainage and flood control for environmental protection. Among the listed policies are the incorporation of BMPs, as approved in the Monterey Regional Storm Water Management Program, to reduce urban runoff impacting water quality.

The Conservation and Open Space Element of General Plan, intended to guide the County conservation and preservation of natural resources, contains policies within Goal OS-3 to prevent soil erosion to conserve soils and enhance water quality. These include the implementation of BMPs throughout ground disturbing activities and cooperation with regional, State, and federal agencies to inform the public and provide technical assistance programs to implement erosion and sediment control, water use, and groundwater management. In addition, Policy OS-4.2 restricts the direct and indirect discharges of substances that exceed state or federal standards into marine waters, rivers, or streams.

Monterey County Code, Chapter 16.08, Grading

Chapter 16.08 of the Monterey County Code regulates grading activities. The purpose of these regulations is to safeguard health, safety, and public welfare, to minimize erosion, protect fish and wildlife, and to otherwise protect the natural environment. A grading permit is required for all activities that would exceed 100 cubic yards of grading. Where grading operations obstruct and/or otherwise impair the flow or runoff of a drainage course, appropriate drainage facilities are required to be implemented to convey flows past the point of obstruction (section 16.08.330). Chapter 16.08 also contains measures to protect water quality from grading related activities and associated erosion. These requirements are codified in section 16.08.340 of the Monterey County Code, which requires that all areas disturbed in connection with grading related activities shall be consistently maintained to control erosion. The project would be required to comply with these requirements.

Monterey County Code, Chapter 16.12, Erosion Control

Monterey County Code Chapter 16.12 requires that development activities control runoff to prevent erosion. The purpose of these regulations is to eliminate and prevent conditions of accelerated

erosion that have led to, or could lead to, degradation of water quality, loss of fish habitat, damage to property, loss of topsoil or vegetation cover, disruption of water supply, increased danger from flooding. An erosion control plan is required to be submitted to the County of Monterey prior to any land disturbing activities (section 16.12.060). This plan is required to indicate methods to control erosion. Runoff control must be implemented to control runoff from a 10-year storm event (section 16.12.070). All runoff must be detained or dispersed so that the runoff rate does not exceed the pre-development level. Any concentrated runoff which cannot be effectively detained or dispersed without causing erosion is to be carried in non-erodible channels or conduits to the nearest drainage course designated for such purpose or to on-site percolation devices with appropriate energy dissipaters to prevent erosion at the point of discharge. Runoff from disturbed areas must be detained or filtered by berms, vegetated filter strips, catch basins, or other means as necessary to prevent the escape of sediment from the disturbed area. The project would be required to comply with these requirements

City of Marina

City of Marina General Plan

The Community Land Use Element of the Marina General Plan prohibits development on land where a significant potential threat to life or property from very high seismic shaking or seismically induced ground failure, flooding, or landslides (City of Marina 2010). The policies of that element incorporate provisions and policies of the City's certified Local Coastal Program (1982), which is currently being updated (City of Marina 2019).

The Community Design and Development Element includes requirements for protecting water resources (City of Marina 2010). This section states that all potential major sources of water pollution shall comply with local, State, and federal water quality programs, and that all erosion control plans incorporate best management practices to protect water quality.

City of Marina Municipal Code

Chapter 8.46 of the Urban Storm Water Quality Management and Discharge Control of the City of Marina Municipal Code creates provisions to protect and enhance water quality, pursuant to local, State, and federal regulations by minimizing pollutants entering storm drains (City of Marina 2019). The City Code also requires construction sites to implement BMPs to minimize pollutants from entering local storm drains.

City of Seaside

2004 Seaside General Plan

The currently adopted City of Seaside General Plan contains goals and policies for the mitigation of natural hazards associated with local and regional water features, including tsunamis and seiches. Goal S-1 is set forth by the City to reduce the risks to people and property from hazards related to seismic activity, flooding, geologic conditions, and wildfires. Goal COS-3 also identifies measures to protect and enhance both local and regional water resources (City of Seaside 2004). Because the City primarily relies on groundwater, the elimination of long-term groundwater over drafting, the prevention of saltwater intrusion of groundwater, as well as the protection of aquifer recharge areas are emphasized in this section of the General Plan. Additionally, Policy COS-3 requires the adherence to all local, regional, State, and federal agencies water quality programs and regulations

aimed to improve surface water quality. In addition, public outreach and education on pollutants entering storm drains and local waterways are described in Policy COS-3.3.

2040 City of Seaside General Plan (Draft)

The draft *2040 City of Seaside General Plan*, currently available for public review, contains goals and policies, primarily in the Parks, Open Space, and Conservation Element, to protect water quality and other natural resources within the City (City of Seaside 2017). Policy POC-11 has been established to reduce storm water and other pollution from entering Robert's Lake, Laguna Grande, the Monterey Bay, and other bodies of water. The Policy requires installing permeable pavements, reducing storm water runoff, incorporating storm water facilities into park and open space designs, as well as other elements to reduce impacts to water quality within the City.

Seaside Municipal Code

Chapter 8.46, Urban Storm Water Quality Management and Discharge Control, of the Seaside Municipal Code, provides a management system for the protection and enhancement of water quality by reducing and prohibiting discharges into the storm drain system. Section 8.46.090 identifies illegal City storm drain discharges. The list of prohibited discharges includes vehicle fluids, wash out from concrete trucks, contaminated runoff from areas where hazardous substances, including diesel fuel, gasoline and motor oil, are stored, or any pollutants that cause or contribute to a violation of applicable water quality standards.

City of Monterey

City of Monterey General Plan

The Conservation Element of the City of Monterey General Plan (2016) identifies the goals, policies, and programs in place to protect water quality and other natural resources within the City. Goal b.1 and Policy b.1 explain the City's objective to inform the public about the hazards associated with dumping waste into storm drains for the protection of creeks, lakes, wetlands, beaches, and Monterey Bay. Policies b.2 and b.3 are intended to minimize particulate matter pollution with erosion and sediment control in waterways and construction sites as well as the minimization of the removal of vegetation in areas vulnerable to erosion. The policies state the requirement of erosion control programs in vulnerable areas. In addition, the retaining of and restoration of wetlands, riparian areas, and other habitats are listed in Policy b.4.

City of Monterey Municipal Code

Chapter 31.5 of the City of Monterey Municipal Code is intended to protect and enhance water quality, pursuant to local, State, and federal regulations. Reduction of pollutants entering storm drains is listed as a primary method to reduce impacts to water quality. Materials and liquids that prohibited to be discharged into storm drains are listed in Section 31.5-12. In addition, the City Code establishes that construction sites are required to implement BMPs to reduce pollutant entry into storm drains.

City of Del Rey Oaks

City of Del Rey Oaks General Plan

The City of Del Rey Oaks General Plan Conservation and Open Space Element describes how natural resources within the City will be preserved and protected. Policy C/OS-2 and C/OS-9 establish that the City should coordinate with surrounding jurisdictions in preventing erosion, pollution, and siltation of the Canyon Del Rey drainage system due to increased water runoff from urban development (City of Del Rey Oaks 1997). Additionally, Policy C/OS-8 states that surface water quality shall be maintained, and areas of groundwater recharge be kept free of contamination.

City of Del Rey Oaks Municipal Code

Chapter 15.32 of the Del Rey Oaks Municipal Code provides grading requirements for grading and excavation in the city. A permit is required for most grading in the city and requires designation of maximum and minimum slopes, safe and adequate drainage, and specific excavation or fill. In addition, Sections 15.32.190 through 15.32.240 provide guidance for excavation and fill, prohibit accelerated erosion through implementation of erosion reduction measures, and require all graded sites to be developed in manner that would provide control of storm and surface waters.

4.10.3 Methodology and Significance Thresholds

Methodology

This section describes the potential environmental impacts of proposed FORTAG project and all FORTAG design options relevant to hydrology and water quality. The impact analysis is based on an assessment of baseline conditions for the project corridor, including the surface and groundwater conditions, as described in **Section 4.10.1, Existing Conditions**. This analysis identifies potential impacts based on the predicted interaction between the affected environment and construction and operation of FORTAG, and recommends mitigation measures, when necessary, to avoid or minimize impacts.

Significance Thresholds

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water 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 which 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 which would result in flooding on- or off-site

- c) 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
 - d) Impede or redirect flood flows
4. Risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones
 5. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan

4.10.4 Project Impact Analysis

Threshold 1: Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Impact HYD-1 THE PROJECT MAY RESULT IN AN INCREASE OF POLLUTANT DISCHARGES TO WATERS OF THE STATE. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

Construction

Construction of the project would include clearing and grubbing, grading, placement of crushed aggregate base and paved surface, installation of signs and limited rest area amenities, including benches and shade structures, retaining walls, and the installation of limited fencing, as necessary, to separate Trail users and conflicting adjacent land uses (e.g., agricultural lands, busy roadways, sensitive resources).

Additionally, as described in **Section 2.4, Project Characteristics**, existing parking areas would serve the Trail. Although there may be improvements for safety and to protect habitat (e.g., fencing or other barriers between the Trail and parking area), there would be no paving, expansion, or additional parking lots as a result of implementation.

The proposed alignment would not cross any drainages; however, the Canyon Del Rey/SR 218 segment would be located adjacent to a number of water features, including Robert's Lake, Laguna Grande, Canyon Del Rey Creek, and Frog Pond. In general, stormwater would flow from the surface of the new paved Trail segments to the adjacent, unpaved greenway areas located adjacent to the proposed Trail.

Construction equipment staging and stockpiling would take place in existing disturbed areas along the Trail corridor or in existing parking lots, as shown in **Figure 2-18** in **Section 2, Project Description**, and there would be no staging adjacent to drainages or wetlands. All equipment and materials would be stored, maintained, and refueled in designated portions of the staging areas in accordance with CWA permit requirements.

Construction of the project may result in soil erosion due to earth-moving activities such as excavation, grading, soil compaction and movement, soil stockpiling, and slope modification. Although the project corridor is largely flat in nature, runoff during a large storm event may occur as sheet flow across the Trail segments. This runoff has the potential to result in substantial amounts of erosion, resulting in off-site sediment transport via stormwater. The types of pollutants contained in runoff from construction sites along the project corridor may include sediments and contaminants such as oils and fuels from construction equipment. Additionally, existing pollutants that may be present within the project area, including nutrients, pesticides, herbicides, trace metals,

and hydrocarbons, can attach to sediment and be transported downstream through erosion to nearby drainages or into the Monterey Bay, contributing to degradation of water quality.

Construction of the project may also result in the accidental release of hazardous materials such as diesel fuel, gasoline, lubricant oils, hydraulic fluid, antifreeze, transmission fluid, cement slurry, and other fluids required for the operation of construction vehicles or equipment. Motorized equipment used throughout the project area during construction could also leak these hazardous fluids due to inadequate or improper maintenance, unnoticed or unrepaired damage, improper refueling, or operator error. These accidentally released or leaked hazardous materials could directly or indirectly impact water quality, including Canyon Del Rey Creek, Laguna Grande, Roberts Lake and Frog Pond. Indirect impacts could occur through runoff during a subsequent storm event, when the spilled material could come in contact with or be washed into flowing water and eventually enter these nearby water bodies or the Monterey Bay. Similarly, groundwater could be contaminated through direct or indirect contact with potentially harmful or hazardous materials.

Throughout project implementation, the construction of any project segment or portion thereof that would disturb over one acre² would be subject to the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2012-0006-DWQ) adopted by the SWRCB. Compliance with the permit requires each qualifying development project to file a Notice of Intent with the SWRCB. Permit conditions require development of a SWPPP that must describe the project area, the facility, erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of construction sediment and erosion control measures, maintenance responsibilities, and non-stormwater management controls. Inspection of construction sites before and after storms is also required to identify stormwater discharge from the construction activity and to identify and implement erosion controls, where necessary.

If any segment that would be constructed would be less than one acre in size, the project would be required to comply with the Construction Best Management Practices Handbook (Monterey County, 2015) and the Monterey Peninsula Region Stormwater Resource Plan (Monterey One Water 2018), with the exception of segments within the City of Marina; these segments would comply with the City of Marina Stormwater Management Program (City of Marina 2014). Similar to the SWPPP, measures included in the measures within these plans and programs would minimize any erosion or sedimentation, or any impacts that may result in the degradation of local water quality.

Implementation of the required SWPPP or Construction Best Management Practices/Stormwater Management Program measures would reduce the potential for eroded soil and any contaminants attached to that soil to contaminate a waterbody following a storm event. Implementation of mitigation to develop a spill response plan and an environmental training program and to properly maintain vehicles and equipment would further reduce the risk of water quality degradation through the accidental release or leak of hazardous materials.

Compliance with the NPDES-required SWPPP or Construction Best Management Practices/Stormwater Management Program measures would reduce the risk of water degradation on- and off-site from soil erosion and other pollutants related to construction activities. However, additional mitigation is required to ensure that vehicles are properly maintained, an appropriate spill response plan is developed, and drainage improvements are properly designed.

² This estimate is based on the length of the shortest segment (Ryan Ranch segment at approximately 1.43 miles in length) and the assumed disturbance area (28 feet wide). $7,550.41 \text{ feet} \times 28 \text{ feet} = 211,411.2 \text{ sf}$ or 4.85 acres (1 acre = 43,560 sf).

Although implementation of the project would require compliance with either the NPDES developed SWPPP (for more than one acre of disturbance) or compliance with Monterey County's Construction Best Management Practices/City of Marina Stormwater Management Program measures (for less than one acre of disturbance), impacts to water quality may occur during construction of any Trail segment or portion thereof as a result of the misuse of construction vehicles and associated chemicals, inadvertent spills or leaks due to poorly maintained equipment, or poor drainage of the Trail alignments. This construction-phase impact of the proposed project would be less than significant with mitigation. Mitigation Measures HYD-1(a) through HYD-1(c), described below, would reduce this impact by requiring that vehicles be properly maintained and that a spill response plan be developed, and by requiring a design-level drainage analysis and measures to reduce runoff, which would minimize the potential for violating water quality standards and waste discharge requirements.

Operation

Once constructed, the project would result in a net increase of impervious surfaces from the new paved Trail. Asphalt pavement for the project would cover approximately 40.7 acres, or approximately 0.6 square mile, of the total 166,543 square miles of Monterey County. As a result, volumes or rates of discharge and associated pollutants in runoff would increase compared to current conditions, without implementation of appropriate BMPs and pollutant control measures. Compliance with the NPDES-required SWPPP or Construction Best Management Practices/Stormwater Management Program measures would reduce the risk of water degradation on- and off-site from soil erosion and other pollutants related to project operation because of the requirements to design, install, and maintain post-construction stormwater controls. However, additional mitigation is required to ensure that sufficient information regarding post-construction maintenance of stormwater controls is developed at the design stage of the project.

FORTAG would alter stormwater drainage as it relates to surface water runoff from the paved Trail. The project does not include any new paved parking areas, structures, or other large, concentrated impervious surfaces. The Trail would result in a substantial amount of new impervious surface, but the effect would be distributed throughout its 28-mile length. The impervious surface would be a maximum of 12 paved feet in width, with a two-foot-wide unpaved shoulder on both sides. In addition, for approximately 1.3 miles, the Trail would also include a side path comprised of four to eight feet of compacted native soil. Assuming a maximum of 12 feet of paved width for the entire 28-mile Trail, impervious surfaces would total 40.7 acres. This calculation is conservative because some portions of the Trail would be narrower than 12 feet, and the Trail through the Frog Pond Wetland Preserve in Del Rey Oaks would be a permeable surface. The relatively small amount of impervious surface area that the project would introduce relative to the total surface area of the Salinas Valley Groundwater Basin would be distributed along the entire project corridor, and would be no more than 12 to 16 feet wide at any given location.

In general, stormwater would flow from the paved Trail to the adjacent pervious areas. Where the Trail would be on-road or along existing paved areas, the existing stormwater drainage infrastructure would accommodate runoff from the Trail.

The existing conditions and Trail design are adequate to accommodate the addition of the proposed linear impervious surface area added by the project. The approximately 40 acres of added impervious surface area would be distributed linearly throughout the Trail's 28-mile length, thus minimizing runoff effects at any individual location. Therefore, no new or expanded stormwater

drainage facilities are required, and this impact would be less than significant. For additional discussion regarding impervious surfaces and drainage, refer to **Impact HYD-3** and **Impact HYD-4**.

The required Stormwater Control Plan in **Mitigation Measure HYD-1(d)** would describe stormwater quality management measures at an engineering-level of detail and would quantify the volume of stormwater that would be treated, and the volume of post-development runoff that would leave the project area during both average and peak flow conditions. This assessment would demonstrate, prior to the commencement of construction activities, that the proposed stormwater control measures would be properly maintained to meet applicable NPDES requirements. With implementation of the required mitigation and compliance with the NPDES-required SWPPP, this impact would be less than significant.

In summary, the construction and operational impacts of the project would be less than significant with mitigation. Implementation of **Mitigation Measures HYD-1(a)** through **HYD-1(d)** would reduce the impact on hydrology and water quality by ensuring that the amount and rate of on- and off-site stormwater runoff would be reduced to the maximum extent feasible, and that, where feasible, stormwater runoff would be treated prior to discharge off site.

Mitigation Measures

HYD-1(a) Prepare Accidental Spill Control Plan and Conduct Environmental Training prior to Construction

Prior to commencement of construction activities and under the direction of the implementing entity, the construction contractor shall prepare a Spill Response Plan (SRP) and Spill Prevention, Control and Countermeasure Plan (SPCC) for the segment, which shall apply to the construction phase of each segment or portion thereof. These plans shall include procedures for quick and safe clean-up of accidental spills; shall prescribe hazardous materials handling procedures for reducing the potential for a spill during construction; and shall include an emergency response program to ensure quick and safe clean-up of accidental spills and proper disposal of contaminants. The plans shall be reviewed and approved by the local jurisdiction with oversight prior to construction commencement.

Additionally, prior to the onset on construction activities for each segment or portion thereof, the contractor shall conduct an environmental training program to communicate the risk for accidental spills, environmental concerns and appropriate work practices, including spill prevention and response measures, to all field personnel prior to construction. A construction inspector or monitor shall ensure a copy of these plans are kept at construction staging areas or other location accessible and frequented by the construction crew, and shall ensure that the plans are followed during all construction activities.

HYD-1(b) Maintain Vehicles and Equipment During Construction

All construction vehicles and equipment, including all hydraulic hoses, shall be maintained in good working order to minimize leaks and contact the ground. A construction inspector or monitor shall check the vehicles and equipment and maintain vehicle equipment logs on a monthly basis for the duration of project construction. This measure applies to construction all FORTAG segments or portions thereof.

HYD-1(c) Conduct Design-Level Drainage Analysis Prior to Construction, and Implement Identified Measures to Minimize Runoff During Construction

Prior to the commencement of construction activities for each segment or portion thereof, the implementing entity shall retain a qualified registered professional engineer to conduct a design-level drainage analysis that identifies existing drainage patterns across the project corridor, stormwater discharge locations on- and off-site, and stormwater control measures to implement during construction of the project. Where feasible, the drainage analysis shall quantify the existing and predicted post-construction peak runoff rates and amounts, both on-site and off-site, immediately downgradient of the project corridor. The drainage analysis shall identify any changes to the location of down-gradient discharge of stormwater runoff and any potential impacts to off-site property that would result from those changes to ensure drainage patterns are not substantially altered through project implementation, and that none of the overcrossings or undercrossing structures that are part of the project have impeded flood flows. The stormwater control measures to be implemented during construction shall also include or be consistent with measures identified to satisfy the erosion and runoff control standards of the NPDES-required SWPPP or County-required Construction Best Management Practices/Stormwater Management Program measures. The identified stormwater control measures shall be installed when appropriate during the construction process, including during grading, initial site preparation, excavation, and construction, as necessary, to control stormwater runoff and erosion during all phases of the construction process.

HYD-1(d) Prepare Stormwater Control Plan Prior to Construction and Implement Identified Stormwater Control Measures

Prior to commencement of construction activities for each segment or portion thereof, the implementing entity shall retain a registered professional engineering to prepare a Stormwater Control Plan, addressing the post-construction stormwater best management practices to be implemented along the project corridor. The plan shall include:

- The location of the stormwater control measures and details regarding their size and materials. Stormwater control measures shall be developed to maximize on-site infiltration of stormwater and minimize off-site stormwater discharge during operation of the project.
- A site map identifying all structural Stormwater Control Measures requiring operations and maintenance practices to function as designed.
- A description of all Stormwater Control Measures requiring operations and maintenance practices.
- Short- and long-term maintenance requirements, frequency of maintenance recommendations, and cost for maintenance estimations for each Stormwater Control Measure.

The Stormwater Control Plan shall specify that all recommended annual maintenance shall be completed by October 15 of each year to ensure compliance with all CWA permitting and reporting requirements. The frequency of maintenance activities that are not required on an annual basis shall be specified in the Stormwater Control Plan. The Stormwater Control Plan shall also demonstrate that with implementation and proper maintenance of the proposed stormwater control measures, all NPDES post-construction stormwater requirements would be met.

Significance After Mitigation

This impact would be less than significant with mitigation.

Threshold 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?

Impact HYD-2 THE PROJECT WOULD NOT DEplete GROUNDwater SUPPLIES OR SUBSTANTIALLY INTERFERE WITH GROUNDwater RECHARGE. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

As noted in **Section 4.16.1, Existing Conditions**, water supply in Monterey County is strained, with major projects underway and proposed to address the region's long-term demand. Because construction activities would move along the FORTAG corridor and would traverse the service areas of multiple water suppliers, different segments of construction would receive trucked water from different local water retailers, which may include CalAm, California Water Service Company, Seaside Municipal Water System, and/or Marina Coast Water District. The supplies for these water retailers are sourced from the underlying Salinas Valley Groundwater Basin, the Carmel River, recycled municipal supplies, and desalinated water. The region is currently investing in additional water supply projects, such as the Monterey Peninsula Water Supply Project, to expand its water resources.

Water demand during construction activities would be temporary and limited to the construction period. The majority of demand would result from dust suppression spraying, which would only be required for exposed soil during certain construction activities and wind exposure conditions. Construction water would be purchased from a local water retailer and trucked to the project site. A conservative estimate for water demand during construction was generated using the California Emissions Estimator Model (CalEEMod Version 2016.3.2; refer to Appendix D). The proposed project would require approximately 2.85 million gallons of water throughout construction for the entire Trail alignment. This amounts to 948,123 gallons per year, or 2,597 gallons per day.

Water demand for construction would be split between the different jurisdictions' water suppliers serving the project area where the Trail would be constructed, thus limiting the demand on any one jurisdiction, retailer or supply source. Recycled water could be used for dust control, thereby minimizing the demand for potable water.

After construction is complete, the project would not generate water demand. Therefore, the project would not require or result in the relocation or construction of new or expanded water facilities and would not generate water demand in excess of existing water supplies. Furthermore, water demand during construction would be a temporary effect. The incorporated cities that FORTAG would traverse demand approximately 4.6 million gallons of water per day, based on a total population of approximately 80,000 people using 58 gallons per day (MPWMD 2019b). A temporary demand of 2,597 gallons per day would represent only an incremental increase in water demand in the region, and would not require new or relocated facilities, or result in substantial impacts to groundwater sources.

Implementation of the project may also interfere with groundwater recharge by introducing approximately 40.7 acres, or 0.6 square miles of new impervious surfaces, as described under **Impact HYD-1** above, through the construction of the Trail segments or portions thereof. The Salinas Valley Groundwater Basin underlies the entirety of the project corridor, including the alignment design options, and spans an area of over 800 square miles with a storage capacity of

19,750,000 AF, as described above under **Section 4.10.1, Existing Conditions**. The relatively small amount of impervious surface area that the project would introduce relative to the total surface area of the Salinas Valley Groundwater Basin would be distributed along the entire project corridor, and would be no more than 12 to 16 feet wide at any given location.

The dispersed nature of the new impervious surface would ensure that the infiltration capacity of the Salinas Valley Groundwater Basin would not be substantially altered compared to existing conditions. Rainfall that could have infiltrated in the project footprint prior to the introduction of new impervious surface area would leave the paved portion of the Trail as runoff, but would have the same infiltration potential on adjacent lands as it did prior to implementation of the project. The unpaved portion of the Trail would have a similar infiltration capacity compared to pre-construction conditions. The infiltration capacity of the unpaved portion of the Trail would depend on the characteristics of any imported soil or decomposed granite and the level of compaction to be achieved.

This impact of the proposed project would be less than significant because new impervious surfaces would occupy a small percentage of the surface area of underlying groundwater basin and would not substantially alter the infiltration capacity of that basin, and because the total amount of groundwater that may be purchased for construction activities would be minimal and would not deplete groundwater sources. No mitigation is required.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

This impact would be less than significant without mitigation.

Threshold 3a: 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?

Threshold 3c: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Impact HYD-3 THE PROJECT WOULD ALTER DRAINAGE PATTERNS IN THE PROJECT CORRIDOR, WHICH MAY IMPACT WATER QUALITY. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

The project would result in minor alteration of the existing drainage patterns throughout the project corridor through the introduction of new impervious surfaces (paved Trail), as described under **Impact HYD-1**.

The introduction of new impervious surfaces could increase the rate and/or amount of surface runoff, redirect runoff to different discharge locations, or concentrate runoff from sheet flow to channelized flow. The rate and amount of surface runoff is determined by multiple factors, including the amount and intensity of precipitation, amount of other imported water that enters a watershed, and amount of precipitation and imported water that infiltrates to the groundwater. Infiltration is

also determined by several factors, including soil type, antecedent soil moisture, rainfall intensity, topography, and amount of impervious surfaces in a watershed. The rate of surface runoff is largely determined by topography and the intensity of rainfall over a given period of time.

FORTAG would not alter precipitation amounts or intensities, nor would it involve irrigation or other new sources of runoff water. However, Trail construction would include earth-disturbing activities that may affect site-specific infiltration and permeability during construction (temporary) and during operation (permanent), as the addition of the impermeable surface of each Trail segment or portion thereof would be introduced throughout the project corridor. Temporary changes to on-site permeability would be minimal and limited to covered stockpiles and temporarily compacted soils. Permanent impervious areas that would be introduced by the project include the paved Trail. In addition, soil compaction for the unpaved portions of the Trail, including the shoulders and equestrian side paths, where included, would likely result in long-term changes to the infiltration capacity of those permeable surfaces.

In addition to increasing the amount of total annual runoff, the introduction of impervious surfaces would increase the rate of peak runoff leaving the project corridor. Increases in the amount and rate of runoff could result in increased erosion and sediment transport off-site. The potential erosion and sedimentation impact of increased runoff are discussed above under Impact HYD-1. The magnitude of change in peak runoff that would result from implementation of the project is unknown at this time, but would be controllable through implementation of appropriate stormwater control measures, including **Mitigation Measure HYD-1(c)** requiring the identification of the existing drainage pattern across the project corridor, and **Mitigation Measure HYD-1(d)** requiring completion of a Stormwater Control Plan prior to commencement of construction activities. The Stormwater Control Plan would result in the development and implementation of measures to reduce post-development peak runoff both on- and off-site.

In addition to changing the amount and rate of on- and off-site runoff, construction and operation of the project would result in changes to drainage patterns along the project corridor and discharge locations for off-site runoff. Grading for construction of the Trail segments would alter on-site topography, which would alter on-site drainage patterns. The presence of a paved Trail with associated Trail bed fill material, where necessary, would redirect runoff along and across the alignment. The current drainage patterns throughout most of the project corridor are already highly-altered, as discussed in **Section 4.10.1, Existing Conditions**. There would be no changes in any drainages throughout the project corridor as a result of project implementation. Furthermore, surface flows across the marine terraces are already disturbed by the presence of urban and agricultural development, and roadways.

The impact of the project would be less than significant with mitigation. Compliance with the NPDES-required SWPPP or Monterey County-require Construction Best Management Practices/City of Marina Stormwater Management Program measures, as well as implementation of **Mitigation Measures HYD-1(c)** and **HYD-1(d)** described above, would ensure the project would not result in the discharge of stormwater that would result in off-site erosion or flooding or exceed the stormwater conveyance capacity of existing or planned stormwater drainage systems. The stormwater control measures would be maintained throughout the operational life of the project, ensuring that no expansion of the regional stormwater drainage system would be required.

Mitigation Measures

HYD-1(c) Conduct Design-Level Drainage Analysis and Minimize Runoff During Construction

Mitigation Measure HYD-1(c) text is included under **Impact HYD-1** above.

HYD-1(d) Prepare Stormwater Control Plan and Operation and Maintenance Plan Prior to Construction and Implement Identified Stormwater Control Measures

Mitigation Measure HYD-1(d) text is included under **Impact HYD-1** above.

Significance After Mitigation

This impact would be less than significant with mitigation.

Threshold 3b: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Threshold 3d: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

Impact HYD-4 THE PROJECT WOULD ALTER DRAINAGE PATTERNS IN THE PROJECT CORRIDOR, WHICH MAY IMPACT FLOOD FLOWS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

The majority of the proposed FORTAG alignment is outside the 100-year flood hazard area, as shown in **Figure 4.10-2**. However, the project would place a paved Trail within a 100-year flood hazard area along the Canyon Del Rey/SR 218 alignment, as described in **Section 4.10.1, Existing Conditions**. The project infrastructure with the potential to impede or redirect flood flows would be limited to the paved Trail with associated Trail bed fill material, in an area where there are no proposed over/under crossings. These improvements would not substantially alter the drainage patterns in the 100-year floodplain, as all surface waters would continue to flow into Canyon Del Rey Creek, Laguna Grande, Roberts Lake, and Frog Pond through the existing stormwater system or natural geographic features that support the surrounding developed land uses for these water features. The addition of a paved Trail with associated Trail bed fill material, where necessary, would not substantially impede or redirect flood flows compared to existing conditions. Implementation of **Mitigation Measures HYD-1(c) and HYD-1(d)**, described above, which would ensure that drainage patterns are not substantially altered. With implementation of these measures, the project would not impede or redirect flood flows that could expose people or structures to a significant risk of loss, injury, or death involving flooding, and this impact would therefore be less than significant with mitigation.

Mitigation Measures

HYD-1(c) Conduct Design-Level Drainage Analysis and Minimize Runoff During Construction

Mitigation Measure HYD-1(c) text is included under **Impact HYD-1** above.

HYD-1(d) Prepare Stormwater Control Plan and Operation and Maintenance Plan Prior to Construction and Implement Identified Stormwater Control Measures

Mitigation Measure HYD-1(d) text is included under **Impact HYD-1** above.

Significance After Mitigation

This impact would be less than significant with mitigation.

Threshold 4: In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Impact HYD-5 TRAIL USERS MAY BE SUBJECT TO THE RELEASE OF POLLUTANTS BY TSUNAMI OR SEICHE, BUT THE PROJECT WOULD NOT EXACERBATE THE RISK OF INUNDATION BY TSUNAMI OR SEICHE COMPARED TO EXISTING CONDITIONS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Implementation of the proposed project would not include the construction of housing, or commercial or industrial structures, and therefore would not increase the permanent risk of inundation by tsunami or seiche for people living or working within the project corridor. Therefore, the project would not exacerbate the severity of this existing environmental hazard. In addition, as discussed in **Section 4.10.1, Existing Conditions**, the elevation and steep cliffs of the marine terrace limit the extent of tsunami and seiche inundation to relatively small areas along the Canyon Del Rey/SR 218 alignment (California Emergency Management Agency 2009a, 2009b, 2009c). Therefore, the potential for inundation of the Trail by tsunami or seiche and the associated risk to Trail users would be very low.

The project corridor and specifically the Canyon Del Rey/SR 218 and National Monument Loop segments already support recreational activities such as hiking, biking, equestrian use, and active parks with playgrounds and picnic areas. Implementation of FORTAG would increase recreation throughout the project corridor by providing an additional recreational opportunity (new Trail). Exposure of persons to pollutants released by inundation caused by tsunami or seiche would be temporary and limited to the duration of Trail use throughout the Canyon Del Rey/SR 218 segment.

The topography of the project corridor is generally flat and does not support major drainages, although there are a couple portions with steeper slopes as described in **Section 4.7, Geology and Soils**. The most prominent water system throughout the project corridor is Canyon Del Rey Creek that flows from the Frog Pond Wetland Preserve through Laguna Grande and Roberts Lake along the Canyon Del Rey/SR 218 segment. Although this drainage supports water throughout the entire year, flows are largely dependent on runoff from local residences. The system also does not support a large sediment load, as the creek has been highly channelized and contains areas with unnatural bed and banks. Therefore, due to the topography and hydrology of the creek, inundation by mudflow is unlikely throughout this Trail segment. Therefore, the risk of pollutant exposure is low along the project corridor.

Because there is low potential for inundation of the Trail by mudflow, and the potential for inundation by tsunami and/or seiche is low, implementation of the project would not increase long-term exposure of Trail users to pollutants as a result of project corridor inundation by seiche, tsunami, or mudflow. This impact would be less than significant. No mitigation is required.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

This impact would be less than significant without mitigation.

Threshold 5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Impact HYD-6 THE PROJECT WOULD NOT CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF A WATER QUALITY CONTROL PLAN OR SUSTAINABLE GROUNDWATER MANAGEMENT PLAN. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

Surface water and groundwater quality are regulated through the Basin Plan and the Monterey County Groundwater Management Plan, respectively, as discussed above in **Section 4.10.1, Existing Conditions**. These plans have been developed to ensure the long-term sustainability and quality of waters throughout Monterey County to support the drinking water supply, as well as industrial demand, including local agricultural production.

As discussed under **Impacts HYD-1, HYD-2 and HYD-3**, changes in the surface flows and infiltration rates throughout the project corridor would occur as a result of project implementation and the addition of the new impervious Trail surface (40.7 acres, or 0.6 square miles). Although the addition of the impervious surface that would be added throughout the project corridor from the Trail would be small in relation to the total impervious area of developed Monterey County, implementation of the project would result in minor changes to the water quality and quantity of surface waters, and recharge rates of groundwater, throughout the project corridor.

Changes in water quality may also occur as a result of accidental spills and/or construction vehicles that are not properly maintained, resulting in impacts to both surface waters and groundwater, as discussed in **Impact HYD-1**.

Implementation of **Mitigation Measures HYD-1(a)** through **HYD-1(d)** would reduce the proposed project impacts on hydrology and water quality by ensuring that the amount, rate, and water quality of on- and off-site stormwater runoff would be largely preserved to those levels that occur currently throughout the project corridor. This includes measures to limit accidental spills that may occur as a result of construction activities or maintenance of construction vehicles. Ongoing monitoring activities would also be implemented as a result of these mitigation measures to ensure the preservation of stormwater flows over time. Therefore, implementation of the project would not conflict with or obstruct with the implementation of a water quality control plan or sustainable groundwater management plan. This impact would be less than significant with mitigation.

Mitigation Measures

HYD-1(a) Prepare Accidental Spill Control Plan and Conduct Environmental Training prior to Construction

Mitigation Measure HYD-1(a) text is included under **Impact HYD-1** above.

HYD-1(b) Maintain Vehicles and Equipment During Construction

Mitigation Measure HYD-1(b) text is included under **Impact HYD-1** above.

HYD-1(c) Conduct Design-Level Drainage Analysis and Minimize Runoff During Construction

Mitigation Measure HYD-1(c) text is included under **Impact HYD-1** above.

HYD-1(d) Prepare Stormwater Control Plan and Operation and Maintenance Plan Prior to Construction and Implement Identified Stormwater Control Measures

Mitigation Measure HYD-1(d) text is included under **Impact HYD-1** above.

Significance After Mitigation

This impact would be less than significant with mitigation.

4.10.5 Cumulative Impact Analysis

The geographic scope for the cumulative analysis of hydrology and water quality includes the Salinas River and Canyon Del Rey watersheds. As shown in **Table 3-1, Cumulative Projects List**, in **Section 3, Environmental Setting**, numerous development projects are anticipated in the vicinity of the FORTAG study area. The projects that are listed in **Table 3-1** include residential, commercial and other development that would result in the use of additional water resources throughout Monterey County as a result of both construction activities and long-term use by the planned land uses and growing population that would utilize the anticipated projects. The planned development would also result in the addition of impervious surfaces within this cumulative impact area, which would modify existing drainages and alter groundwater recharge.

Cumulative development in Monterey County allowable under the Monterey County General Plan would also increase impermeable surfaces, which could increase runoff, exacerbate flooding conditions, and reduce groundwater recharge. The impacts of increased impervious surface (e.g., increased runoff, altered drainage patterns, decreased water quality) would be reduced through adherence to the NPDES General Construction Permit administered by the State Water Resources Control Board. Every construction project that disturbs one or more acres of land surface or that is part of a common plan of development or sale that disturbs more than one acre of land surface would require coverage under the Construction General Permit. For projects less than one acre in size, Monterey County requires the implementation of Countywide BMPs to protect water quality, as discussed above in **Section 4.10.1, Existing Conditions**. Compliance with these regulations would reduce impacts, but it cannot be determined conclusively that they would be reduced to a less than significant level without additional mitigation, such as preparing an accidental spill control plan, properly maintaining construction equipment and vehicles, and conducting design-level drainage

analyses and stormwater control plan. Therefore, cumulative hydrology and water quality impacts are presumed to be significant but mitigable.

The proposed FORTAG project would not place habitable structures in a 100-year flood hazard area nor result in a land use requiring an ongoing water supply or a permanent increase in the population of Monterey County that would require a permanent increase in water use. However, as discussed above under **Impact HYD-2**, the purchase of groundwater may occur, as needed, for construction activities, to ensure that limited water resources in Monterey County are protected. Furthermore, the relatively small amount of impervious surface area that the project would introduce (0.6 square mile) relative to the total surface area of Monterey County (166,543 square miles) would be distributed along the entire project corridor, and would be no more than 12 feet wide, at any given location. Mitigation measures have been also been incorporated into the project to further protect the water quality of surface and groundwater resources within the project corridor.

Therefore, with mitigation, the proposed FORTAG project would not result in a substantial increase of pollutant discharges to local water sources, alteration of drainage patterns in the project corridor, or otherwise result in a substantial contribution to cumulative impacts, and thus would not be cumulatively considerable.

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4.11 Land Use and Planning

This section identifies and evaluates impacts related to land use and planning that may arise through implementation of FORTAG. Existing land uses along the FORTAG corridor and applicable land use policies and regulations are described in this section. The overall consistency of FORTAG has been assessed in relation to applicable land use plans, policies, and regulations pertaining to environmental resources.

4.11.1 Existing Conditions

Monterey County covers more than 3,300 square miles of urban, rural, and resource conservation lands. The County is bordered by beaches and coastal bluffs along the Monterey Bay, and backed by coastal mountains and valleys to the east. Land uses in the County are predominately agricultural, which accounts for approximately 60 percent of the total land area. This is followed by public and quasi-public uses, approximately 28 percent, which includes educational, transportation, religious, recreational, and military facilities (Monterey County 2010). The remainder of the County contains residential, commercial, and industrial development. The majority of the population in the County is located in the urbanized areas, such as the cities of Del Rey Oaks, Marina, Monterey, and Seaside along the Monterey Bay, and the City of Salinas.

Regional Land Uses

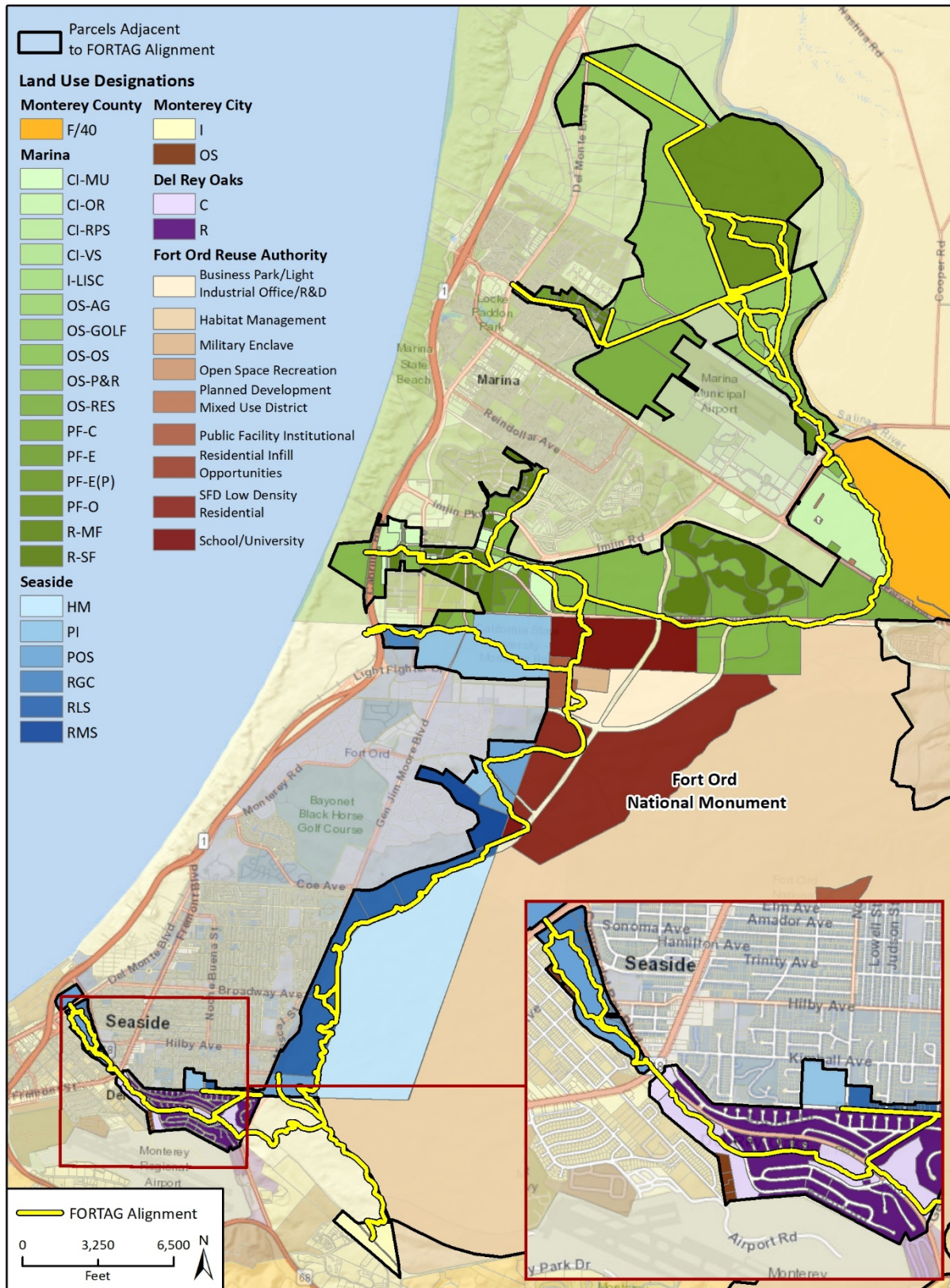
The FORTAG corridor is located in northwestern Monterey County, traversing sections of the cities of Marina, Seaside, Del Rey Oaks, and Monterey, as well as unincorporated Monterey County. Certain portions of the project corridor are within or adjacent to areas managed by California State University, Monterey Bay (CSUMB), the Fort Ord Reuse Authority (FORA), the U.S. Army, the California Department of Transportation (Caltrans), the University of California Santa Cruz, Pacific Gas & Electric (PG&E), and the Monterey Peninsula Regional Park District.

Monterey County has a total population of approximately 436,000 people (U.S. Census Bureau 2018). Existing uses along the FORTAG corridor are varied and consist of urbanized, agricultural, institutional, and open space areas. Most of the segments of the Trail would be parallel to or nearby existing roads, and existing trails and roadways would be used for the Trail where possible. The Trail would connect to the existing Monterey Bay Coastal Recreation Trail (Coastal Rec Trail), which mostly runs along the coastline following the same route as the old Southern Pacific Railway.

FORTAG Corridor Land Uses

The proposed FORTAG alignment would include approximately 28 miles of new paved trail, primarily on the inland side of SR 1. As shown in **Figure 4.11-1**, land uses along the FORTAG corridor include agricultural, coastal, institutional and public (such as the CSUMB campus and the Marina Municipal Airport), open space, and developed areas with a mix of residential and commercial uses. The northern Trail segments (Northern Marina and Northern Loop segments) are located in the City of Marina; central portions of the Trail (CSUMB Loop North, CSUMB South, and the National Monument Loop segments) are located in the City of Seaside and within the former Fort Ord; and southern Trail segments (Canyon Del Rey/SR 218 and Ryan Ranch segments) are located in the cities of Del Rey Oaks and Monterey, including some within the former Fort Ord. **Table 4.11-1** lists the land use designation codes and definitions for the parcels adjacent to the FORTAG corridor.

Figure 4.11-1 Land Use Designations Adjacent to the FORTAG Alignment



Imagery provided by ESRI and its licensors © 2019. Land Use data provided by Monterey County, City of Monterey, City of Seaside, City of Marina, and Fort Ord Reuse Authority, 2019. Additional data provided by Alta Planning + Design, 2019.

Fig 4.11-1 Land Use Designations

Table 4.11-1 Definitions of Land Use Designations Adjacent to the FORTAG Alignment

Land Use Designations	Definition
Monterey County	
F/40	Farmlands 40-160 Acre Min
City of Marina	
CI-MU	Commercial Mixed Use
CI-OR	Commercial Office/Research
CI-RPS	Commercial Retail/Service
CI-VS	Commercial Visitor Serving
I-LISC	Industrial Light/Service Commercial
OS-AG	Open Space Agriculture
OS-GOLF	Open Space Golf Course
OS-OS	Open Space Other Open Space
OS-P&R	Open Space Parks and Recreation
OS-RES	Open Space Habitat Reserve
PF-C	Public Facilities Civic
PF-E	Public Facilities Education
PF-E(P)	Public Facilities Education (Proposed)
PF-O	Public Facilities Other
R-MF	Residential Multi-Family
R-SF	Residential Single Family
City of Seaside	
HM	Habitat Management
PI	Public/Institutional
POS	Park and Open Space
RGC	Regional Commercial
RLS	Low Density Single Family Residential
RMS	Medium Density Single Family Residential
City of Monterey	
I	Industrial
OS	Open Space
City of Del Rey Oaks	
C	Commercial
R	Residential
Fort Ord Reuse Authority	
Business Park/Light Industrial Office/R&D	
Habitat Management	
Military Enclave	
Open Space Recreation	
Planned Development Mixed Use District	
Public Facility Institutional	
Residential Infill Opportunities	
Single Family Development (SFD) Low Density Residential	
School/University	

Source: Land use designation definitions for the cities of Marina, Seaside, Del Rey Oaks, Monterey, Fort Ord Reuse Authority, and Monterey County

Zoning designations for parcels adjacent to the FORTAG corridor are outlined and shown in **Figure 4.11-2** and definitions for zoning abbreviations for parcels adjacent to the FORTAG alignment are listed in **Table 4.11-2**. A majority of the zoning districts on County parcels adjacent to the FORTAG alignment consist of permanent grazing (PG) or public/quasi public (PQP) districts. Zoning districts adjacent to the FORTAG alignment within the City of Marina are varied as the areas through which the Trail segments would traverse are developed. The majority of the zoning districts in the City of Seaside adjacent to the FORTAG alignment consist of open space (for conservation or recreation), with select areas containing military, commercial, and residential districts. Adjacent parcels in the City of Monterey contain industrial and open space districts, and adjacent parcels in the City of Del Rey Oaks consist of commercial and residential districts.

4.11.2 Regulatory Setting

a. State

California Coastal Act

The California Coastal Act, enacted in 1976, establishes procedures for the review of proposed developments in the coastal zone and policies for the protection of coastal resources and public access to the coastline. There are a number of Coastal Act regulations in the Public Resources Code that pertain to land use and planning. These include articles that protect the coastal lands and natural resources that they support, while providing public access to the greatest extent possible. There are also provisions for providing the appropriate number and distribution of public facilities to support the continuous population growth in California. These include recreational opportunities such as trails.

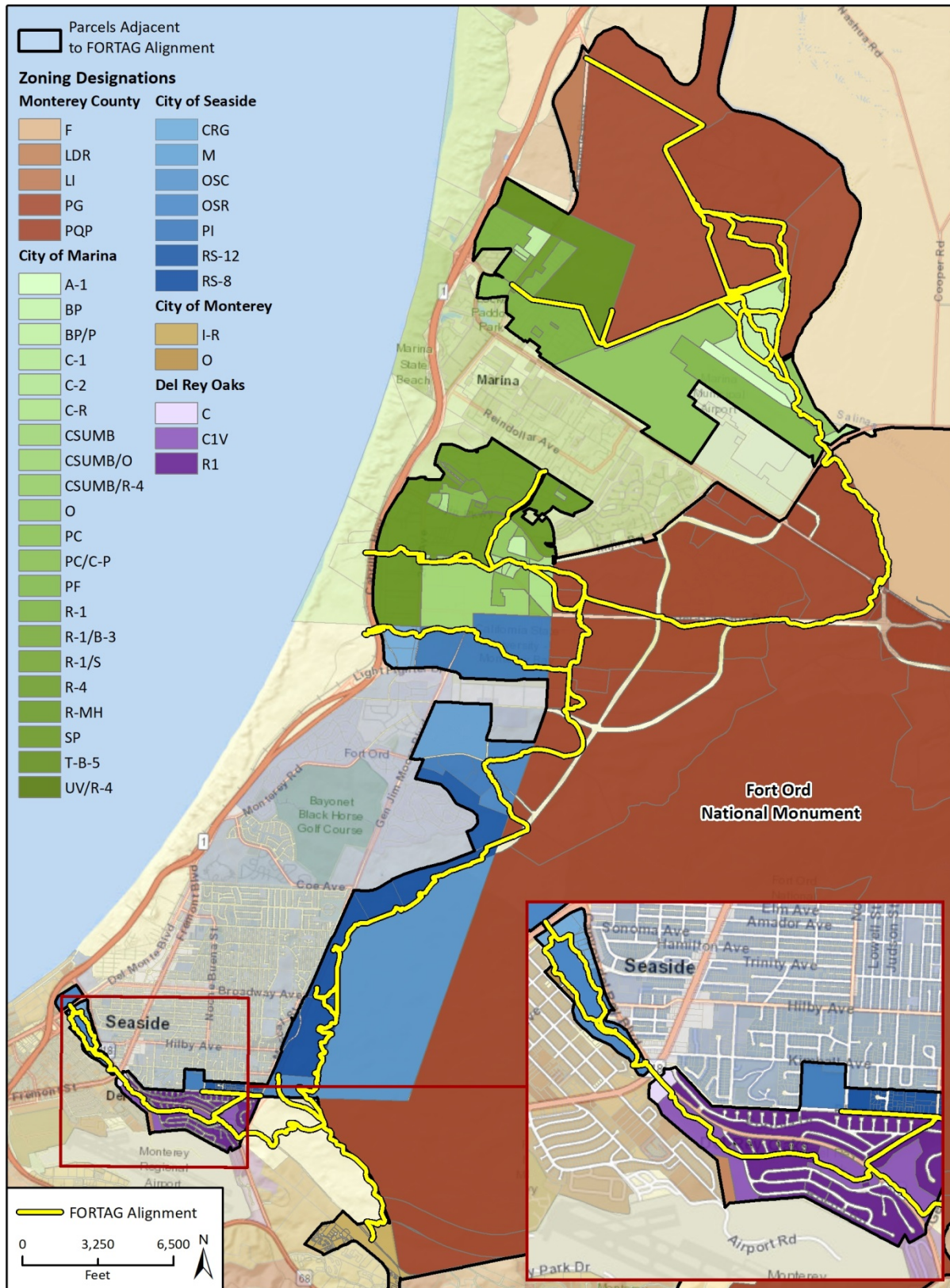
The California Coastal Commission (CCC) is responsible for implementation and oversight of the California Coastal Act and would serve as the responsible entity in assessing the FORTAG project's Federal Consistency Determination. The Coastal Act delegates power to local governments to enact their own Local Coastal Plans (LCPs). These local programs govern the short- and long-term use of coastal resources within their respective jurisdictions, consistent with the goals of the Coastal Act. LCPs that are applicable to the project corridor are further noted below under local regulatory setting.

b. Regional

1997 Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California

The Installation-Wide Multispecies Habitat Management Plan (HMP) for former Fort Ord establishes the guidelines for the conservation and management of wildlife and plant species and habitats present on Fort Ord land (USACE 1997). There are no resource conservation requirements for the borderland development areas along the natural resource management area (NRMA) interface on former Fort Ord lands. However, the Fort Ord Reuse Authority (FORA) or other land recipients are responsible for interim management of developable natural lands before actual planned development is determined. Management requirements along the interface include the development of firebreaks and limitation of vehicle access.

Figure 4.11-2 Zoning Designations Adjacent to the FORTAG Alignment



Imagery provided by ESRI and its licensors © 2019.
 Zoning data provided by Monterey County, City of Monterey, City of Del Rey Oaks, City of Seaside, and City of Marina, 2019. Additional data provided by Alta Planning + Design, 2019.

Table 4.11-2 Definitions of Zoning Designations Adjacent to the FORTAG Alignment

Zoning Code	Definition
Monterey County	
F	Farmland
LDR	Low Density Residential
LI	Light Industrial
PG	Permanent Grazing
PQP	Public/Quasi Public
City of Marina	
A-1	Airport/Aviation Related
BP	Business Park
BP/P	Business Park
C-1	Retail Business
C-2	General Commercial
C-R	Commercial Residential
CSUMB	Master Plan/CSUMB
CSUMB/O	Open Space
CSUMB/R-4	Multi-Family Residential
O	Open Space
PC	Planned Commercial
PC/C-P	Planned Commercial/Coast
PF	Public Facility
R-1	Single Family
R-1/B-3	Single Family/Large Lot
R-1/S	Single Family/Integrated
R-4	Multi-Family Residential
R-MH	Marina Heights Residential
SP	Specific Plan/UV
T-B-5	Transitional
UV/R-4	Multi-Family Residential
City of Seaside	
CRG	Regional Commercial
M	Military
OSC	Open Space Conservation
OSR	Open Space Recreation
PI	Public/Institutional
RS-12	Single-Family Residential
City of Monterey	
I-R	Industrial
O	Open Space
City of Del Rey Oaks	
C	Commercial
C1V	Neighborhood Commercial with a Visitor Overlay
R1	Single Family Residential
RS-8	Single-Family Residential
Source: Municipal codes for the cities of Marina 2019; Seaside, Del Rey Oaks, and Monterey, and Monterey County	

1997 Fort Ord Reuse Authority Base Reuse Plan

FORA adopted the Base Reuse Plan (BRP) in June 1996, and a revised version of the BRP was published in digital format in September 2001 and March 2018, incorporating various corrections and errata. FORA prepared the BRP pursuant to provisions of Senate Bill 899 (FORA 1996), and is the guiding policy document for the reuse and redevelopment of the former Fort Ord, with an emphasis on job creation, environmental preservation, education, and a jobs/housing balance. Under state law, FORA oversees planning, financing, and implementing reuse and recovery programs described in the BRP. Volume II of the BRP includes six elements, including: Land Use, Circulation, Recreation and Open Space, Conservation, Noise, and Safety. Each of the elements includes a summary of existing conditions, focused objectives, and policies and programs for each jurisdiction.

The FORTAG corridor would traverse the cities of Marina, Seaside, Monterey, Del Rey Oaks, and Monterey County; land use designations in these jurisdictions which the FORTAG corridor would cross are further discussed below under local regulatory setting. According to Figure 4.1-6, *City of Seaside Land Use Concept*, and Figure 4.1-7, *County of Monterey Land Use Concept*, of the BRP, the majority of the National Monument Loop and Ryan Ranch segments would be adjacent to former Fort Ord lands designated with habitat management use, currently in the jurisdictions of the City of Seaside and Monterey County. BRP Figure 3.6-3, *Open Space & Recreation Framework*, also shows select areas that have limited or restricted access within the Fort Ord National Monument area. Portions of the alignments for the National Monument Loop and Ryan Ranch segments would be adjacent to limited access open space-habitat management areas.

The BRP Land Use Element offers a broad discussion of land use issues, constraints, and opportunities for development within former Fort Ord. The element provides goals and policies aimed at achieving orderly growth by setting general designations for the location, extent, intensity, and distribution of specified land uses. The following recreation/open space land use objectives from the BRP Land Use Element are relevant to FORTAG:

- **Objective B:** Use open space as a land use link and buffer.
- **Objective C:** Reserve sufficient lands for regional, community, and neighborhood parks and recreation facilities in the Fort Ord area and adjacent communities.

The land use planning concepts, overall goals, policies, and programs to implement the BRP Land Use Element objectives were generated from specific issues and requirements identified by each neighboring jurisdiction, as well as an overall vision for reuse of the base developed on a more regional level. The BRP Land Use Element contains Recreation/OpenSpace Land Use Policy C-1, which states “The City shall designate sufficient area for projected park and recreation facilities at the former Fort Ord.” This policy is applicable to City of Marina, City of Seaside, and County of Monterey and relevant to the FORTAG project.

The BRP Recreation and Open Space Element contains goals and policies aimed at establishing an open space system that preserves and enhances the natural environment of former Fort Ord lands by providing a range of accessible recreational experiences for residents and visitors. BRP Recreation and Open Space Element Objective F states, “Create a unified system of hiker/biker and equestrian trails which links all sectors of the former Fort Ord and encourages alternative means of transportation,” which is relevant to the FORTAG project. Policies that support Objective F are as follows:

- **Recreation Policy F-1:**
 - The City of Marina shall adopt roadway standards which allow for the development or hiker/biker trails within the right-of-way where appropriate.
 - The City of Seaside and Monterey County shall reserve sufficient space within key transportation arterials to accommodate paths for alternative means of transportation.
- **Recreation Policy F-2:** The City shall encourage the development of alternative means of transportation for recreation and other travel. (Applicable to the City of Marina, City of Seaside, and Monterey County)

As stated in **Section 2, Project Description**, the Canyon Del Rey/SR 218 segment would follow an existing trail south and the west along the eastern and southern perimeter of the Frog Pond Wetland Preserve in Del Rey Oaks before crossing Canyon Dey Rey Boulevard. The BRP Conservation Element contains Biological Resources Policy A-8, which states, “The County shall maintain the quality of the habitat in the Frog Pond Natural Area.” Program A-8.2 aims to implement the policy by required appropriate firebreaks and barriers to prevent unauthorized vehicle access into the Frog Pond area. The program also states that no building or roadway is allowed in the buffer zone with the exception of picnic areas, trailheads, drainage facilities, and park district parking (FORA 1996).

FORA Regional Urban Design Guidelines

The *FORA Regional Urban Design Guidelines* (RUDG) were developed for FORA as directed by the BRP. They are refinements of existing BRP policy and were completed as a separate implementation action. The FORA Board unanimously adopted the RUDG in June 2016. The RUDG establishes standards for trail design, landscaping, signage, and other matters of visual importance. The RUDG provide jurisdictions, developers and the public guidance of matters of visual importance to the former Fort Ord reuse. The RUDG defines major trails as those having a minimum width of 12 feet with asphalt, concrete, or other paving alternative with comparable performance, and minor trails as those having a minimum width of 10 feet (FORA 2016). By this definition, most of the FORTAG alignment would qualify as a major trail; portions reduced from the majority 12-foot width (e.g., within the Frog Pond Wetland Preserve) would qualify as a minor trail.

Monterey Peninsula Regional Park District Master Plan

The Monterey Peninsula Regional Park District (MPRPD) Master Plan contains policies and an implementation strategy to establish and maintain long range goals for protection and use of open space, provided useful criteria for open space acquisition and management decisions, and disseminate public information about the District’s community partnership role (MPRPD 1998).

Select portions of the FORTAG corridor would traverse, connect to, or be in the vicinity of existing District parks. The Frog Pond Wetland Preserve is managed by MPRPD. The Canyon Del Rey/SR 218 segment would follow along the eastern and southern perimeter of the Frog Pond Wetland Preserve in the City of Del Rey Oaks. Other parks that would contain parts of the FORTAG trail are not discussed in this section since they are managed by other jurisdictions and agencies.

According to Policy 5.4 of the MPRPD Master Plan, trails are to be managed for pedestrian, bicycle, equestrian, or a combination of such non-motorized uses to or between existing public access lands. The policy further states that trails in the District may be developed as Class I, II, or III depending on the surrounding environment and may include support facilities such as trailhead parking, benches, and public information signs (MPRPD 1998).

Association of Monterey Bay Area Governments 2040 Regional Transportation Plan/Sustainable Communities Strategy

The Association of Monterey Bay Area Governments (AMBAG) is the federally designated metropolitan planning organization (MPO) for the counties of Monterey, San Benito, and Santa Cruz. AMBAG's Metropolitan Transportation Plan /Sustainable Communities Strategy (MTP/SCS), also known as *Moving Forward Monterey Bay 2040*, was adopted via Resolution No. 2018-05 by the AMBAG Board of Directors in June 2018 (AMBAG 2018). The 2040 MTP/SCS is a long-range transportation and land use plan for the Monterey Bay region, and is built on a set of integrated policies, strategies, and investments to maintain and improve the transportation system to meet the diverse needs of the region through 2040. The AMBAG Board of Directors adopted the following goals and policy objectives:

- **Access and Mobility:** Provide convenient, accessible, and reliable travel options while maximizing productivity for all people and goods in the region
- **Economic Vitality:** Raise the region's standards of living by enhancing the performance of the transportation system
- **Environment:** Promote environmental sustainability and protect the natural environment
- **Healthy Communities:** Protect the health of our residents; foster efficient development patterns that optimize travel, housing, and employment choices and encourage active transportation
- **Social Equity:** Provide an equitable level of transportation services to all segments of the population
- **System Preservation and Safety:** Preserve and ensure a sustainable and safe regional transportation system

This framework of goals and policy objectives was used to guide the development of the 2040 MTP/SCS. Performance measures were established to evaluate how well the 2040 MTP/SCS performs in each of these areas (AMBAG 2018).

One of the 2040 MTP/SCS's primary goals is to reduce per capita greenhouse gas emissions over the next 25 years. In order to reach this goal, AMBAG's strategic system expansion includes the expansion of active transportation options, such as trails. The FORTAG project is included on the list of active transportation projects in Monterey County in the 2040 MTP/SCS.

Monterey County Regional Transportation Plan

The Transportation Agency for Monterey County (TAMC) is designated by the State of California to serve as the Regional Transportation Planning Agency for Monterey County. The Monterey County Regional Transportation Plan (2018), developed by TAMC in coordination AMBAG, identifies challenges confronting the County's transportation system and financing strategies to undertake countywide transportation projects that enhance mobility, safety, access, environmental quality, and economic activities while promoting sustainable land use patterns (TAMC 2018a). Projects identified in the Monterey County Regional Transportation Plan include those that would be in areas of moderate, high, and very high fire hazard, such as FORTAG. TAMC is the CEQA lead agency for this EIR.

2018 Active Transportation Plan for Monterey County

TAMC updated the Active Transportation Plan for Monterey County in 2018. The Active Transportation Plan identifies remaining gaps in the bicycle and pedestrian network, as well as opportunity areas for innovative bicycle facility design (TAMC 2018b). The main goals of the Active Transportation Plan are to increase the proportion of trips accomplished by biking and walking throughout Monterey County, remove gaps and enhance bicycle and pedestrian network connectivity, and provide improved bicycle and pedestrian access to diverse areas and populations in Monterey County via public engagement, program delivery, and capital investment. FORTAG is included on the list of projects in the Active Transportation Plan, though it is identified as a fiscally-constrained project. The Active Transportation Plan identifies goals and policies from the County's General Plan Circulation Element, which relate to the provision of alternative transportation options in the County as a means of reducing vehicle miles traveled.

c. Local

2010 Monterey County General Plan

The 2010 Monterey County General Plan includes policies that address existing and future land use development for the unincorporated communities of the County. In the Land Use Element, General Plan land use designations define the physical uses and intensity of development for land in the unincorporated County. General Plan goals and policies that are intended to mitigate or reduce environmental impacts and that are relevant to the FORTAG project are listed in **Table 4.11-3**.

Fort Ord Master Plan

The County's General Plan includes the Fort Ord Master Plan, which incorporates all applicable policies and programs contained in the BRP. The Fort Ord Master Plan contains additional design objectives and land use description clarification to further the design principles of the BRP (Monterey County 2010). The southern portion of the National Monument Loop and a majority of the Ryan Ranch segments would be located in the Habitat Management Plan (HMP) area of former Fort Ord, according to General Plan Figure LU6a, *Fort Ord Master Plan – Land Use Plan*. The north side of the Ryan Ranch segment contains the Highway 68 bypass right-of-way overlay, which restricts development.

The Fort Ord Master Plan contains the following General Development Character and Design Objective that directly applies to the FORTAG project:

Coordinate the design and character of a perimeter regional trail to provide an effective boundary between the residential community and the adjacent Bureau of Land Management (BLM) protected habitat area.

The Fort Ord Master Plan Recreation and Open Space Element contains policies adopted from the BRP that apply to the FORTAG project:

- **Objective C:** Promote the goals of the Habitat Management Plan (HMP) through the sensitive siting and integration of recreation areas that enhance the natural community.
- **Recreation Policy C-1:** Monterey County shall establish an oak tree protection program to ensure conservation of existing coastal live oak woodlands in large corridors within a comprehensive open space system. Locate local and regional trails within this system.

- **Objective F:** Create a unified system of hiker/biker and equestrian trails, which link all sectors of the former Fort Ord and encourage alternative means of transportation.
- **Recreation Policy F-2:** The County of Monterey Shall encourage the development of alternative means of transportation for recreation and other travel.
 - **Program F-2.1:** The County of Monterey shall adopt a Comprehensive Trails Plan, and incorporate it into its Greater Monterey Peninsula Area Plan. This Trail Plan will identify desired hiker/biker and equestrian trails within the portion of the former Fort Ord within Marina's jurisdiction, will create a trail hierarchy, and will coordinate trail planning with other jurisdictions within the former Fort Ord boundaries in order to improve access to parks, recreational facilities, and other open space.

Greater Monterey Peninsula Area Plan

Portions of all the Trail segments would be located in the Greater Monterey Peninsula planning area (Monterey County 2010). The Greater Monterey Peninsula planning area contains areas north and south of State Route (SR) 68, and west of Laureles Grade. The following policies apply to the FORTAG project:

- **GMP-3.11:** Riding and hiking trails should be acquired and developed with the intent of creating a coordinated, area-wide trails system. All motorized vehicles shall be prohibited from using these trails.
- **GMP-3.13:** As development of bike paths and a coordinated, area-wide trails system are essential for circulation, safety, and recreation in the Greater Monterey Peninsula Planning Area, dedication of trail easements may be required as a condition of development approval, notwithstanding [General Plan, Conservation/Open Space Element] Policy OS-1.10(b).

Monterey County Code

The Monterey County Zoning Ordinance (Title 21 of the Monterey County Code) implements the policies of the General Plan and area-master plans by classifying and regulating the uses of land in the County. While land use designations characterize the physical uses and the intensity of those uses, zoning designations legally define permitted uses and development standards. Monterey County's Zoning Ordinance identifies specific zoning districts in the county and development standards that apply to each district.

City of Marina

2000 City of Marina General Plan

The City of Marina's 2000 General Plan (amended 2010) serves as a framework for guiding daily and long-term planning and development decisions by the City of Marina in a manner consistent with the City's goals (City of Marina 2000). Goals and policies of the General Plan that are intended to mitigate or reduce environmental impacts and that are relevant to the FORTAG project are listed in **Table 4.11-4**.

City of Marina Zoning Ordinance

The City of Marina Zoning Ordinance is contained in Chapter 17 of the Marina Municipal Code. The Zoning Ordinance implements the policies of the City's General Plan by classifying and regulating the uses of land in Marina. While land use designations characterize the physical uses and the intensity

of those uses, zoning designations legally define permitted uses and development standards. The City of Marina Zoning Ordinance identifies specific zoning districts in Marina and development standards that apply to each district.

1982 City of Marina Local Coastal Program

The City of Marina has a Local Coastal Program (LCP), which was certified in 1982 by the CCC and amended in 2013. The City's coastal zone includes SR 1 and all lands west of SR 1 within the incorporated City limits; lands west of Del Monte Boulevard between Reservation Road and the City's southern boundary; and a narrow strip of land about two miles long west of SR 1 within the former Fort Ord boundary, which includes the coastal bikeway and the Southern Pacific Railroad tracks (City of Marina 1982).

Within the City of Marina, there would be two connections to the Coastal Rec Trail: the Northern Marina segment would connect at Beach Road; the CSUMB Loop North segment would connect over SR 1 via an existing overcrossing at 8th Street. Neither of these FORTAG trail connections to the Coastal Rec Trail would be located in the City's coastal zone. However, both proposed trail connections and alignments would provide an active transportation alternative and enhance public access to the Coastal Rec Trail and City's coastal zone.

City of Seaside

2004 City of Seaside General Plan

The City of Seaside's 2004 General Plan serves as the blueprint for future growth and development, aimed at creating a community with a variety of housing, recreational, and economic opportunities (City of Seaside 2004). Goals and policies of the General Plan that are intended to mitigate or reduce environmental impacts and that are relevant to the FORTAG project are listed in **Table 4.11-5**.

Seaside Zoning Code

The Seaside Zoning Code is contained in Title 17 of the Seaside Municipal Code. The Zoning Ordinance implements the policies of the City's General Plan by classifying and regulating the uses of land in Seaside. While land use designations characterize the physical uses and the intensity of those uses, zoning designations legally define permitted uses and development standards. The Seaside Zoning Code identifies specific zoning districts in Seaside and development standards that apply to each district.

2005 City of Seaside Parks, Recreation, and Community Services Plan

The City of Seaside Parks, Recreation, and Community Services Plan (Parks and Rec Plan) identifies critical issues for the future use of the City's parks system, such as the need to provide adequate park facilities in all of the Seaside neighborhoods, provide support facilities for recreational activities, and upgrade the existing park system (City of Seaside 2005). The Parks and Rec Plan notes recreational development opportunities and needs for former Fort Ord lands within the City's jurisdiction. The Parks and Rec Plan includes development policies for trails to ensure proposed trails are compatible with existing land uses, road and trail networks, and accessible by trail users; as well as general design standards to ensure proposed trails are planned, sized, and designed for appropriate uses (such as multi-use or pedestrian-only nature trails).

The FORTAG project is not included as a future recreational need in the Parks and Rec Plan. However, the Parks and Rec Plan integrates applicable guidelines from the Fort Ord BRP for development of former Fort Ord lands and lists several recommended improvements for the Laguna Grande Park. Recommended improvements for the Laguna Grande Park include the installation of new pathways in select areas, installation of signage and benches, and additional lighting.

2040 City of Seaside General Plan (Draft)

The City of Seaside is in the process of completing a General Plan update. The public draft, titled *Draft Seaside 2040*, was released in November 2017 and the General Plan update EIR is underway. Draft Seaside 2040 plan aims to refine the land use and community character vision for potential growth areas of the City and ensuring that the General Plan is consistent with the Fort Ord BRP, taking into consideration the shifts in the City's economic and housing markets, land use, transportation system, and infrastructure demands since the 2004 General Plan.

Draft Seaside 2040 plan includes several major strategies for the City to achieve the overall goals of the plan. One major strategy states "create an active trail network," which is specific to projects like FORTAG. This specific strategy aims to create a regional network of active open space trails and bicycle facilities that improve access to the Fort Ord National Monument and other recreation destinations. Draft Seaside 2040 states that such trails will connect to formal and informal trailheads in the National Monument and link to the FORTAG alignment. Goals and policies of the Draft Seaside 2040 that are intended to mitigate or reduce environmental impacts and that are relevant to the FORTAG project are listed in **Table 4.11-6**.

City of Monterey

2016 City of Monterey General Plan

The City of Monterey's General Plan contains goals and policies which serve to guide future urban design decisions for the City by preserving and enhancing Monterey's physical setting and image as a town (City of Monterey 2016). Goals and policies of the General Plan that are intended to mitigate or reduce environmental impacts and that are relevant to the FORTAG project are listed in **Table 4.11-7**.

City of Monterey Zoning Ordinance

The City of Monterey Zoning Ordinance is contained in Chapter 38 of the Monterey Municipal Code. The Zoning Ordinance implements the policies of the City's General Plan by classifying and regulating the uses of land in Monterey. While land use designations characterize the physical uses and the intensity of those uses, zoning designations legally define permitted uses and development standards. The City of Monterey Zoning Ordinance identifies specific zoning districts in Monterey and development standards that apply to each district.

2016 City of Monterey Parks and Recreation Master Plan

The City of Monterey Parks and Recreation Master Plan (PRMP) was adopted in 2016 as an update and replacement of the City's 1986 Plan and incorporates elements of other City plans such as the Waterfront Master Plan, Multi-Modal Mobility Plan, and the Downtown Specific Plan (City of Monterey 2016).

The PRMP identifies the Ryan Ranch Open Space site as having potential for future development for recreational use. Though a feasibility study would need to be completed, the PRMP notes that a multi-field sports complex may be a potential project for the Ryan Ranch Open Space site since a portion of the site has access to water and is relatively flat.

The proposed Ryan Ranch segment would extend southeast toward Ryan Ranch, crossing South Boundary Road at Rancho Saucito. This segment would connect the main FORTAG spine with employment areas in the Ryan Ranch Business Park in the City of Monterey.

City of Del Rey Oaks

City of Del Rey Oaks General Plan

The City of Del Rey Oaks General Plan provides a framework for development and growth in the city (City of Del Rey Oaks 1997). Goals and policies of the General Plan that are intended to mitigate or reduce environmental impacts and that are relevant to the FORTAG project are listed in **Table 4.11-8**.

City of Del Rey Oaks Zoning Ordinance

The City of Del Rey Oaks Zoning Ordinance is contained in Title 17 of the Del Rey Oaks Municipal Code. The Zoning Ordinance implements the policies of the City's General Plan by classifying and regulating the uses of land in Del Rey Oaks. While land use designations characterize the physical uses and the intensity of those uses, zoning designations legally define permitted uses and development standards. The City of Del Rey Oaks Zoning Ordinance identifies specific zoning districts in Del Rey Oaks and development standards that apply to each district.

1981 Land Use Plan for the Laguna Grande/Roberts Lake Local Coastal Program (Cities of Monterey and Seaside)

The cities of Monterey and Seaside have a joint powers agreement for the Laguna Grande LCP, which includes the cities' coastal zones which are continuous at Laguna Grande and Roberts Lake. The Laguna Grande LCP boundary includes the entirety of the Laguna Grande Regional Park, Roberts Lake, approximately 500 feet of frontage along the Pacific Ocean (part of Seaside State Beach), and several adjacent parcels around Laguna Grande Regional Park (Cities of Monterey and Seaside 1981).

The west end of the Canyon Del Rey/SR 218 segment would be located in the Laguna Grande coastal zone, beginning at Fremont Boulevard. As stated in Section 2, *Project Description*, the Canyon Del Rey/SR 218 segment includes two alignment design options. The preferred design option would connect the Trail to the Laguna Grande Regional Park trail on the southwestern side of Laguna Grande in the City of Monterey, before crossing Del Monte Boulevard to connect with the Coastal Rec Trail at Roberts Lake Park. The other alignment design option would extend the Trail along the northeastern side of Laguna Grande Regional Park in the City of Seaside, rather than the southwestern side of the park in Monterey. The Canyon Del Rey/SR 218 segment would also include an undercrossing beneath General Jim Moore Boulevard and an undercrossing beneath SR 218 to connect FORTAG to the Coastal Rec Trail. LCP goals and policies relevant to the FORTAG project are listed in **Table 4.11-8**.

California State University, Monterey Bay

2007 CSUMB Master Plan

CSUMB's 2007 Master Plan provides an implementable, long-term growth strategy for the continued transformation of former Fort Ord areas for campus use. The 2007 Master Plan establishes existing conditions of the campus and provides a facilities plan focused around the maintenance of existing buildings and infrastructure, existing and future academic needs, and capacity gap analysis based on opportunities and constraints. The 2007 Master Plan identifies the need for connections to off-campus destinations, and specifically states the following action: "locate efficient transit, vehicular, and non-motorized transit and pedestrian routes, which connect to Marina and Seaside destinations" (CSUMB 2007).

2017 Draft CSUMB Comprehensive Master Plan

CSUMB is in the process of updating its 2007 Master Plan, which endeavors to build on earlier planning efforts that facilitated the transition of the former Fort Ord Army Base to the campus at present day. The 2017 Draft Master Plan acknowledges the FORTAG project in relation to campus, and specifies that "the plan also encourages a clear and inviting connection to the regional existing and proposed FORTAG trail network" (CSUMB 2017). Furthermore, the 2017 Draft Master Plan states that the construction of the proposed CSUMB Loop South segment is one of the many elements that would contribute to the sense of arrival for the campus and would "emphasize the campus's commitment to bicyclists and pedestrians" (CSUMB 2017). The CSUMB Loop North and CSUMB Loop South segments are clearly integrated into the 2017 Draft Master Plan as an element that would fulfill the campus's need for connections to off-campus destinations while promoting alternative modes of transportation.

4.11.3 Methodology and Significance Thresholds

Methodology

This section describes the potential environmental impacts of the proposed FORTAG project and all FORTAG design options relevant to land use and planning. The potential impacts to existing land uses in and adjacent to the FORTAG corridor and study area were evaluated through the review of existing policies and plans in the County and cities that would contain Trail segments. A consistency analysis of the FORTAG project with applicable county and city policies was completed to identify potential impacts.

Significance Thresholds

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

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

For an impact to be considered significant, any inconsistency would also have to result in a significant adverse change in the environment not already addressed in the other resource sections of this EIR.

4.11.4 Project Impact Analysis

Threshold 1: Would the project physically divide an established community?

Impact LU-1 THE FORTAG ALIGNMENT WOULD NOT PHYSICALLY DIVIDE AN ESTABLISHED COMMUNITY. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

As stated in **Section 2, Project Description**, the FORTAG corridor is organized into seven segments totaling approximately 28 miles of new paved trails for pedestrians and bicyclists, located primarily on the inland side of SR 1. The Trail would be located in northwestern Monterey County, traversing sections of the cities of Monterey, Del Rey Oaks, Seaside, and Marina, as well as unincorporated Monterey County. Additionally, portions of the project corridor are within or adjacent to areas managed by CSUMB, the FORA, the Army, Caltrans, the University of California Santa Cruz, PG&E, and the MPRPD.

The Trail would connect to the existing Coastal Rec Trail, portions of which are under the jurisdiction of California State Parks, and the North Fremont Bicycle and Pedestrian Project in Monterey. The FORTAG system's connections to the existing Coastal Rec Trail would form continuous trail circuits, as shown on **Figure 2-7**, but the FORTAG project would not involve any direct modifications to the Coastal Rec Trail. The proposed alignment, when combined with Coastal Rec Trail, would generally form three loops that roughly encircle the City of Marina, the CSUMB campus, and the City of Seaside, respectively.

The FORTAG alignment would improve connections between former Fort Ord, Monterey Peninsula, and Salinas Valley communities through the provision of pedestrian/bicycle trails as an active transportation alternative. The Trail would connect existing points of interest throughout the FORTAG corridor, as well as enhance connections to the Coastal Rec Trail. FORTAG would not physically divide an established community; in fact, it would provide an improved connection between these existing communities. Therefore, this impact would be less than significant. No mitigation is required.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 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?

Impact LU-2 WITH IMPLEMENTATION OF MITIGATION MEASURES IDENTIFIED IN THIS EIR, FORTAG WOULD NOT CAUSE A SIGNIFICANT ENVIRONMENTAL IMPACT DUE TO A CONFLICT WITH A LAND USE PLAN, POLICY, OR REGULATION ADOPTED FOR THE PURPOSE OF AVOIDING OR MITIGATING AN ENVIRONMENTAL EFFECT. IMPACTS WOULD BE POTENTIALLY SIGNIFICANT BUT MITIGABLE.

The *CEQA Guidelines* require that an EIR consider whether a proposed project may conflict with any applicable land use plan, policy, or regulation that was adopted for the purpose of avoiding or mitigating an environmental impact. This environmental determination differs from the larger policy

determination of whether a proposed project is consistent with a jurisdiction's general plan. The former determination, which is intended for consideration in a CEQA document, is based on, and limited to, a review and analysis of environmental effects. The latter determination, by comparison, is made by the decision-making body of the jurisdiction and is based on the jurisdiction's broad discretion to assess whether a proposed project would conform to the policies and objectives of its general plan/specific plan as a whole. In addition, the broader general plan consistency determination takes into account all evidence in the record concerning the project characteristics, its desirability, as well as its economic, social, and other non-environmental effects.

Conflicts of a project with land use policies do not, in themselves, constitute significant environmental impacts. Policy conflicts are considered environmental impacts only when they would or could result in physical environmental effects. TAMC and local agency decision-makers will need to consider the consistency of FORTAG with applicable plans and policies that do not directly relate to physical environmental issues when determining whether to approve or deny the project.

The following discussion focuses on those General Plan goals and policies that relate to avoiding or mitigating environmental impacts, and an assessment of whether any inconsistency with these standards creates a significant physical impact on the environment. Consistency with applicable goals and policies of the County of Monterey General Plan are assessed in **Table 4.11-3**. Consistency with applicable goals and policies of the City of Marina General Plan are evaluated in **Table 4.11-4**, City of Seaside General Plan in **Table 4.11-5**, Draft Seaside 2040 in **Table 4.11-6**, City of Monterey General Plan in **Table 4.11-7**, City of Del Rey Oaks in **Table 4.11-8**, and the Laguna Grande/Roberts Lake Park LCP in **Table 4.11-9**. The information in these tables can be relied upon by the City Council of the various applicable cities, County Board of Supervisors, and TAMC to determine FORTAG's consistency with applicable goals and policies of the general plans. Only goals and policies relevant to this analysis and applicable to FORTAG are included. Policies that are redundant between elements within the same general plan are omitted from these tables.

Table 4.11-3 Monterey County General Plan Consistency Analysis

Monterey County General Plan Policy	Consistency Discussion
Conservation and Open Space Element	
<p>Goal OS-1. Retain the character and natural beauty of Monterey County by preserving, conserving, and maintaining unique physical features, natural resources, and agricultural operations.</p>	<p>Potentially consistent. As described in Section 4.1, Aesthetics, Trail amenities, retaining walls, overcrossings, and undercrossings could change visual character in the area. Implementation of Mitigation Measures AES-1 and AES-3 would require Trail amenities, retaining walls, the crossings to be designed to minimize appearance and blend within the landscape, thereby protecting visual character of the area. The FORTAG alignment has been designed to avoid natural resources and agricultural operations to the extent feasible. Implementation of mitigation measures identified throughout this EIR would prevent significant impacts to environmental resources, including agricultural operations and natural resources.</p>
<p>Policy OS-1.2. Development in designated visually sensitive areas shall be subordinate to the natural features of the area.</p>	<p>Potentially consistent. As described in Section 2, Project Description, FORTAG would include a greenway of up to 150 feet on both sides, or 300-foot-wide total. The width of the greenway would vary depending on terrain and right-of-way available. The greenway is intended to be undeveloped, allowing for habitat and open space enjoyment. This greenway would result in the FORTAG alignment closely matching the appearance of the natural features of the area. Additionally, the Trail has been designed to minimize impacts on natural features, and implementation of Mitigation Measures AES-1 and AES-3 in Section 4.1, Aesthetics, would require the Trail and its amenities to blend with the natural landscape.</p>
<p>Policy OS-1.10: Recognizing the value of trails in Monterey County, policies to establish a trails program, including bike paths (Class 1), and walking and equestrian facilities used by the general public, shall be addressed in each Area Plan within the following parameters:</p> <ol style="list-style-type: none"> a. Public lands shall be used as the primary source for establishing nonmotorized trails. Cooperation between public agencies and the public in the creation of trails is encouraged. b. Dedication of public trails or trail easements on private property shall be voluntary, except as may be required by State Law. c. Crop protection and food safety of agricultural crops shall be a primary factor in disallowing trails. d. Potential new trails on private land or public land are subject to appropriate design including location, screening, safety, reducing potential for trespass onto private property, protection of the public health and safety, and 	<p>Potentially consistent. Implementation of FORTAG would involve coordination across multiple public agencies and jurisdictions. The development, construction, operation, and maintenance, of FORTAG would be governed by a Master Agreement to be executed by TAMC and the jurisdictions within whose boundaries FORTAG would be located. The FORTAG segments would be used by pedestrians and bicyclists, and include Class I, Class II, Class III, and Class IV bike paths. Certain portions of the Trail would include equestrian side paths. The design of the proposed segments is discussed in detail in Section 4.1, Aesthetics, wherein features such as safety lighting in select areas along the Trail would be designed to minimize impacts to wildlife, the natural setting, and rural vicinity. As described in Section 4.2, Agriculture and Forestry Resources, implementation of Mitigation Measure AG-1 would require mitigation for impacts to Important Farmland. Therefore, FORTAG would be consistent in providing a trail network for pedestrian and bicycle use.</p>

Monterey County General Plan Policy	Consistency Discussion
<p>protection of agricultural products.</p> <p>e. The location and design of trails on public or private land shall be done in consultation with affected public agencies, landowners, and other interested parties.</p> <p>f. New commercial development and residential subdivisions shall mitigate significant adverse disruption of views from common viewing points on public trails through a variety of strategies including but not limited to the use of appropriate materials, scale, lighting and siting of development. This policy shall not apply to existing residential development or to any agricultural activity or operation.</p> <p>The design and development of the inland portion of the Monterey Bay Sanctuary/Scenic Trail is exempt from this policy.</p>	
<p>Goal OS-3. prevent soil erosion to conserve soils and enhance water quality.</p>	<p>Potentially consistent. A SWPPP would be implemented during construction of the proposed Trail, and it would include BMPs to prevent erosion and sedimentation of soils. The SWPPP must also contain measures to cleanup spills of construction equipment fluids, such as gasoline or motor oil. Mandatory implementation of the SWPPP and associated BMPs would protect water quality during construction. After construction, precipitation would runoff the surface of the Trail and infiltrate the ground in the shoulders, which would be pervious.</p>
<p>Policy OS-3.1. Best Management Practices (BMPs) to prevent and repair erosion damage shall be established and enforced.</p>	<p>Potentially consistent. As described above for Goal OS-3, a SWPPP would be implemented during construction of the proposed Trail, and it would include BMPs to prevent erosion and sedimentation of soils.</p>
<p>Goal OS-4. Protect and conserve the quality of coastal, marine, and river environments, as applied in areas not in the coastal zone.</p>	<p>Potentially consistent. As described above for Goal OS-3, a SWPPP would be implemented during construction of the proposed Trail, and it would include BMPs to prevent erosion of soils and water quality.</p>
<p>Policy OS-4.1. Federal and State listed native marine and fresh water species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant shall be protected. Species designated in Area Plans shall also be protected.</p>	<p>Potentially consistent. FORTAG has been designed to minimize disturbance within sensitive habitat, such as riparian vegetation and wetlands. However, the proposed alignment includes sensitive habitat and habitat that supports special-status plant and wildlife species, as described in Section 4.4, Biological Resources. Implementation of Mitigation Measures BIO-1(a) through BIO-1(j) would minimize loss of sensitive species and their associated habitat. Implementation of Mitigation Measures BIO-2(a) through 2(d) would minimize disturbance to sensitive habitats, and Mitigation Measures BIO-3(a) through BIO-3(c) would reduce impacts to wetlands and ensure no net loss of wetland habitat. With implementation of these mitigation measures, impacts to specialist-status species and sensitive habitats would be less than significant, as described in Section 4.4, Biological Resources.</p>

Monterey County General Plan Policy	Consistency Discussion
<p>Policy OS-4.2. Direct and indirect discharges of harmful substances into marine waters, rivers or streams shall not exceed state or federal standards.</p>	<p>Potentially consistent. As described above for Goal OS-3, implementation of the SWPPP and associated BMPs would prevent water quality impacts during construction. Harmful substances would not be used for FORTAG following construction. Discharges to water bodies would not exceed state or federal standards.</p>
<p>Goal OS-5. Conserve listed species, critical habitat, habitat and species protected in area plans; avoid, minimize and mitigate significant impacts to biological resources.</p>	<p>Potentially consistent. Please refer to Policy OS-4.2, above. Mitigation measures included in this EIR would reduce impacts to listed species, critical habitat, and biological resources, as described above.</p>
<p>Policy OS-5.3. Development shall be carefully planned to provide for the conservation and maintenance of critical habitat.</p>	<p>Potentially consistent. Please refer to Policy OS-4.2, above. Mitigation measures included in this EIR would reduce impacts to critical habitat, as described above.</p>
<p>Policy OS-5.4. Development shall avoid, minimize, and mitigate impacts to listed species and critical habitat to the extent feasible. Measures may include but are not limited to:</p> <ul style="list-style-type: none">a. Clustering lots for development to avoid critical habitat areas;b. Dedications of permanent conservation easements; orc. Other appropriate means. <p>If development may affect listed species, consultation with United States Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) may be required and impacts may be mitigated by expanding the resource elsewhere on-site or within proximity off-site. Final mitigation requirements would be determined as required by law.</p>	<p>Potentially consistent. Please refer to Policy OS-4.2, above. Mitigation measures included in this EIR would reduce impacts to listed species and critical habitat, as described above.</p>

Monterey County General Plan Policy	Consistency Discussion
<p>Policy OS-5.5. Landowners and developers shall be encouraged to preserve the integrity of existing terrain and native vegetation in visually sensitive areas such as hillsides, ridges, and watersheds. Routine and Ongoing Agricultural Activities shall be exempt from this policy.</p>	<p>Potentially consistent. FORTAG would traverse hillsides and native vegetation. However, existing terrain would be utilized to the extent feasible and native vegetation avoided as much as possible. For example, segments of the Trail would utilize existing Blue Line Road, which would minimize new disturbance and grading required in hillside areas. Ground disturbance required for construction of the Trail would be minimized pursuant to Mitigation Measures BIO-2(a) and BIO-2(b), described in Section 4.4, Biological Resources. Implementation of Mitigation Measure BIO-2(d), as described in Section 4.4, Biological Resources, would require disturbed areas to be hydroseeded with a mix of locally native species upon completion of work in those areas. In areas where construction is ongoing, hydroseeding would occur where no construction activities have occurred within six weeks since ground disturbing activities ceased.</p>
<p>Policy OS-5.6. Native and native compatible species, especially drought resistant species, shall be utilized in fulfilling landscaping requirements.</p>	<p>Potentially consistent. FORTAG does not include landscaping. Implementation of Mitigation Measure BIO-2(d), as described in Section 4.4, Biological Resources, would require disturbed areas to be hydroseeded with a mix of locally native species upon completion of work in those areas.</p>
<p>Policy OS-5.18. Prior to disturbing any federal or state jurisdictional areas, all applicable federal and state permitting requirements shall be met, including all mitigation measures for development of jurisdictional areas and associated riparian habitats.</p>	<p>Potentially consistent. The Trail has been designed and aligned to avoid wetlands and riparian habitat to the extent possible. However, as described in Section 4.4, Biological Resources, the Trail would result in impacts to wetlands and to riparian habitat. Mitigation Measures BIO-1(c), BIO-3(a), BIO-3(b), and BIO-3(c) would reduce impacts to wetlands and require mitigation consistent with regulatory requirements. Disturbance to sensitive habitat would be minimized pursuant to Mitigation Measures BIO-2(a) through BIO-2(d), described in Section 4.4, Biological Resources. FORTAG must be implemented in accordance with all applicable federal and state permitting requirements.</p>
<p>Goal OS-6. Encourage the conservation and identification of the County's archaeological resources.</p>	<p>Potentially consistent. As described in Section 4.5, Cultural Resources, no known cultural resources on or potentially eligible for listing on the National Register of Historic Places or California Register of Historic Resources occurs within the FORTAG alignment. There would be potential to discover or unearth previously unknown resources during construction of the Trail. However, implementation of Mitigation Measure CUL-1, would protect eligible resources from adverse impacts if discovered during construction.</p>
<p>Goal OS-7. Encourage the conservation and identification of the County's paleontological resources.</p>	<p>Potentially consistent. As described in Section 4.7, Geology and Soils, no known paleontological resources occur within the FORTAG alignment, but there would be potential to discover or unearth previously unknown resources during construction of the Trail. However, implementation of Mitigation Measure GEO-5 would protect paleontological resources from adverse impacts if discovered during construction.</p>
<p>Goal OS-8. Encourage the conservation and identification of the County's native Californian cultural sites, sacred places, and burial sites.</p>	<p>Potentially consistent. As described in Section 4.15, Tribal Cultural Resources, no specific tribal cultural resources have been identified in the FORTAG corridor. However, during project ground disturbance, there would be potential for encountering previously undiscovered cultural resources of Native American origin that could be considered tribal cultural resources. Implementation of Mitigation Measure TCR-1 would provide protection of tribal cultural resources, as applicable.</p>

Monterey County General Plan Policy	Consistency Discussion
Goal OS-10. Provide for the protection and enhancement of Monterey County's air quality without constraining routine and ongoing agricultural activities.	Potentially consistent. Construction of FORTAG would generate temporary emissions, such as exhaust from construction equipment and dust from ground disturbance. However, these emissions would stop upon completion of construction activities. Operation of FORTAG would reduce the long-term emissions of air pollutants because it would provide a route for pedestrians and bicyclists to move through the region. Walking, running, and bicycling do not generate air pollution.
Fort Ord Master Plan: Land Use Element	
Objective A: Encourage land uses that respect, preserve, and enhance natural resource and open space at the former Fort Ord.	Potentially consistent. As noted in Section 2, Project Description , the FORTAG project would include a greenway of up to 150 feet on both sides, or 300-foot-wide total. The width of the greenway would vary depending on terrain and right-of-way available. The greenway is intended to be undeveloped, allowing for habitat and open space enjoyment. No trails would be constructed in the greenway, and use of the greenway by hikers, mountain bikers, and/or equestrians would be discouraged except within the side path, where included. Therefore, the FORTAG project would be consistent in providing and preserving open space lands through the greenway where space permits.
Fort Ord Master Plan: Recreation and Open Space Element	
Objective C: Promote the goals of the Habitat Management Plan (HMP) through the sensitive siting and integration of recreation areas that enhance the natural community.	Potentially consistent. Please refer to Impact BIO-6 in Section 4.4, Biological Resources , for an analysis of consistency with the Fort Ord HMP.
Objective F: Create a unified system of hiker/biker and equestrian trails, which link all sectors of the former Fort Ord and encourage alternative means of transportation.	Potentially consistent. The FORTAG project would provide a trail network that connects former Fort Ord lands, designated as borderland development areas in the Fort Ord HMP, to the existing Coastal Rec Trail. Within Monterey County, the National Monument Loop segment would serve pedestrians and bicyclists, as well as equestrian users in select areas that contain equestrian paths, as a non-motorized active transportation alternative from inland areas of the borderlands of former Fort Ord to the coast, traversing existing points of interests in neighboring jurisdictions along the way. Therefore, the FORTAG project would be consistent with the policy in providing a critical trail link between the former Fort Ord, neighboring jurisdictions, and existing trails networks in the region.

Table 4.11-4 City of Marina General Plan Consistency Analysis

City of Marina General Plan Policy	Consistency Discussion
<p>Policy 2.4-4. Wherever possible, lands with significant agricultural, natural habitat, or scenic value shall be retained and protected from degradation.</p>	<p>Potentially consistent. The FORTAG alignment has been designed to minimize impacts to natural resources and agricultural operations to the extent feasible. Implementation of mitigation measures identified throughout this EIR would prevent significant impacts to environmental resources, including agricultural operations, natural habitat, and scenic value.</p>
<p>Policy 3.34.5. Bikeways, sidewalks, and recreational trails should be planned with consideration for protection of preservation lands, wetlands, coastal resources, and other environmental resources.</p>	<p>Potentially consistent. FORTAG has been designed to minimize disturbance within sensitive habitat, such as riparian vegetation and wetlands. However, the proposed alignment includes sensitive habitat and habitat that supports special-status plant and wildlife species, as described in Section 4.4, Biological Resources. Implementation of Mitigation Measures BIO-1(a) through BIO-1(j) would minimize loss of sensitive species and their associated habitat. Implementation of Mitigation Measures BIO-2(a) through 2(d) would minimize disturbance to sensitive habitats, and Mitigation Measures BIO-3(a) through BIO-3(c) would reduce impacts to wetlands and ensure no net loss of wetland habitat. With implementation of these mitigation measures, impacts to specialist-status species and sensitive habitats would be less than significant, as described in Section 4.4, Biological Resources. Implementation of mitigation measures identified throughout this EIR would prevent significant impacts to preservation lands, wetlands, coastal resources, and other environmental resources.</p>

Table 4.11-5 Seaside 2004 General Plan Policy Consistency Analysis

General Plan Policy	Discussion
Conservation and Open Space Element	
<p>Goal COS-1. Provide and maintain a high quality parks and recreation system that meets the varying recreational needs of the community.</p>	<p>Potentially consistent. FORTAG would provide a pedestrian and bicycle trail and greenway that Seaside residents could use for recreational activities, such as running, cycling, bird watching, and other similar passive recreational activities. The Trail would provide an additional recreational facility to the city’s mix of existing and planned facilities. The Trail would also provide access to open space areas to the east of Seaside.</p>
<p>Policy COS-1.3. Maximize pedestrian, transit, and bicycle access to parks and other local and regional activity centers as an alternative to automobile access.</p>	<p>Potentially consistent. FORTAG would provide pedestrian and bicycle access to parks and open space areas in Seaside, Marina, Del Rey Oaks, and Monterey, as well as Monterey County and the CSUMB campus. For example, the Canyon Del Rey/SR 218 segment would link parks in Del Rey Oaks that are not currently connected, such as Work Memorial Park and Laguna Grande Regional Park. Residents and workers in these areas would be able to utilize the Trail to access regional open space and park areas.</p>

General Plan Policy	Discussion
<p>Goal COS-3. Protect and enhance local and regional ground and surface water resources.</p>	<p>Potentially consistent. A SWPPP would be implemented during construction of the proposed Trail, and it would include BMPs to prevent erosion and sedimentation of soils. The SWPPP must also contain measures to cleanup spills of construction equipment fluids, such as gasoline or motor oil. Mandatory implementation of the SWPPP and associated BMPs would protect water quality during construction. After construction, precipitation would runoff the Trail surface and infiltrate the ground in the shoulders, which would be pervious. Infiltration and natural soils would treat runoff before reaching groundwater aquifers. Therefore, water resources would be protected.</p>
<p>Goal COS-4. Preserve and protect the sensitive habitats and species within the community.</p>	<p>Potentially consistent. As described in Section 4.4, Biological Resources, FORTAG would result in impacts to special-status species and sensitive habitats. Implementation of Mitigation Measures BIO-1(a) through BIO-1(j) would reduce impacts to special-status species to less than significant. Implementation of Mitigation Measures BIO-2(a) though BIO-2(d) would reduce impacts to sensitive habitats to less than significant. With these measures, habitats and species within Seaside would be protected.</p>
<p>Policy COS-4.1. Preserve ecological and biological resources by maintaining these resources as open space.</p>	<p>Potentially consistent. As described in Section 2, Project Description, FORTAG would include a greenway of up to 150 feet on both sides, or 300-foot-wide total. The greenway is intended to be undeveloped, allowing for habitat and open space enjoyment. No trails would be constructed in the greenway, and use of the greenway by hikers, mountain bikers, and/or equestrians would be discouraged except within the side path, where included. Establishing open space land as greenway would preserve biological resources that occur within the greenway area. Implementation of the mitigation measures listed and described in Section 4.4, Biological Resources, would reduce impacts to ecological and biological resources to less than significant. These mitigation measures, such as Mitigation Measure BIO-2(a), require avoidance of biological resources to the greatest extent feasible.</p>
<p>Policy COS-4.2. Protect and enhance the creeks, lakes, and adjacent wetlands for their value in providing visual amenity, habitat for wildlife, and recreational opportunities.</p>	<p>Potentially consistent. FORTAG has been designed and aligned to avoid creeks, lakes, and wetlands to the extent possible. However, widening of an existing trail would be required in wetland areas are adjacent to Laguna Grande, resulting in disturbance to wetlands. Impacts to wetlands would also be required at Frog Pond and along Canyon Del Rey Creek in the City of Del Rey Oaks. As described in Section 4.4, Biological Resources, implementation of Mitigation Measures BIO-3(a) through BIO-3(c) would ensure no net loss of wetlands.</p>
<p>Policy COS-4.3. Encourage the preservation and enhancement of oak woodland elements in the natural and built environments.</p>	<p>Potentially consistent. As described in Section 4.4, Biological Resources, oak woodlands occur within the FORTAG alignment. Construction of FORTAG would require clearing of vegetation up to a 16-foot swath for most of the alignment proposed in undeveloped areas, including oak woodland habitats on the former Fort Ord lands. As described in Impact BIO-5 in Section 4.4, Biological Resources, Trail development could impact individual trees but would not result in a significant impact to oak woodland.</p>
<p>Goal COS-5. Protect high sensitivity archaeological resources, architecturally significant buildings, and historic places.</p>	<p>Potentially consistent. As described in Section 4.5, Cultural Resources, no known cultural resources on or potentially eligible for listing on the National Register of Historic Places or California Register of Historic Resources occurs within the FORTAG alignment. There would be potential to discover or unearth previously unknown resources during construction of the Trail. However, implementation of Mitigation Measure CUL-1, would protect eligible resources from adverse impacts if discovered during construction.</p>

General Plan Policy	Discussion
<p>Policy COS-5.1. Identify and conserve archeological, architectural, and historic resources within Seaside.</p>	<p>Potentially consistent. Refer to Goal COS-5 consistency analysis above.</p>
<p>Goal COS-6. Protect and improve local and regional air quality.</p>	<p>Potentially consistent. Construction of FORTAG would generate temporary emissions, such as exhaust from construction equipment and dust from ground disturbance. However, these emissions would stop upon completion of construction activities. Operation of FORTAG would reduce the long-term emissions of air pollutants because it would provide a route for pedestrians and bicyclists to move through the region. Walking, running, and bicycling do not generate air pollution.</p>
<p>Goal COS-8. Encourage exterior lighting that preserves night skies.</p>	<p>Potentially consistent. The proposed Trail would include lighting at street crossings, as necessary, for safety purposes. As described in Section 4.1, Aesthetics, there would be minimal or no lighting in open space areas, but if lighting is needed in any areas for public safety, they would need to be designed to minimize impacts to wildlife and the natural setting. A glow-in-the-dark trail surface may be considered in some locations to alleviate the need for night lighting. All light fixtures would be solar-powered and adapt to ambient light conditions and time of day: lights would be brighter at dusk, gradually dim by midnight, and then brighter again at dawn. This would facilitate Trail users but minimize disturbance late at night to the views of the sky.</p>
Safety Element	
<p>Goal S-1. Reduce the risks to people and property from hazards related to seismic activity, flooding, geologic conditions, and wildfires.</p>	<p>Potentially consistent. FORTAG would not include new structures in which people would work or reside. FORTAG would not induce population growth or development in the region, including within floodplains or proximity to faults. Therefore, in the event of seismic activities or flooding, FORTAG would not increase the risks to people of these hazards. The FORTAG alignment would be located in open space areas to the east of General Jim Moore Boulevard where there is vegetation cover and slopes susceptible to wildfire. However, FORTAG would not include new residences or businesses. Thus, FORTAG would not increase the risk or exposure of the community to wildfire hazards.</p>
<p>Policy S-1.1: Reduce the risk of impacts from and seismic and geologic hazards.</p>	<p>Potentially consistent. As described in Section 4.7, Geology and Soils, grade-separated crossings such as overcrossings or undercrossings could expose Trail users to risks from seismic ground shaking because strong ground shaking motion could damage elevated structures. Proposed overcrossings and undercrossings would require structural integrity in the event of strong groundshaking. Implementation of Mitigation Measure GEO-1 would require grade-separated crossings to be designed in accordance with the a geotechnical investigation to meet seismic standards. Therefore, there would be no risk of structure collapse and associated injury resulting seismic and geologic hazards.</p>
<p>Policy S-1.3. Reduce the risk of wildfire hazards in the community.</p>	<p>Potentially consistent. The FORTAG alignment would be located in open space areas east of General Jim Moore Boulevard where there is vegetation cover and slopes susceptible to wildfire. As described in Section 4.17, Wildfire, FORTAG would not exacerbate wildfire risks with adherence to applicable firebreak maintenance standards. The Trail could be potentially used for emergency access for firefighting, which may reduce the risk of wildfire hazards, depending on other factors, such as wind speed, humidity, and other environmental factors that influence fire behavior.</p>

General Plan Policy	Discussion
<p>Goal S-2. Protect the community from public safety hazards related to human activities.</p>	<p>Potentially consistent. Construction of FORTAG would generate temporary emissions of air pollutants, such as exhaust from construction equipment and dust from ground disturbance. However, these emissions would stop upon completion of construction activities. Operation of FORTAG would reduce the long-term emissions of air pollutants because it would provide a route for pedestrians and bicyclists to move through the region, reducing dependency on vehicles for transportation. Therefore, air quality hazards would be reduced. FORTAG would include approximately 28 at-grade crossings of roadways, not all of which would be in Seaside. As described in Section 4.14, Transportation, at-grade crossings would require improvements and modifications, such as: roadway and lane modifications; construction of medians, curb extensions, warning devices, and traffic control devices; and enhanced safety signing and striping. Lighting would also be provided as crossings, as necessary, to increase safety. As such, FORTAG would not expose the community to safety hazards.</p>
<p>Policy S-2.1. Reduce the risks posed by air pollution.</p>	<p>Potentially consistent. Construction of FORTAG would generate temporary emissions, such as exhaust from construction equipment and dust from ground disturbance. However, these emissions would stop upon completion of construction activities. Operation of FORTAG would reduce the long-term emissions of air pollutants because it would provide a route for pedestrians and bicyclists to move through the region. Walking, running, and bicycling do not generate air pollution.</p>
Noise Element	
<p>Goal N-3. Minimize non transportation-related noise impacts.</p>	<p>Potentially consistent. FORTAG would facilitate pedestrian and bicycle travel, in addition to equestrian use in some areas. These activities are typically quiet but may generate noise such as people talking as they walk along the Trail. These types of noises are common of the ambient noise environment in residential neighborhood communities, around schools, and other sensitive land uses. Therefore, FORTAG would not be a noise-producing land use affecting noise-sensitive land uses.</p>
<p>Policy N-3. Reduce the impacts of noise-producing land uses, activities, and businesses on noise-sensitive land uses.</p>	<p>Potentially consistent. As described under Goal N-3 above, FORTAG would not be a noise-producing land use affecting noise-sensitive land uses.</p>
Circulation Element	
<p>Policy C-2.2. Support programs that help reduce congestion and encourage alternative modes of transportation.</p>	<p>Potentially consistent. While FORTAG is not a program, it would promote alternative modes of transportation, such as walking and bicycling. Because the proposed Trail would connect and link neighborhoods, CSUMB campus, and a large jobs center in the region, it would encourage bicycle mode commutes between workplaces, school, and home. This shift in commute modes from vehicle to bicycle would reduce congestion.</p>
<p>Policy C-3.4. Support alternative modes of transportation that encourage physical activity, such as biking and walking.</p>	<p>Potentially consistent. FORTAG would support alternative modes of transportation that encourage physical activity, such as walking and bicycling.</p>

Table 4.11-6 Draft Seaside 2040 Policy Consistency Analysis

General Plan Policy	Discussion
Parks, Open Space + Conservation Element	
<p>Goal POC-1. Abundant new park and recreational facilities to serve Seaside.</p>	<p>Potentially consistent. FORTAG would provide a pedestrian and bicycle trail and greenway that Seaside residents could use for recreational activities, such as running, cycling, bird watching, and other similar passive recreational activities. The Trail would provide an additional recreational facility to the city’s mix of existing and planned recreational facilities. The Trail would also provide a connection to open space areas in the hillsides east of the city.</p>
<p>Policy: FORTAG. Support implementation of the FORTAG regional Trail and coordinate with FORTAG on Trail design and connectivity and promote Trail art.</p>	<p>Potentially consistent. Seaside is cooperating with other jurisdictions in the region on the design, alignment, and development of FORTAG.</p>
<p>Policy: Recreation programs. Promote opportunities for physical activities for all ages and abilities by improving and expanding community recreation programs.</p>	<p>Potentially consistent. While FORTAG is not a community recreation program, it would promote alternative modes of transportation, such as walking and bicycling, both of which are physical activities. As described in Section 2, Project Description, an objective of FORTAG is to enhance connections between Fort Ord, Monterey Peninsula, and Salinas Valley communities, and provide additional opportunities for physical exercise and stress reduction for residents and visitors.</p>
<p>Policy: Active open space corridors. In partnership with regional and local agencies, develop active open space corridors that support natural vegetation communities, scenic vistas, and sensitive habitats within former Fort Ord lands. Open space corridors should connect to formal and informal trailheads in the National Monument where possible.</p>	<p>Potentially consistent. As described in Section 2, Project Description, FORTAG would include a greenway of up to 150 feet on both sides, or 300-foot-wide total. The greenway is intended to be undeveloped, allowing for habitat and open space enjoyment. The design and alignment of FORTAG has been coordinated among local and regional agencies, such as TAMC and the cities of Seaside, Monterey, Del Rey Oaks, and Marina. FORTAG would provide an active open space corridor linking these cities, as well as the CSUMB campus to former Fort Ord lands. The Trail would provide a connection to the National Monument. The Trail would be flush or nearly flush with the ground surface, which would prevent it from obstructing views and vistas on the former Fort Ord lands. The Trail would provide views of scenic resources in the region, such as the vegetated open space and hillsides to the east in the former Fort Ord lands. Construction of the Trail would disturb sensitive habitats, such as wetlands, and require the removal of natural vegetation communities, as described in Section 4.4, Biological Resources. Mitigation Measure BIO-2(a) through BIO-2(d), described in Section 4.4, Biological Resources, would reduce impacts to sensitive natural communities and habitats.</p>
<p>Policy: Lighting. Provide appropriate lighting and visibility in park facilities while minimizing adverse impacts to adjacent properties.</p>	<p>Potentially consistent. The proposed Trail would include lighting at street crossings, as necessary, for safety purposes. All light fixtures would be solar-powered and adapt to ambient light conditions and time of day: lights would be brighter at dusk, gradually dim by midnight, and then brighter again at dawn. This would facilitate Trail users but minimize ambient light levels at night and on adjacent properties.</p>

General Plan Policy	Discussion
<p>Policy: Access to parks. Increase connectivity between parks and open space through bicycle facilities and priority pedestrian routes.</p>	<p>Potentially consistent. FORTAG would provide a pedestrian and bicycle trail and greenway that Seaside residents could use for recreational activities, such as running, cycling, bird watching, and other similar passive recreational activities. The Trail would provide an additional recreational facility to the city’s mix of existing and planned recreational facilities and connect existing parks in and near Seaside. For example, the Canyon Del Rey/SR 218 segment would link parks in Del Rey Oaks that are not currently connected, such as Work Memorial Park and Laguna Grande Regional Park. The Trail would also provide a connection to open space areas in the hillsides east of the city.</p>
<p>Policy: National Monument connectivity. Promote the development of trails within Seaside East to the National Monument.</p>	<p>Potentially consistent. FORTAG would entail the development of a trail within Seaside East and along the edge of the National Monument, thus directly implementing this policy.</p>
<p>Goal POC-5. The coast is easily accessible from existing Seaside neighborhoods and former Fort Ord lands by different transportation modes.</p>	<p>Potentially consistent. Within Seaside, FORTAG would connect to the Coastal Rec Trail via new at-grade crossing of Del Monte Boulevard near In-n-Out, therefore improving safe, alternative transportation connections to the coast from Seaside neighborhoods and former Fort Ord lands.</p>
<p>Policy: Public access areas. Strive to implement pedestrian and bicycle access improvements along Canyon Del Rey Boulevard and from the Main Gate area to provide safe passage to the coast.</p>	<p>Potentially consistent. The Trail would not provide pedestrian and bicycle access directly on Canyon Del Rey Boulevard. However, the Trail would be located next to and aligned approximately parallel with Canyon Del Rey Boulevard, thereby providing pedestrian and bicycle within the corridor. Locating the Trail off of Canyon Del Rey Boulevard would separate pedestrians and cyclists from vehicle traffic, which would improve safety. The Trail would connect to the Coastal Rec Trail, which is adjacent to the coast, as discussed for Goal POC-5 above.</p>
<p>Policy: Trails and bicycle network. Continue to participate in regional trail planning efforts, such as FORTAG, and local bicycle planning to better link existing Seaside neighborhoods and former Fort Ord lands to the California Coastal Trail.</p>	<p>Potentially consistent. FORTAG would implement this policy and would link existing Seaside neighborhoods and former Fort Ord lands to the Coastal Rec Trail.</p>
<p>Goal POC-8. Sensitive species and habitat protected on former Fort Ord lands.</p>	<p>Potentially consistent. FORTAG has been designed to minimize disturbance within sensitive habitat, such as riparian vegetation and wetlands. However, the proposed alignment includes sensitive habitat and habitat that supports special-status plant and wildlife species, including on former Fort Ord lands, as described in Section 4.4, Biological Resources. Implementation of Mitigation Measures BIO-1(a) through BIO-1(j) would minimize loss of sensitive species and their associated habitat. Implementation of Mitigation Measures BIO-2(a) through 2(d) would minimize disturbance to sensitive habitats, and Mitigation Measures 3(a) through 3(c) would reduce impacts to wetlands and ensure no net loss of wetland habitat. With implementation of these mitigation measures, impacts to specialist-status species and sensitive habitats would be less than significant, as described in Section 4.4, Biological Resources.</p>

General Plan Policy	Discussion
<p>Policy: Loss of sensitive species. Strive to minimize the loss of sensitive species and critical habitat areas in areas planned for future development.</p>	<p>Potentially consistent. FORTAG has been designed to minimize disturbance within sensitive habitat, such as riparian vegetation and wetlands. However, the proposed alignment includes sensitive habitat and habitat that supports special-status plant and wildlife species, as described in Section 4.4, Biological Resources. Implementation of Mitigation Measures BIO-1(a) through BIO-1(j) would minimize loss of sensitive species and their associated habitat. Implementation of Mitigation Measures BIO-2(a) through 2(d) would minimize disturbance to sensitive habitats, and Mitigation Measures 3(a) through 3(c) would reduce impacts to wetlands and ensure no net loss of wetland habitat. With implementation of these mitigation measures, impacts to specialist-status species and sensitive habitats would be less than significant, as described in Section 4.4, Biological Resources.</p>
<p>Policy: Habitat management areas. Continue to protect habitat management areas on former Fort Ord land, identifying habitat areas, planning carefully to avoid significant impacts, and implementing more restrictive development standards adjacent to these areas.</p>	<p>Potentially consistent. Please refer to Impact BIO-6 in Section 4.4, Biological Resources, for an analysis of consistency with the Fort Ord HMP.</p>
<p>Policy: Oak woodlands. Continue to partner with regional and local agencies to designate oak woodlands and linkages, encourage the preservation and management of oak woodland and linkages, and connect them to other parks, open spaces, and active open space corridors.</p>	<p>Potentially consistent. As described in Section 4.4, Biological Resources, oak woodlands occur within the FORTAG alignment. Construction of FORTAG would require clearing of vegetation up to a 16-foot swath for most of the alignment proposed in undeveloped areas, including oak woodland habitats on the former Fort Ord lands. This width would increase where there is a side path included. As described in Impact BIO-5 in Section 4.4, Biological Resources, Trail development could impact individual trees but would not result in a significant impact to oak woodland.</p>
<p>Policy: Development review. When projects are adjacent to or contain sensitive habitat, require projects to submit analysis showing the existing habitat, proposed plan.</p>	<p>Potentially consistent. Consistent with this policy, as described in Section 4.4, Biological Resources, a BRA has been prepared and is included as Appendix C to this EIR. The BRA includes maps showing existing habitat within the FORTAG alignment.</p>
<p>Policy: Development near habitat management areas. Require new development adjacent to habitat management areas to minimize new impervious surface, minimize light pollution, and emphasize native landscaping.</p>	<p>Potentially consistent. FORTAG has been designed to allow stormwater runoff from the Trail surface to infiltrate pervious shoulders on either side of the Trail. As described in Section 4.1, Aesthetics, there would be minimal or no lighting in open space areas, but if lighting is needed in any areas for public safety, they would need to be designed to minimize impacts to wildlife and the natural setting. Implementation of Mitigation Measure 2(d), as described in Section 4.4, Biological Resources, would require the use of native species for revegetation. FORTAG includes revegetation but not landscaping.</p>
<p>Policy: Hillside protection. When grading is necessary, encourage grading for new development that complements the surrounding natural features.</p>	<p>Potentially consistent. FORTAG would require minimal grading and would be consistent with and complement nature features in the surrounding area.</p>

General Plan Policy	Discussion
<p>Policy: Low-impact development. Use low-impact development techniques to improve stormwater quality and reduce run-off quantity.</p>	<p>Potentially consistent. A SWPPP would be implemented during construction of the proposed Trail, and it would include BMPs to prevent erosion and sedimentation of soils. The SWPPP must also contain measures to cleanup spills of construction equipment fluids, such as gasoline or motor oil. Mandatory implementation of the SWPPP and associated BMPs would protect water quality during construction. After construction, precipitation would runoff the surface of the Trail and infiltrate the ground in the shoulders, which would be pervious.</p>
<p>Policy: Dark sky lighting standards. Require new construction or modifications to existing development and public facilities to adhere to: dark sky lighting standards or the control of outdoor lighting sources by shielding light in the downward direction and limiting bright white lighting and glare.</p>	<p>Potentially consistent. The proposed Trail would include lighting at street crossings, as necessary, for safety purposes. As described in Section 4.1, Aesthetics, there would be minimal or no lighting in open space areas, but if lighting is needed in any areas for public safety, they would need to be designed to minimize impacts to wildlife and the natural setting. A glow-in-the-dark trail surface may be considered in some locations to alleviate the need for night lighting. All light fixtures would be solar-powered and adapt to ambient light conditions and time of day: lights would be brighter at dusk, gradually dim by midnight, and then brighter again at dawn. This would facilitate Trail users but minimize disturbance late at night to the views of the sky.</p>
<p>Policy: Native species. Encourage new development to support a diversity of native species and manage invasive species.</p>	<p>Potentially consistent. Implementation of Mitigation Measure BIO-2(d), as described in Section 4.4, Biological Resources, would require disturbed areas to be hydroseeded with a mix of locally native species upon completion of work in those areas. Pursuant to Mitigation Measure BIO-2(d), invasive species that colonize revegetation areas must be eradicated.</p>
<p>Policy: Invasive species. Discourage the use of plant species on the California Invasive Plant Inventory.</p>	<p>Potentially consistent. As stated above, any hydroseeding would occur with a mix of locally native species. No plants on the California Invasive Plan Inventory would be included in this mix.</p>
<p>Goal POC-11. Pollutant discharge managed to minimize adverse impacts on water quality in the Monterey Bay, Robert’s Lake, Laguna Grande and other bodies of water.</p>	<p>Potentially consistent. A SWPPP would be implemented during construction of the proposed Trail, and it would include BMPs to prevent erosion and sedimentation of soils. The SWPPP must also contain measures to cleanup spills of construction equipment fluids, such as gasoline or motor oil. Mandatory implementation of the SWPPP and associated BMPs would protect water quality during construction. After construction, precipitation would runoff the Trail surface and infiltrate the ground in the shoulders, which would be pervious. Infiltration would prevent pollutant discharges to the Monterey Bay, Robert’s Lake, Laguna Grande, and other bodies of water.</p>
<p>Policy: Storm water runoff. Enforce the reduction of storm water runoff consistent with local storm water permits.</p>	<p>Potentially consistent. The Trail would be constructed with pervious shoulders. Precipitation would run off the impervious surface of the Trail and infiltrate the pervious shoulders.</p>
<p>Policy: Storm water facilities. Incorporate storm water facilities into the design of parks and open spaces, using natural processes to capture, treat, and infiltrate storm water to the extent feasible.</p>	<p>Potentially consistent. The Trail would be constructed with pervious shoulders. Precipitation would run off the impervious surface of the Trail and infiltrate the pervious shoulders. The greenway would be maintained as open space and not modified. Therefore, no stormwater management facilities would be required.</p>

General Plan Policy	Discussion
<p>Goal POC-13. Scenic vistas, views, and highways are protected and enhanced.</p>	<p>Potentially consistent. The Trail would be flush or nearly flush with the ground surface and therefore would not obstruct scenic views and vistas. The Trail and greenway would be located on hillside areas in east Seaside. However, the greenway would consist of natural vegetation and appear similar to the surrounding vegetation cover on the hillsides. The Trail would appear similar to other roadways and trails in the viewshed. Additionally, the Trail would provide public access to areas with views and scenic vistas.</p>
<p>Policy: Views. Protect public views of significant natural features, such as the Monterey Bay, the Pacific Ocean, the surrounding mountains, and other important viewsheds, as identified in Figure 5. Review all major redevelopment projects to ensure they will not significantly obstruct views from the public right-of-way of these major scenic resources.</p>	<p>Potentially consistent. The Trail would be flush or nearly flush with the ground surface and therefore would not obstruct views of natural features. The Trail and greenway would provide additional public areas from which views of natural features would be visible.</p>
<p>Policy: Light pollution. Preserve skyward nighttime views and lessen glare by minimizing lighting levels along the shoreline by continuing to follow dark sky guidelines.</p>	<p>Potentially consistent. The proposed Trail would include lighting at street crossings, as necessary, for safety purposes. As described in Section 4.1, Aesthetics, there would be minimal or no lighting in open space areas, but if lighting is needed in any areas for public safety, they would need to be designed to minimize impacts to wildlife and the natural setting. A glow-in-the-dark trail surface may be considered in some locations to alleviate the need for night lighting. All light fixtures would be solar-powered and adapt to ambient light conditions and time of day: lights would be brighter at dusk, gradually dim by midnight, and then brighter again at dawn. This would facilitate Trail users but minimize disturbance late at night to the views of the sky.</p>
<p>Goal POC-14. A strong sense of cultural resources and historical places.</p>	<p>Potentially consistent. As described in Section 4.5, Cultural Resources, no known cultural resources on or potentially eligible for listing on the National Register of Historic Places or California Register of Historic Resources occurs within the FORTAG alignment. There would be potential to discover or unearth previously unknown resources during construction of the Trail. However, implementation of Mitigation Measure CUL-1, would protect eligible resources from adverse impacts if discovered during construction.</p>
<p>Policy: Identify and conserve resources. Identify, protect, preserve and restore significant cultural resources in the City and former Fort Ord lands in the City. Establish a known list of cultural and historic resources in the City.</p>	<p>Potentially consistent. Refer to Goal POC-14 consistency analysis above.</p>
<p>Policy: Protect Native American cultural resources. Provide for the protection and/or support of tribal cultural resources in the city and at the former Fort Ord.</p>	<p>Potentially consistent. As described in Section 4.15, Tribal Cultural Resources, no specific tribal cultural resources have been identified in the FORTAG corridor. However, during project ground disturbance, there would be potential for encountering previously undiscovered cultural resources of Native American origin that could be considered tribal cultural resources. Implementation of Mitigation Measure TCR-1 would provide protection of tribal cultural resources, as applicable.</p>

General Plan Policy	Discussion
Noise Element	
<p>Goal N-1. Appropriate noise environments that are compatible with existing and proposed land uses based on guidelines provided in the Noise Element.</p>	<p>Potentially consistent. FORTAG would facilitate pedestrian and bicycle travel, in addition to equestrian use in some areas. These activities are typically quiet but may generate noise such as people talking as they walk along the Trail. These types of noises are common of the ambient noise environment in residential neighborhood communities, around schools, and other sensitive land uses. The greenway area would promote passive recreation, such as bird watching, which also are relatively quiet activities. Therefore, FORTAG would be compatible with existing and proposed land uses along the project corridor.</p>
<p>Policy: Compatible development on former Fort Ord lands. Ensure that new development in the City’s portion of the former Fort Ord lands complies with the noise guidelines presented in the FORA Base Reuse Plan (Table 3) such that it does not adversely affect existing or proposed uses.</p>	<p>Potentially consistent. Refer to Goal N-1 consistency analysis above. The FORTAG project would not adversely affect existing or proposed uses in Seaside.</p>
Safety Element	
<p>Policy: Flood control. Require new development and redevelopment projects to provide adequate stormwater infrastructure for flood control.</p>	<p>Potentially consistent. Pervious shoulders would be included on either side of the Trail. The pervious shoulders would allow infiltration of runoff from the Trail surface. The greenway would also be natural open space and not modified. This would prevent substantial volumes of runoff from discharging to streams and to storm drain systems in the area, which would help control flooding during precipitation events. As described in Section 4.10. Hydrology and Water Quality, Mitigation Measure HYD-1(d) would require stormwater control measures to be implemented to maximize on-site infiltration of stormwater and minimize off-site stormwater discharge during operation of the project. With infiltration of runoff, flood control would be achieved.</p>
<p>Goal S-5. Minimization of risk of fire hazards in the City and wildfire hazards on former Fort Ord lands through fire prevention design and fuel reduction strategies.</p>	<p>Potentially consistent. Segments of the FORTAG alignment would be located in Very High Fire Hazard Severity Zone in east Seaside where there is vegetation cover and slopes susceptible to wildfire. However, FORTAG does not include new residences or businesses that would require an evacuation. As described in Section 2, Project Description, the alignment would intersect more than 20 existing roads in the region, providing evacuation routes off the trail in event of a fire. The Trail could be potentially used for emergency access for firefighting, which would potentially reduce the risk of wildfire hazards, depending on other factors, such as wind speed, humidity, and other environmental factors that influence fire behavior.</p>
<p>Policy: Fire prevention by design. Ensure that planning and design of development in very high fire hazard areas minimizes the risks of wildfire through structure development in accordance with the California Building Code Chapter 7A and includes adequate provisions for vegetation management, emergency access, and firefighting.</p>	<p>Potentially consistent. This policy requires new development to be in accordance with California Building Code Chapter 7A in order to minimize the risk of wildfire. California Building Code Chapter 7A pertains to the construction of new buildings. FORTAG would not involve the construction of new buildings. The Trail could be potentially used for emergency access for firefighting, which may reduce the risk of wildfire hazards, depending on other factors, such as wind speed, humidity, and other environmental factors that influence fire behavior.</p>

General Plan Policy	Discussion
<p>Policy: Fire protection of public facilities. Ensure new public facilities are located outside of Very High Fire Hazard Severity Zones when feasible.</p>	<p>Potentially inconsistent. The proposed Trail would be a public facility and many Trail segments would be located in areas of Very High Fire Hazard Severity Zone.</p>
<p>Goal S-6. Strong coordination with regulatory agencies to ensure safe and effective remediation of hazardous and toxic materials.</p>	<p>Potentially consistent. As described in Section 4.9, Hazards and Hazardous Materials, there are numerous potential sources of hazardous contamination within the proposed alignment, such as agricultural pesticides, asbestos containing materials, aerially deposited lead, and lead based paint, among others. Implementation of Mitigation Measures HAZ-3(a) requires coordination with regulatory agencies to ensure proper and complete remediation of hazardous contamination.</p>
<p>Policy: Hazardous Materials Management. Assess the use of hazardous materials as part of its environmental review and/or include approval the development of a hazardous management and disposal plan, as a condition of a project, subject to review by the County Environmental Health Department.</p>	<p>Potentially consistent. The use of hazardous materials is assessed in Section 4.9, Hazards and Hazardous Materials. As described therein, FORTAG includes the greenway and Trail; which would allow for active and passive recreation activities that do not involve the use of hazardous materials.</p>
<p>Healthy and Sustainable Community Element</p>	
<p>Policy: Regional presence as sustainability partner. Play an active role in AMBAG and the development and implementation of the Sustainable Communities Strategy. Encourage land use patterns that encourage walking, conserve land, energy, and water resources, support active transportation, reduce vehicle trips, and improve air quality.</p>	<p>Potentially consistent. The FORTAG project is included on the list of active transportation projects in Monterey County in AMBAG’s 2040 MTP/SCS. The Trail would support active transportation and reduce vehicle miles traveled, which would reduce emissions of air pollutants found in vehicle exhaust and improve air quality.</p>
<p>Policy: Active transportation. Prioritize transportation system improvements that encourage walking, biking and transit use in the areas with the highest need. This policy is implemented through the Mobility Element.</p>	<p>Potentially consistent. FORTAG would provide a pedestrian and bicycle link between the cities of Marina, Seaside, Del Rey Oaks, and Monterey, which would encourage biking and walking.</p>
<p>Policy: Park access. Increase access to existing and proposed parks and open spaces throughout historic Seaside neighborhoods and former Fort Ord lands. This policy is implemented through the Parks, Open Space, and Conservation Element.</p>	<p>Potentially consistent. The Trail would connect Seaside to open space areas and parks, such as the open space areas along Canyon Del Rey Creek, Laguna Grande, and on former Fort Ord lands. For example, the Canyon Del Rey/SR 218 segment would link parks in Del Rey Oaks that are not currently connected, such as Work Memorial Park and Laguna Grande Regional Park.</p>

General Plan Policy	Discussion
<p>Goal HSC-6. Citywide greenhouse gas emissions.</p>	<p>Potentially consistent. As described in Section 4.8, <i>Greenhouse Gas Emissions/Climate Change</i>, FORTAG would not generate vehicle miles traveled or facilitate other activities that generate ongoing emissions of greenhouse gases.</p>
<p>Mobility Element</p>	
<p>Policy: CSUMB and former Fort Ord lands. Increase multimodal access to CSUMB and former Fort Ord lands.</p>	<p>Potentially consistent. The Trail would traverse former Fort Ord lands, providing multimodal access to the area from developed areas of Seaside, as well as other neighboring jurisdictions. FORTAG would also provide trail connections to the CSUMB campus.</p>
<p>Policy: Greenhouse gas emissions and vehicle miles traveled (VMT) reductions. Support development and transportation improvements that help reduce greenhouse gas emissions and VMT. Strive to reduce VMT below regional averages on a “per resident” and “per employee” basis.</p>	<p>Potentially consistent. FORTAG would not generate VMT because it is a pedestrian and bicycle trail.</p>
<p>Policy: Multi-modal connectivity. Promote pedestrian and bicycle improvements that improve connectivity between existing and new development.</p>	<p>Potentially consistent. The Trail would promote pedestrian and bicycle travel because it would provide a connection to employment and residential destinations in the region, as well as points and places of interest, such as the National Monument, CSUMB, and Laguna Grande. The alignment would also provide connection to planned new development, such as Seaside East, which is envisioned in Draft Seaside 2040.</p>
<p>Policy: FORTAG trail. Support implementation of the FORTAG regional walking and bicycling trail. Coordinate with FORTAG on trail design and connectivity.</p>	<p>Potentially consistent. The proposed project is FORTAG, which would provide a regional walking and bicycling trail.</p>
<p>Policy: Connections to Fort Ord National Monument. Promote the development of safer routes and trails connecting Seaside to the National Monument, and support provision of visitor serving amenities that complement bicycling.</p>	<p>Potentially consistent. The Trail would provide a connection between Seaside and the National Monument.</p>
<p>Policy: Bikeway network completion. Strive to complete the citywide bicycle network to create a full network of bicycle facilities throughout Seaside.</p>	<p>Potentially consistent. The Trail would provide additional bicycle trail to the citywide bicycle network.</p>

General Plan Policy	Discussion
<p>Goal M-7. A safe transportation system that eliminates traffic-related fatalities and reduces non-fatal injury collisions.</p>	<p>Potentially consistent. With the exception of approximately 2,000 feet, the Trail would be located off of streets and separated from vehicle traffic. The proposed project would include approximately 28 at-grade crossings of roadways, not all of which would be in Seaside. As described in Section 4.14, Transportation, at-grade crossings would require improvements and modifications, such as: roadway and lane modifications; construction of medians, curb extensions, warning devices, and traffic control devices; and enhanced safety signing and striping. Lighting would also be provided as crossings, as necessary, to increase safety. Increasing the safety at locations where the Trail would cross roadways would reduce the potential for collisions between Trail users and vehicles.</p>
<p>Policy: Safety for all modes. Ensure that planned non-transportation capital improvement projects, on or near a roadway, consider safety for all modes of travel during construction and upon completion.</p>	<p>Potentially consistent. The proposed project would include approximately 28 at-grade crossings of roadways, not all of which would be in Seaside. As described in Section 4.14, Transportation, at-grade crossings would require improvements and modifications, such as: roadway and lane modifications; construction of medians, curb extensions, warning devices, and traffic control devices; and enhanced safety signing and striping. Lighting would also be provided as crossings, as necessary, to increase safety.</p>
<p>Goal M-11. Integrate Seaside’s circulation system with the larger regional transportation system to ensure the economic well-being of the community.</p>	<p>Potentially consistent. FORTAG would provide pedestrian and bicycle access to neighborhoods and open space areas in Seaside, Marina, Del Rey Oaks, and Monterey, as well as Monterey County and the CSUMB campus. Residents and workers in these areas would be able to utilize the Trail to access to employment and economic centers in this region.</p>
<p>Policy: Coordination with neighboring jurisdictions and planned regional improvements. Continue to coordinate pedestrian and bicycle improvements with the plans of neighboring jurisdictions and the region.</p>	<p>Potentially consistent. FORTAG is a regional trail and greenway that has been coordinated with neighboring jurisdictions, including Monterey County; the cities of Monterey, Del Rey Oaks, and Marina; CSUMB; and TAMC.</p>
<p>Policy: TAMC and countywide planning efforts. Continue to support the overall vision, goals, objectives and policies as a partner in TAMC. The City recognizes the regional significance of connecting bicycle and pedestrian facilities, sharing consistent guidelines, needs, and preferences within the City and the greater Monterey County.</p>	<p>Potentially consistent. FORTAG is a regional trail and greenway that has been coordinated with neighboring jurisdictions, including Monterey County; the cities of Monterey, Del Rey Oaks, and Marina; CSUMB; and TAMC.</p>

Table 4.11-7 City of Monterey General Plan Policy Consistency Analysis

General Plan Policy	Discussion
Conservation Element	
<p>Goal b.1. Protect creeks, lakes, wetlands, beaches, and Monterey Bay from pollutants discharged to the storm drain system.</p>	<p>Potentially consistent. A SWPPP would be implemented during construction of the proposed Trail, and it would include BMPs to prevent erosion and sedimentation of soils. The SWPPP must also contain measures to cleanup spills of construction equipment fluids, such as gasoline or motor oil. Mandatory implementation of the SWPPP and associated BMPs would protect water quality during construction. After construction, precipitation would runoff the Trail surface and infiltrate the ground in the shoulders, which would be pervious. Infiltration would minimize the amount of untreated stormwater runoff that discharges to the storm drain system. Implementation of BMPs and infiltration of runoff would protect creeks, lakes, wetlands, beaches, and the Monterey Bay from discharges of pollutants from the storm drain system.</p>
<p>Policy b.2. Minimize particulate matter pollution with erosion and sediment control in waterways and on construction sites and with regular street sweeping on City streets.</p>	<p>Potentially consistent. Refer to the consistency analysis for Goal b.1, above.</p>
<p>Policy b.3. Minimize development or removal of vegetation on areas particularly susceptible to erosion, such as steep slopes, and require programs to minimize erosion when development occurs in these areas.</p>	<p>Potentially consistent. Refer to the consistency analysis for Goal b.1, above.</p>
<p>Policy b.4. Retain and restore wetlands, riparian areas, and other habitats, which provide remediation for degraded water quality.</p>	<p>Potentially consistent. FORTAG would not impact wetlands, riparian vegetation, or other areas that provide remediation for degraded water quality within the City of Monterey. However, other segments of the Trail outside of city limits would require impacts wetlands and riparian habitat, as described in Section 4.4, Biological Resources. Mitigation Measures BIO-1(c), BIO-3(a), BIO-3(b), and BIO-3(c) would reduce impacts to wetlands and require mitigation consistent with regulatory requirements. Disturbance to sensitive habitat, including riparian habitat, would be minimized pursuant to Mitigation Measures BIO-2(a) and BIO-2(b), described in Section 4.4, Biological Resources. With implementation of these mitigation measures, impacts would be less than significant.</p>
<p>Goal c. Reduce fixed source and transportation-based air pollution.</p>	<p>Potentially consistent. Construction of FORTAG would generate temporary emissions, such as exhaust from construction equipment and dust from ground disturbance. However, these emissions would stop upon completion of construction activities. Operation of FORTAG would reduce the long-term emissions of air pollutants because it would provide a route for pedestrians and bicyclists to move through the region. Walking, running, and bicycling do not generate air pollution.</p>
<p>Policy c.1. Reduce air pollution generated by motor vehicles by encouraging the use of public transit, car-pooling, bicycles, and walking as alternatives. Policies to achieve these goals are found in the Circulation Element.</p>	<p>Potentially consistent. Refer to consistency analysis above for Goal c.</p>

General Plan Policy	Discussion
<p>Goal d. Protect the character and composition of existing native vegetative communities. Conserve, manage, and restore habitats for endangered species, and protect biological diversity represented by special-status plant and wildlife species.</p>	<p>Potentially consistent. FORTAG has been designed to minimize disturbance within sensitive habitat, such as riparian vegetation and wetlands. However, the proposed alignment includes sensitive habitat and habitat that supports special-status plant and wildlife species, as described in Section 4.4, Biological Resources. Implementation of Mitigation Measures BIO-1(a) through BIO-1(j) would minimize loss of sensitive species and their associated habitat. Implementation of Mitigation Measures BIO-2(a) through 2(d) would minimize disturbance to sensitive habitats, and Mitigation Measures 3(a) through 3(c) would reduce impacts to wetlands and ensure no net loss of wetland habitat. With implementation of these mitigation measures, impacts to specialist-status species and sensitive habitats would be less than significant, as described in Section 4.4, Biological Resources.</p>
<p>Policy d.1. Protect existing native plants and promote the use of locally occurring, native vegetation for public and private landscaping and revegetation efforts.</p>	<p>Potentially consistent. As noted in Section 2, Project Description, revegetation of construction disturbance with native vegetation is proposed and would occur as soon as possible following completion of construction activities. Implementation of Mitigation Measure BIO-2(d), as described in Section 4.4, Biological Resources, would require disturbed areas to be hydroseeded with a mix of locally native species upon completion of work in those areas. In areas where construction is ongoing, hydroseeding would occur where no construction activities have occurred within six weeks since ground disturbing activities ceased.</p>
<p>Policy d.3 Protect existing sensitive habitats by careful planning to avoid and/or mitigate significant impacts to habitat areas identified as having high and moderate biological values.</p>	<p>Potentially consistent. The proposed FORTAG alignment includes sensitive habitat and wetlands, which would be impacted by construction of FORTAG, as described in Section 4.4, Biological Resources. Implementation of Mitigation Measures BIO-2(a) through 2(d) would minimize disturbance to sensitive habitats, and Mitigation Measures 3(a) through 3(c) would reduce impacts to wetlands and ensure no net loss of wetland habitat. With implementation of these mitigation measures, impacts to sensitive habitats would be less than significant, as described in Section 4.4, Biological Resources.</p>
<p>Policy d.5. Reduce biotic impacts to a less-than-significant level on project sites by ensuring that mitigation measures identified in biotic reports are incorporated as conditions of approval for development projects. Compliance with the City Tree Ordinance is the mechanism that will be used to address impacts of tree removals. As mitigation for significant impacts, avoidance, replacement, restoration of habitats on- or off-site, or other measures may be required.</p>	<p>Potentially consistent. As described in Section 4.4, Biological Resources, a Biological Resources Assessment has been prepared for the project and is included as Appendix C to this EIR. Measures and recommendations to reduce or avoid impacts to biological resources in the Biological Resources Assessment have been incorporated into this EIR at mitigation measures. As described in Section 4.4, Biological Resources, all required tree removal would be in accordance with local tree ordinances.</p>
<p>Policy d.6. Within identified habitat areas with high biological value, the City will provide for a focused evaluation of areas identified as appropriate habitat for special-status species during the project review and approval process.</p>	<p>Potentially consistent. Section 4.4, Biological Resources, provides a focused evaluation of potential biological impacts, consistent with the requirements of this General Plan policy.</p>

General Plan Policy	Discussion
Open Space Element	
<p>Goal d. Preserve and improve lakes and waterways as important visual, habitat, flood protection, and recreation resources.</p>	<p>Potentially consistent. The Trail alignment would not impact lakes or waterways that occur within the city limits. However, the Trail alignment is adjacent to Laguna Grande and would end at an intersection with the Coastal Rec Trail next to Roberts Lake, within proximity to the city limits. The Trail would be located on existing trails and roads near Laguna Grande and Roberts Lake, which would reduce visual impacts and preserve habitat and open space around the lakes. The Trail would also be located adjacent to Canyon Del Rey Creek outside of city limits, but within proximity to Laguna Grande. The Trail would be primarily on previously developed areas (existing trails, walkways) in the open space and green belt along Canyon Del Rey Creek. Construction of the Trail would require widening in some areas, but disturbance would be minimized pursuant to Mitigation Measures BIO-2(a) and BIO-2(b), described in Section 4.4, Biological Resources.</p>
<p>Policy d.1. Continue to preserve Lake El Estero, Del Monte Lake, Roberts Lake, Laguna Grande, Washerwoman’s Pond, and Lagunita Mirada as visual open space features.</p>	<p>Potentially consistent. The Trail would be located on existing trails and roads near Laguna Grande and Roberts Lake, which would reduce visual impacts and preserve the open space around the lakes. The Trail would not be located near Lake El Estero, Del Monte Lake, Washerwoman’s Pond, or Lagunita Mirada and would have no impact to open space areas at these lakes.</p>
<p>Policy d.4. Protect native plants, animals, and native habitats in Lake El Estero, Del Monte Lake, and Laguna Grande.</p>	<p>Potentially consistent. The Trail would be located on existing trails and roads near Laguna Grande, which would reduce impact to native plants and wildlife and habitat in the lake. The Trail would not be located near Lake El Estero or Del Monte Lake and would have no impact to plants or wildlife at these lakes.</p>
<p>Goal e. Ensure streams continue to function as natural flood control channels and habitat for native plants and animals.</p>	<p>Potentially consistent. The Trail would not be located along streams within the city limits of Monterey. However, it would be located adjacent to Canyon Del Rey Creek in the City of Del Rey Oaks, in proximity to the city limits. The Trail would be primarily on previously developed areas (existing trails, walkways) in the open space and green belt along Canyon Del Rey Creek. Construction of the Trail would require widening in some areas, but disturbance would be minimized pursuant to Mitigation Measures BIO-2(a) through BIO-2(d), described in Section 4.4, Biological Resources. Minimizing disturbance would reduce impacts to native plants and animals along the creek to less than significant. FORTAG would not impact flood flows in the creek.</p>
<p>Policy e.1. Maintain the City’s streams by controlling erosion.</p>	<p>Potentially consistent. Refer to the consistency analysis for Goal b.1, above.</p>
<p>Goal f. Maintain and enhance the park system for City residents and visitors.</p>	<p>Potentially consistent. FORTAG would provide a pedestrian and bicycle trail and greenway that Seaside residents could use for recreational activities, such as running, cycling, bird watching, and other similar passive recreational activities. The Trail would provide an additional recreational facility to the city’s mix of existing and planned facilities. Therefore, while FORTAG would not be a park, it would provide additional opportunities for outdoor recreation, similar to parks. The Trail would be maintained as necessary to ensure use and functionality.</p>
<p>Policy f.3. Plan, acquire, design, develop, and maintain areas and facilities to meet the leisure and aesthetic needs of the residents of the City.</p>	<p>Potentially consistent. FORTAG would provide a pedestrian and bicycle trail and greenway that Seaside residents could use for recreational activities, such as running, cycling, bird watching, and other similar passive recreational activities. The Trail would provide an additional recreational facility to the city’s mix of existing and planned facilities.</p>

General Plan Policy	Discussion
<p>Policy g.1. Create a trail plan to link existing open spaces and pedestrian areas with trails for public use.</p>	<p>Potentially consistent. While this policy intends for the City of Monterey to develop a trail plan and FORTAG is not plan, it is shown in some trail and active transportation plans applicable to the region, such as TAMC’s Active Transportation Plan as described in Section 4.14, Transportation. FORTAG would provide pedestrian and bicycle access to neighborhoods and open space areas in Seaside, Marina, Del Rey Oaks, and Monterey, as well as Monterey County and the CSUMB campus. For example, the Canyon Del Rey/SR 218 segment would connect existing parks in proximity to Monterey. Residents and workers in these areas, as well as any other person, would be able to utilize the Trail to access regional open space and park areas.</p>
<p>Safety Element</p>	
<p>Goal b. Minimize landslide hazards by locating development away from steep slopes and by requiring excellent grading practices.</p>	<p>Potentially consistent. The Trail would be primarily on previously developed areas, such as existing trails and walkways, which would minimize the extent of grading required. However, construction of the Trail would require widening of existing trails in some areas and some segments would occur where no development currently exists. These segments could require grading and may occur within hillside areas, although not within the City of Monterey. Nonetheless, grading would be in accordance with the applicable jurisdiction’s municipal code. Additionally, because FORTAG does not include residential development or development of other habitable or occupiable structures, the risk of exposing people and structures to landslides from slope failure would be minimized.</p>
<p>Policy b.2. Minimize grading in hillside areas.</p>	<p>Potentially consistent. Refer to consistency analysis above for Goal b.</p>
<p>Policy b.3. Minimize cutting and removal of vegetation during grading operations.</p>	<p>Potentially consistent. Construction of the Trail would require grading that results in the cutting and removal of vegetation cover. As noted in Section 2, Project Description, revegetation of construction disturbance with native vegetation is proposed and would occur as soon as possible following completion of construction activities. Implementation of Mitigation Measure BIO-2(d), as described in Section 4.4, Biological Resources, would require disturbed areas to be hydroseeded with a mix of locally native species upon completion of work in those areas. In areas where construction is ongoing, hydroseeding would occur where no construction activities have occurred within six weeks since ground disturbing activities ceased.</p>
<p>Policy c.4. Design projects to: (1) maximize the amount of natural drainage that can be percolated into the soil, and (2) minimize direct overland runoff onto adjoining properties, water courses, and streets. This approach to handling stormwater reduces the need for costly storm drainage improvements, which are often miles downstream. Building coverage and paved surfaces must be minimized and incorporated within a system of porous pavements, ponding areas, and siltation basins.</p>	<p>Potentially consistent. Pervious shoulders would be included on either side of the Trail. The pervious shoulders would allow infiltration of runoff from the Trail surface.</p>

General Plan Policy	Discussion
Historic Preservation Element	
<p>Policy a.2. Encourage the collection and preservation of artifacts, print materials, oral histories, and ephemera.</p>	<p>Potentially consistent. As described in Section 4.5, Cultural Resources, no known cultural resources on or potentially eligible for listing on the National Register of Historic Places or California Register of Historic Resources occurs within the FORTAG alignment. There would be potential to discover or unearth previously unknown resources during construction of the Trail. However, implementation of Mitigation Measure CUL-1, would protect eligible resources from adverse impacts if discovered during construction.</p>
<p>Policy a.4. Utilize the CEQA process for projects located in archaeologically sensitive areas to identify and mitigate potential impacts on archaeological resources.</p>	<p>Potentially consistent. Section 4.5, Cultural Resources, of this EIR provides an analysis of potential impacts to cultural resources, including archaeological resources, consistent with the <i>CEQA Guidelines</i> and processes established therein. Refer to the consistency analysis above for Policy a.2.</p>
Circulation Element	
<p>Goal d. Promote a pedestrian/bicycle-friendly environment where public spaces, streets, and off-street paths offer a level of convenience, safety, and attractiveness that encourage and reward the use of alternative modes of transportation.</p>	<p>Potentially consistent. FORTAG would provide pedestrian and bicycle access to neighborhoods and open space areas in Seaside, Marina, Del Rey Oaks, and Monterey, as well as Monterey County and the CSUMB campus. Residents and workers in these areas would be able to utilize the Trail to access to employment centers, open space areas, and other destinations and places of interest in the region, such as schools and the National Monument. Because the Trail would link these cities and destinations, and would almost be entirely separated from vehicle traffic, it would offer a level of safety and convenience.</p>
<p>Policy d.1. Build on the success of the Recreation Trail to make walking and bicycling through Monterey safe and enjoyable.</p>	<p>Potentially consistent. The Trail would connect to the Coast Rec Trail and provide an additional route for walking and bicycling through Monterey and neighboring cities in the area, including Seaside, Del Rey Oaks, and Marina.</p>
<p>Policy d.6. Develop pedestrian and bicycle paths in hillside and other open-space areas as part of the regional trail system and/or as links between major greenbelt and recreation areas.</p>	<p>Potentially consistent. Within the City of Monterey, the FORTAG alignment would not coincide with hillside areas. However, the alignment would occur with open space areas around Laguna Grande, and provide a pedestrian and bicycle connection to open space areas in hillsides and former Fort Ord lands to the east of Seaside, Del Rey Oaks, and Marina. The Canyon Del Rey/SR 218 segment would connect existing parks in proximity to Monterey. As described in Section 2, Project Description, FORTAG would also include a greenway where space permits.</p>

Table 4.11-8 City of Del Rey Oaks General Plan Policy Consistency Analysis

General Plan Policy	Discussion
Land Use Element	
<p>Policy L-1. The City of Del Rey Oaks shall work with adjoining cities, special districts, County, Fort Ord Reuse Authority and regional agencies on matters of zoning, land use planning, transportation planning and watershed management to assure that all development projects and actions are consistent with the goals and policies contained in the City’s General Plan, and that such projects and actions shall minimize adverse community and environmental impacts.</p>	<p>Potentially consistent. FORTAG is a regional trail that is being planned amongst all the affected and involved jurisdictions, including Del Rey Oaks, Marina, Seaside, Monterey, and Monterey County, as well as TAMC. FORTAG has been designed to minimize environmental impacts, and additional mitigation measures identified throughout this EIR would further reduce or avoid impacts of the Trail. The consistency analysis presented in this table demonstrates consistency with General Plan policies pertaining to environmental impacts.</p>
<p>Policy L-9. Native vegetation along Canyon Del Rey should be preserved and entrances to the City enhanced by landscaping.</p>	<p>Potentially consistent. The Trail would be primarily on previously developed areas (existing trails, walkways) along Canyon Del Rey Creek, which would reduce impacts to surrounding vegetation. Construction of the Trail would require widening in some areas along Canyon Del Rey Creek, but new disturbance would be minimized pursuant to Mitigation Measures BIO-2(a) and BIO-2(b), described in Section 4.4, Biological Resources.</p>
Circulation Element	
<p>Goal 2. Provide or promote travel by means other than the single-occupant automobile.</p>	<p>Potentially consistent. The Trail would provide a pedestrian and bicycle route that links Marina, Seaside, Del Rey Oaks, and Monterey, as well as the CSUMB campus. Thus, the Trail would provide an alternative to vehicles for commuting between destinations in these cities.</p>
<p>Goal 4. Improve and maintain a transportation network of streets, transit, and pedestrian paths and bikeways.</p>	<p>Potentially consistent. The Trail would provide a pedestrian and bicycle route through Del Rey Oaks that also connects to the cities of Monterey, Seaside, and Marina, as well as the CSUMB campus. The Trail would connect to other trails in the region, such as the Coastal Rec Trail. The Trail would also be part of the larger transportation network, as people would use it for commuting and transportation in addition to active and passive recreation purposes.</p>
Parks and Recreation Element	
<p>Policy PS-2. New development should provide landscaping, natural areas of open space, recreation areas or amenities wherever appropriate.</p>	<p>Potentially consistent. This General Plan policy intends to require open space and recreational facilities within new development, such as playgrounds in residential subdivisions or outdoor lawn areas in mixed use development. FORTAG is not new development in this sense. Nonetheless, FORTAG would provide occupants of existing and new development in Del Rey Oaks with pedestrian and bicycle access to open spaces areas along Canyon Del Rey and to the hillsides east of Del Rey Oaks. The Trail would not include landscaping but would provide a greenway of up to 300 feet surrounding the alignment.</p>

General Plan Policy	Discussion
Open Space/Conservation Element	
<p>Goal 1. Protect the City’s natural, cultural, visual and historical resources.</p>	<p>Potentially consistent. As described in Impact BIO-2, in Section 4.4, Biological Resources, construction of FORTAG would require the removal of natural vegetation communities. Implementation of Mitigation Measures BIO-2(a) through BIO-2(d) would minimize impacts to natural vegetation communities. The Trail would be flush or nearly flush with the ground surface, which would prevent it from obstructing views in Del Rey Oaks. As described in Section 4.5, Cultural Resources, no known cultural resources on or potentially eligible for listing on the National Register of Historic Places or California Register of Historic Resources occurs within the FORTAG alignment. There would be potential to discover or unearth previously unknown resources during construction of the Trail. However, implementation of Mitigation Measure CUL-1, would protect eligible resources from adverse impacts if discovered during construction.</p>
<p>Goal 2. Preserve and protect the water quality, runoff, flow, and other resources of the Canyon Del Rey drainageway.</p>	<p>Potentially consistent. A SWPPP would be implemented during construction of the proposed Trail, and it would include BMPs to prevent erosion and sedimentation of soils. The SWPPP must also contain measures to cleanup spills of construction equipment fluids, such as gasoline or motor oil. Mandatory implementation of the SWPPP and associated BMPs would protect water quality during construction. After construction, precipitation would runoff the Trail surface and infiltrate the ground in the shoulders, which would be pervious. Infiltration would minimize the amount of untreated stormwater runoff that discharges to the Canyon Del Rey drainageway.</p>
<p>Goal 3. Provide open space that meets the needs of the city.</p>	<p>Potentially consistent. The Trail would provide a pedestrian and trail connection to open spaces areas along Canyon Del Rey Creek and on the hillsides east of the city. FORTAG would also provide a greenway of up to 300 feet surrounding the alignment, essentially preserving open space.</p>
<p>Goal 4. Protect the existing natural resources (the creeks and other areas identified as environmentally sensitive habitat).</p>	<p>Potentially consistent. The Trail has been designed and aligned to avoid wetlands to the extent possible. However, the Trail would result in impacts to a wetland area next to Canyon Del Rey and to wetlands at Frog Pond, on the north side of Canyon Del Rey Boulevard, as described in Section 4.4, Biological Resources. Mitigation Measures BIO-1(c), BIO-3(a), BIO-3(b), and BIO-3(c) would reduce impacts to wetlands and require mitigation consistent with regulatory requirements. Disturbance to sensitive habitat would be minimized pursuant to Mitigation Measures BIO-2(a) and BIO-2(b), described in Section 4.4, Biological Resources.</p>
<p>Goal 5. Discourage development of areas that should be permanently protected for future generations because of their importance in maintaining vegetation and wildlife, and protecting public health and safety.</p>	<p>Potentially consistent. FORTAG would not induce population or employment growth in the region. Therefore, FORTAG would not encourage development in the region, including in areas that should be permanently protected for future generations because of their importance in maintaining vegetation and wildlife, and protecting public health and safety. However, as described in Section 4.4, Biological Resources, FORTAG would impact special-status species and sensitive habitats. Implementation of all mitigation identified in Section 4.4, Biological Resources, would reduce the potential impacts to vegetation and wildlife.</p>

General Plan Policy	Discussion
<p>Policy C/OS-3. Wildlife habitat and wildlife corridors shall be preserved.</p>	<p>Potentially consistent. As described in Section 4.4, Biological Resources, construction of the Trail would disturb sensitive habitats, such as wetlands, and require the removal of natural vegetation communities, as described in Section 4.4, Biological Resources. Mitigation Measure BIO-2(a) through BIO-2(d), described in Section 4.4, Biological Resources, would reduce impacts to sensitive natural communities and habitats. As described in Section 4.4, Biological Resources, the Canyon Del Rey/SR 218, Ryan Ranch, National Monument Loop, and Northern Loop Trail segments contain a wildlife corridor. While the Trail would bisect the wildlife corridor, Trail use would not be expected to interfere with wildlife movement, as described in Section 4.4, Biological Resources.</p>
<p>Policy C/OS-4. Significant stands of riparian vegetation shall be subject to only minimal cutting and removal, and then only when proven unavoidable.</p>	<p>Potentially consistent. The FORTAG alignment has been designed to avoid riparian areas to the extent possible. However, as described in Section 4.4, Biological Resources, FORTAG would require the removal of approximately 0.88 acre of riparian woodland and arroyo willow vegetation. This removal is necessary because the Trail must be constructed to the appropriate width per design standards and requirements. Implementation of Mitigation Measure BIO-2(a) and BIO-2(c) would require disturbance in sensitive habitats, including riparian vegetation, to be minimize to the greatest extent feasible. Mitigation Measure BIO-2(b) would require compensatory mitigation for impacts to sensitive habitats, including riparian vegetation.</p>
<p>Policy C/OS-5. The existing system of green belts and open spaces should be preserved and maintained.</p>	<p>Potentially consistent. The Trail would be primarily on previously developed areas (existing trails, walkways) in the open space and green belt along Canyon Del Rey Creek. Construction of the Trail would require widening in some areas, but disturbance would be minimized pursuant to Mitigation Measures BIO-2(a) and BIO-2(b), described in Section 4.4, Biological Resources. As described in Section 2, Project Description, FORTAG would include a greenway of up to 150 feet on both sides, or 300-foot-wide total. The greenway is intended to be undeveloped, allowing for habitat and open space enjoyment. No trails would be constructed in the greenway, and use of the greenway by hikers, mountain bikers, and/or equestrians would be discouraged except within the side path, where included. Therefore, the FORTAG project would be consistent in providing and preserving open space lands through the greenway where space permits.</p>
<p>Policy C/OS-5a. Encourage the conservation and preservation of irreplaceable natural resources and open space at former Fort Ord.</p>	<p>Potentially consistent. Irreplaceable natural resources, such as special-status species, could occur within the FORTAG alignment and could be impact by Trail construction, as described in Section 4.4, Biological Resources. However, implementation of Mitigation Measures BIO-1(a) through BIO-1(j) would reduce potential impacts to special status species, including avoidance and preservation of species if found in the alignment. Other irreplaceable natural resources include cultural resources. As described in Section 4.5, Cultural Resources, no known cultural resources on or potentially eligible for listing on the National Register of Historic Places or California Register of Historic Resources occurs within the FORTAG alignment. There would be potential to discover or unearth previously unknown resources during construction of the Trail. However, implementation of Mitigation Measure CUL-1, would protect eligible resources from adverse impacts if discovered during construction. FORTAG would impact other natural resources, such as trees and wetlands; however, these resources are not irreplaceable because new trees can be planted, and wetland mitigation can be provided in the form of establishing new wetland areas.</p>

General Plan Policy	Discussion
<p>Policy C/OS-5e. The City shall ensure that all habitat conservation and corridor areas identified in the Fort Ord Habitat Management Plan (HMP) are protected from degradation due to development within or adjacent to these areas. This shall be accomplished by assuring that all new development in the Fort Ord Reuse Area adheres to the management requirements of the HMP and the policies of the Fort Ord Reuse Area Plan.</p>	<p>Potentially consistent. Please refer to Impact BIO-6 in Section 4.4, Biological Resources, for an analysis of consistency with the Fort Ord HMP.</p>
<p>Policy C/OS-5f. The City shall encourage the preservation of small pockets of habitat and populations of special-status species within and around developed areas, in accordance with the recommendations of the HMP and Fort Ord Reuse Area Plan. This shall be accomplished by requiring project applicants to conduct surveys to verify sensitive species and/or habitats on the site and developing a plan for avoiding or salvaging these resources, where feasible.</p>	<p>Potentially consistent. Please refer to Impact BIO-6 in Section 4.4, Biological Resources, for an analysis of consistency with the Fort Ord HMP.</p>
<p>Policy C/OS-5g. The City shall provide for the protection and mitigation of impacts of wetland areas consistent with applicable state and federal regulations.</p>	<p>Potentially consistent. The Trail has been designed and aligned to avoid wetlands to the extent possible. However, the Trail would result in impacts to a wetland area next to Canyon Del Rey and to wetlands at Frog Pond, on the north side of Canyon Del Rey Boulevard, as described in Section 4.4, Biological Resources. Mitigation Measures BIO-1(c), BIO-3(a), BIO-3(b), and BIO-3(c) would reduce impacts to wetlands and require mitigation consistent with regulatory requirements.</p>
<p>Policy C/OS-6. The City will encourage the Monterey Regional Parks District to ensure water quality of the Frog Pond, develop and maintain areas of open viewsheds of the Frog Pond along Canyon Del Rey and North/South Road.</p>	<p>Potentially consistent. A SWPPP would be implemented during construction of the proposed Trail, and it would include BMPs to prevent erosion and sedimentation of soils. The SWPPP must also contain measures to cleanup spills of construction equipment fluids, such as gasoline or motor oil. Mandatory implementation of the SWPPP and associated BMPs would protect water quality during construction. After construction, precipitation would runoff the Trail surface and infiltrate the ground in the shoulders, which would be pervious. Infiltration would reduce the volume of runoff that discharges to Frog Pond. The trail would be flush or nearly flush with the ground surface and would therefore not obstruct open viewsheds of Frog Pond.</p>
<p>Policy C/OS-7. Maintain the green belt along the Canyon Del Rey drainageway.</p>	<p>Potentially consistent. The Trail would be primarily on previously developed areas (existing trails, walkways) along Canyon Del Rey Creek. Construction of the Trail would require widening in some areas, but disturbance would be minimized pursuant to Mitigation Measures BIO-2(a) and BIO-2(b), described in Section 4.4, Biological Resources.</p>

General Plan Policy	Discussion
<p>Policy C/OS-8. Surface water quality shall be maintained, and areas of groundwater recharge kept free of contamination.</p>	<p>Potentially consistent. A SWPPP would be implemented during construction of the proposed Trail, and it would include BMPs to prevent erosion and sedimentation of soils. The SWPPP must also contain measures to cleanup spills of construction equipment fluids, such as gasoline or motor oil. Mandatory implementation of the SWPPP and associated BMPs would protect water quality during construction. After construction, precipitation would runoff the Trail surface and infiltrate the ground in the shoulders, which would be pervious. Infiltration would allow for natural treatment of runoff.</p>
<p>Policy C/OS-13. The City will encourage the improvement of air quality in Del Rey Oaks and in the region by implementing the measures described in the Monterey Bay Air Quality Management Plan. Such measures include, but are not limited to, measures to reduce dependence on the automobile and encourage the use of alternate modes of transportation such as buses, bicycling and walking.</p>	<p>Potentially consistent. Construction of FORTAG would generate temporary emissions, such as exhaust from construction equipment and dust from ground disturbance. However, these emissions would stop upon completion of construction activities. Operation of FORTAG would reduce the long-term emissions of air pollutants because it would provide a route for pedestrians and bicyclists to move through the region. Walking, running, and bicycling do not generate air pollution. As described in Section 4.3, Air Quality, FORTAG would not conflict with or obstruct implementation of the AQMP.</p>
<p>Policy C/OS-15. If development of a site uncovers cultural resources, the recommendations of Appendix K, of the Guidelines for Implementation of the California Environmental Quality Act shall be followed for identification, documentation, and preservation of the resource.</p>	<p>Potentially consistent. As described in Section 4.5, Cultural Resources, no known cultural resources on or potentially eligible for listing on the National Register of Historic Places or California Register of Historic Resources occurs within the FORTAG alignment. There would be potential to discover or unearth previously unknown resources during construction of the Trail. However, implementation of Mitigation Measure CUL-1, would protect eligible resources from adverse impacts if discovered during construction.</p>

Table 4.11-9 Land Use Plan for the Laguna Grande/Roberts Lake Local Coastal Program Policy Consistency Analysis

LCP Policy	Discussion
Natural Coastal Resources	
<p>Policy A. Along the slopes at the south end of Laguna Grande, retain the area of coastal oaks in its natural state as a habitat for area wildlife</p>	<p>Potentially consistent. As described in Section 4.4, Biological Resources, coastal oak vegetation cover within the FORTAG alignment occurs only along the North Loop Segment. The North Loop Segment is in Marina, several miles north of Laguna Grande/Roberts Lake. The coast oaks along the southern end of Laguna Grande are not within the FORTAG alignment and would not be impacted.</p>
Public and Coastal Related Use and Access	
<p>Policy C.4. Develop the pedestrian/bikeway (a minimum width of 10 feet) shown in Figure 7. Where feasible, said trail shall be set back a minimum of 10 feet as measured from the inland extent of emergent wetland vegetation.</p>	<p>Potentially consistent. As described in Section 4.4, Biological Resources, construction of a paved trail at Laguna Grande would require widening of the existing trail within jurisdictional wetland areas. Implementation of Mitigation Measures BIO-3(a) through BIO-3(d) would reduce impacts to wetlands.</p>
Public Recreation	
<p>Policy C.1. Provide access to and around Laguna Grande as discussed in the Public Access section.</p>	<p>Potentially consistent. The proposed Trail alignment provides access to and around Laguna Grande.</p>
<p>Policy C.9. To provide for continuous access around Laguna Grande, the City of Seaside is to coordinate the provision of a pedestrian/bike bridge crossing the channel at Del Monte Boulevard. Routing of this improvement shall be designed so as to minimize disturbance of sensitive habitat areas.</p>	<p>Potentially consistent. As discussed in Section 2, Project Description, and noted above, the Trail would cross Del Monte Boulevard to connect with the Coastal Rec Trail at Roberts Lake Park. As specified in the FORTAG MA, TAMC would be responsible for the design and construction of FORTAG, and the underlying jurisdictions would be responsible for the maintenance of trail segments located in respective jurisdictions. Implementation of the Canyon Del Rey/SR 218 segment would provide continuous access around Laguna Grande, thereby connecting inland areas to the coast.</p>

As shown in **Table 4.11-3** through **Table 4.11-9**, FORTAG would be potentially consistent with general plan goals and policies with implementation of the mitigation measures identified within this EIR. However, as indicated in **Table 4.11-6**, FORTAG would be potentially inconsistent with the following policy in Draft Seaside 2040:

Policy: Fire protection of public facilities. Ensure new public facilities are located outside of Very High Fire Hazard Severity Zones when feasible.

FORTAG would be potentially inconsistent with this policy because it would be a public facility and much of the Trail and potentially areas of the greenway would be located in Very High Fire Hazard Severity Zone. However, nearly all of the open space lands east of Seaside are in a Very High Fire Hazard Severity Zone, making avoidance difficult. Regardless, inconsistency with this policy would not result in physical changes to the environment. In the event of a wildfire, the Trail and greenway could burn, but this would have no physical impact on environmental resources.

Because general plans often contain numerous policies emphasizing differing legislative goals, a development project may be consistent with a general plan, taken as a whole, even though the project appears to be inconsistent or arguably inconsistent with some of its policies. Based on a review of the goals and policies of the applicable general plans, FORTAG is in harmony with the overall intent of these goals and policies. As noted above, it is within the cities and county purview to decide if FORTAG is consistent or inconsistent with any applicable general plan goals or policies.

FORTAG would also be consistent with other applicable plans and programs. For example, the 2040 MTP/SCS encourages active transportation modes, such as walking and bicycling, in order to reduce vehicle miles traveled and associated greenhouse gas emissions. FORTAG encourages active transportation modes by providing a trail that will connect the cities in the region. The Trail would provide access to schools, residential neighborhoods, CSUMB campus, and jobs centers in the region, encouraging a shift from vehicle to active transportation mode for daily commutes. The shift in commute mode would reduce VMT and associated greenhouse gas emissions. These features of the Trail directly implement many of the policies analyzed in this impact.

With implementation of the mitigation measures provided throughout this EIR, FORTAG would not conflict with land use plans, policies, and programs that result in significant environmental impacts. This is considered a less than significant impact with implementation of mitigation identified in this EIR.

Mitigation Measures

No mitigation measures are required beyond those identified in other sections of this EIR.

Significance After Mitigation

Impacts would be less than significant with mitigation.

4.11.5 Cumulative Impact Analysis

The cumulative impacts assessment for land use and planning evaluates the potential for cumulative projects to conflict with land use plans and policies in such a way that the environmental impact of these conflicts when combined with impacts of FORTAG would be significant. The cumulative impacts assessment area consists of the cities of Marina, Seaside, Monterey, and Del Rey Oaks, as well as surrounding unincorporated Monterey County. This is an appropriate geographic scope for

the cumulative analysis because FORTAG occurs entirely within these jurisdictions and therefore cannot possibly conflict with land use plans and policies of jurisdictions outside of this area.

The cumulative analysis of land use and planning impacts uses the projects list approach, as described in **Section 3, *Environmental Setting***. The list approach is appropriate because listed projects would potentially conflict with the same policies as FORTAG, and these inconsistencies should be evaluated together to determine if the cumulative impact would be significant. All of the projects listed in **Table 3-1** are within the cumulative impacts assessment area with the exception of the projects in Sand City. Sand City is not within the cumulative impacts assessment area, and FORTAG would not traverse areas within Sand City. Therefore, land use plans and policies that Sand City has adopted for the purpose of mitigating or avoiding environmental impacts are not applicable to FORTAG, and FORTAG would not conflict with them. Thus, FORTAG would have no cumulative contribution to impacts resulting from inconsistencies with Sand City land use plans and policies.

The cumulative projects would not physically divide established neighborhoods and communities because they are not linear infrastructure projects, such as new freeways which present barriers to crossing or buried gas pipeline, which are often fenced and prohibit movement. Past development in the region, such as construction of SR 1, have created linear barriers in locations that divide the coastal zone from more developed areas of the cities in the region. However, generally, established neighborhoods and communities in the cumulative impact assessment area are not divided, and cumulative projects would have a less than significant impact. FORTAG would not physically divide established neighborhoods or communities. FORTAG would provide a pedestrian and bicycle trail that connects neighborhoods and communities in the assessment area. Other cumulative projects, such as the Del Rey Oaks RV Resort in Del Rey Oaks and Seaside East in Seaside, would locate residences within proximity to FORTAG Trail segments. However, rather than dividing these residences from other neighborhoods in the assessment area, the Trail would provide a connection for mobility between them. Because FORTAG would not divide established neighborhoods or communities and would connect cumulative projects with established neighborhoods or communities, it would not cumulatively contribute to impacts associated with dividing communities.

The cumulative projects would be subject to environmental review, and pursuant to CEQA, identified potentially significant impacts would be mitigated to the extent possible. This would reduce the potential for conflicts with land use plans and programs such that significant environmental impacts would be avoided or minimized, and the cumulative impact would be less than significant. It is possible that some projects, such as Seaside East in Seaside for example, would impact some of the same resources as FORTAG, including natural vegetation communities and wildlife habitat. These impacts would potentially conflict with policies in the Seaside General Plan that intend for the avoidance of natural vegetation communities and sensitive habitats. However, as described in **Section 4.4, *Biological Resources***, impacts of FORTAG would not be cumulatively considerable with implementation of identified mitigation measures, such as **Mitigation Measures BIO-4(a) and BIO-4(b)**. Nearly all of the cumulative projects would require ground disturbance that could result in soil erosion or disturbance of cultural resources, potentially conflicting with policies to protect water quality and archaeological resources. Regulatory requirements, such as implementation of a SWPPP to prevent erosion and adverse water quality impacts, would reduce impacts of these projects and avoid potential conflicts with policies. As outlined in **Table 4.11-3** through **Table 4.11-9**, mitigation measures identified in this EIR would be implemented, which would reduce impacts of FORTAG such that it would be potentially consistent with applicable land use plans, programs, and policies adopted to reduce or mitigate environmental impacts. Therefore, impacts of FORTAG would not be cumulatively considerable.

4.12 Noise

This section describes the existing noise conditions and the regulatory framework applicable to noise, and identifies potential noise impacts resulting from project construction and operation.

4.12.1 Existing Conditions

a. Overview of Noise

Sound is described technically in terms of the loudness (amplitude) of the level and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Decibels are based on the logarithmic scale. In terms of human response to noise, a sound 10 dBA higher than another is judged to be twice as loud; a sound 20 dBA higher is four times as loud, and so forth. Everyday sounds normally range from 30 dB (very quiet) to 100 dB (very loud). In general, a 3 dB change in noise levels is noticeable, while 1-2 dB changes are generally not perceived. A 5 dBA increase is readily noticeable, while a difference of 10 dBA would be perceived as a doubling of loudness. Noise levels typically attenuate at a rate of 6 dBA per doubling of distance from point sources such as industrial machinery. Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013a).

In addition to the actual instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period are more likely to be an annoyance or cause direct physical damage or environmental stress. Several rating scales have been developed to account for the known effects of noise on people. Based on these effects, the observation has been made that the potential for noise to impact people depends on the total acoustical energy content of the noise. A number of noise scales have been developed to account for this factor. These scales include the Equivalent Noise Level (Leq), the Day Night Noise Level (Ldn), and the Community Noise Equivalent Level (CNEL).

Leq is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. Leq is the “energy” average noise level during the time period of the sample. Leq can be measured for any time period, but is typically measured for 15 minutes, 1 hour, or 24 hours.

Ldn is a 24-hour, time-weighted average noise level. Time-weighted refers to the fact that noise, which occurs during certain sensitive time periods, is penalized for occurring at these times. In the Ldn scale, those events that take place during the night (10 p.m. to 7 a.m.) are penalized by 10 dBA. This penalty was selected to attempt to account for increased human sensitivity to noise during the quieter period of day, where sleep is the most probable activity.

CNEL is similar to the Ldn scale except that it includes an additional 5 dBA penalty for events that occur during the evening (7 p.m. to 10 p.m.) time period. Thus, both the Ldn and CNEL noise measurements represent a 24-hour average of A-weighted noise levels with Ldn providing a nighttime adjustment and CNEL providing both an evening and nighttime adjustment.

b. Overview of Vibration

Vibration is defined as dynamic excitation of an elastic system, such as the ground or a structure, that results in oscillatory movement of the system (Caltrans 2013b). Typical manmade causes of earth borne vibration include trains and construction activities such as blasting, pile-driving, and operation of heavy earth-moving equipment (Federal Transit Administration [FTA] 2018). The resulting waves transmitted through solid material are referred to as structure-borne or groundborne vibration. Vibration energy spreads out as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. Because the effects of vibration elicit a greater response than the vibration itself, vibration is typically only perceptible to people inside buildings (FTA 2018).

Vibration levels are typically expressed in terms of the peak particle velocity (PPV) and root mean square (rms) amplitude, both in inches per second (in/sec). PPV is most appropriate for evaluating building damage potential. Caltrans estimates that continuous vibration levels of less than 0.08 PPV and single-event vibration levels of less than 0.12 PPV do not result in damage to even the most fragile historic buildings (Caltrans 2013b). PPV but does not account for human response to vibration. The rms amplitude is used to represent average vibration amplitude, which accounts for the time it takes for the human body to respond to vibration signals. The rms amplitude is also given in decibel notation, referenced as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration relative to human response (FTA 2018). The general human response to different levels of groundborne vibration velocity levels is described in **Table 4.12-1**.

The rumbling sound caused by the vibration of room surfaces is called groundborne noise. Groundborne noise is often perceived as louder than community noise sources (broadband noise) at the same noise level. This is accounted for by setting the limits for groundborne noise lower than those set for broadband noise. The relationship between groundborne vibration and groundborne noise depends on the frequency content of the vibration and the acoustical absorption of the receiving room. If the vibration spectrum peaks at 30 Hz, the A-weighted sound level will be approximately 40 dBA lower than the velocity level. Correspondingly, if the vibration spectrum peaks at 60 Hz, the A-weighted sound level will be about 25 dBA lower than the velocity level (FTA 2018). The same human reaction corresponds to a given vibration velocity level and its resulting noise level; therefore, for simplicity, this analysis refers only to a source’s vibration velocity level (VdB) to describe potential human response to groundborne vibration and noise.

Table 4.12-1 Human Response to Groundborne Vibration

Vibration Velocity Level	Noise Level ^a	Human Reaction
65 VdB	40 dBA	Approximate threshold of perception for many people. Mid-frequency sound may disturb sleep.
75 VdB	50 dBA	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is annoying. Mid-frequency noise disturbs sleep and considered annoying in more quiet areas.
85 VdB	60 dBA	Vibration acceptable only if there are an infrequent number of events per day. Low frequency noise disturbs sleep and mid-frequency noise can be annoying to daytime noise sensitive land uses such as schools.

^aApproximate noise level when vibration spectrum peak is near 60 Hz.

Source: FTA 2018

c. Sensitive Receptors

Noise level allowances for various types of land uses reflect the varying noise sensitivities associated with those uses. In general, noise-sensitive land uses (called “sensitive receptors”) are any residence, hospital, school, hotel, library, office, or similar facility where quiet is an important attribute of the environment. Such uses have more stringent noise level allowances than most commercial or agricultural uses that are not subject to impacts such as sleep disturbance.

Passive parks are generally considered noise-sensitive because they typically involve activities that would be sensitive to noise, such as reading or conversation. On the other hand, parks used for active recreation purposes, such as trails or public beaches, are generally not considered noise-sensitive as they usually involve sport activities or other active recreational pursuits.

The project extends through or adjacent to multiple land uses containing sensitive receptors within the County of Monterey, the Cities of Marina, Seaside, Monterey, and Del Rey Oaks, and California State University, Monterey Bay (CSUMB). Sensitive receptors located along the project corridor are summarized below by segment.

- **Northern Marina.** Residences and Lone Olson Elementary school are located adjacent to the proposed Trail alignment along Beach Road, Estrella Del Mar Way, and Quebrada Del Mar Road. The Marina Library is located on Seaside Circle, which is approximately 0.2 mile south of the proposed Trail along Beach Road. Holiday Inn Express & Suites is located approximately 0.3 mile southwest of the proposed Trail on Beach Road.
- **Northern Loop.** Residences are located near the Trail alignment along Inter-Garrison Road.
- **CSUMB Loop North.** Residences are located near the eastern portion of the proposed Trail alignment near Inter-Garrison Road, adjacent to California Avenue and adjacent to 8th Street. Residence Halls are located adjacent to the Trail alignment in the northeast portion of CSUMB.
- **CSUMB Loop South.** Campus residence halls are located across Divarty Street from the Trail alignment. Additionally, several academic and classroom buildings are located adjacent to the proposed Trail alignment.
- **National Monument Loop.** Residences are located within approximately 250 feet of the Trail alignment crossing at Normandy Road. Residences are located west of the proposed Trail alignment but are separated from the Trail by General Jim Moore Boulevard.
- **Canyon Del Rey/SR 218.** Residences are located within approximately 250 feet of the Trail alignment along Canyon Del Rey Boulevard and adjacent to the Trail alignment along Angelus Way. A hotel is located at the Trail terminus at Del Monte Boulevard. Seaside Branch Library is located approximately 0.12 mile east of the proposed alignment.
- **Ryan Ranch.** This segment area is currently undeveloped, and there are no existing sensitive receptors along this segment of the proposed Trail alignment. The nearest sensitive receptors are residences located south of General Jim Moore Boulevard, approximately 0.6 mile west of this segment.

d. Existing Noise Level

The existing noise environment for the Monterey Bay area is summarized in the Final EIR for the 2040 Metropolitan Transportation Plan/Sustainable Communities Strategy (2040 MTP/SCS) and Regional Transportation Plans for Monterey, San Benito and Santa Cruz Counties (AMBAG 2018). Traffic noise is the dominant noise source in the study area. Railroads and airports are also

considerable sources of noise in the region. These noise sources in the study area are summarized below.

Motor Vehicle Traffic

Motor vehicles, including cars/light trucks, buses, and various types of trucks, are the most substantial source of noise in most of the AMBAG region, including within the project corridor. Within Monterey County, in the study area, State Route (SR) 1 has the largest vehicle volumes and the highest noise levels. In 2015, daily traffic volumes on SR 1 ranged from 13,178 vehicles, south of Watsonville at the County line during off-peak months, to 83,272 vehicles between Del Monte Avenue/Fremont Boulevard and Lightfighter Drive. Levels of highway noise typically range from 70 to 80 dBA at a distance of 50 feet from the highway. Additionally, there are many arterial roadways within the project corridor, including General Jim Moore Boulevard and Canyon Del Rey Boulevard. Given that the typical daily traffic volumes range from 10,000 to 40,000 vehicle trips, noise levels along arterial roadways typically range from Ldn 65 to 70 dBA at a distance of 50 feet from the roadway centerlines (AMBAG 2018).

Railroad Operations

An existing railroad line generally parallels SR 1 in the study area and provides AMTRAK service (Monterey County 2018). The AMTRAK station is located in Salinas and the route operates one train in each direction daily.

Railroad operations generate high, relatively brief, intermittent noise events. These noise events are an environmental concern for sensitive land uses located along rail lines. Locomotive engines and the interaction of steel wheels and rails are examples of the primary sources of rail noise. Air horns and crossing bell gates are another primary source of rail noise. Rail operations generate varying noise levels depending on the type of rail activity (AMBAG 2018). According to the Federal Transit Administration (FTA), six commuter trains traveling at 50 miles per hour with a horn blowing generate a noise level of 81 dBA Leq at 50 feet. This same activity without a horn generates a noise level of 68 dBA Leq at 50 feet (FTA 2018).

Airport Operations

The Northern Marina and Northern Loop segments of the proposed project are located adjacent to the Marina Municipal Airport. Additionally, the Monterey Municipal Airport is located approximately 0.2 mile south of the Canyon Del Rey/SR 218 segment. Flight takeoffs and landings are the primary source of noise from airport operations. Portions of the Northern Marina segment are located within the 60 dBA CNEL and 55 dBA CNEL noise contours for operations at Marina Municipal Airport. The proposed alignment is not within the 65 dBA CNEL noise contour for operations at Monterey Municipal Airport (Monterey County 2004).

4.12.2 Regulatory Setting

Federal

Federal Transit Administration Vibration Guidelines

Although the FTA standards are intended for federally funded mass transit projects, the impact assessment procedures and criteria included in the Transit Noise and Vibration Impact Assessment Manual (FTA 2006) are routinely used for projects proposed by local jurisdictions. The manual

includes reference noise and vibration levels for assessing the impacts of noise and groundborne vibration from construction.

State

As required by Section 65302 of the Government Code of California, desirable noise levels are stated in the Noise Element of General Plans prepared by counties and cities. Division 28 of the California Health and Safety Code requires that the State Office of Noise Control in the Department of Health Services develop model elements and model noise ordinances to guide local jurisdictions in developing noise standards. The objective of noise standards is to provide the community with a means of judging the noise environment that it deems to be generally acceptable.

The State has also adopted guidelines for land use compatibility and community noise environment in the State of California General Plan Guidelines, published by the State Governor's Office of Planning and Research (OPR 2017). Noise levels up to 60 dBA CNEL are considered normally acceptable for low-density residential land use, and noise levels up to 70 dBA CNEL are conditionally acceptable with incorporation of noise insulation features. Noise levels up to 70 dBA CNEL are normally acceptable for schools and commercial land use.

Airport noise standards are established within California Code of Regulations, Title 21, Section 5000 et seq, and regulate aircraft operations at all airports operating under a valid permit issued by the Department of Transportation. The noise standards state that the acceptable level of aircraft noise for persons living in the vicinity of airports is 65 dB Community Noise Equivalent Level (CNEL).

Local

The project corridor extends through the following local jurisdictions, as shown in **Figure 2-5 in Section 2, Project Description**. The relevant general plan policies and municipal codes related to noise are described below.

Monterey County

GENERAL PLAN

The Safety Element of the County's General Plan identifies sources of noise and provides policies addressing existing and foreseeable noise problems (County of Monterey 2010). It includes Goal S-7 to maintain a healthy and quiet environment free from annoying and harmful sounds. Policies S-7.1 through S-7.7 outline noise compatibility standards for new noise sensitive land uses and require new development to incorporate design elements to minimize noise impacts on surrounding uses. Acoustical analysis is required when a project may result in noise compatibility impacts.

Goal S-7.8 relates to potential vibration impacts. All discretionary projects that propose to use heavy construction equipment that has the potential to create vibrations that could cause structural damage to adjacent structures within 100 feet shall be required to submit a pre-construction vibration study prior to the approval of a building permit. Pile driving or blasting are illustrative of the type of equipment that could be subject to this policy.

Goals S-7.9 and S-7.10 limit construction activities within 500 feet of sensitive receptors to daytime hours, and outline standard noise protection measures for construction.

MONTEREY COUNTY CODE

Chapter 10.60 (Noise) of the Monterey County Code establishes noise regulations in Monterey County. Section 10.60.030 of the County's Municipal Code states that operation of equipment with the potential to produce noise exceeding 85 dBA, measured 50 feet from the equipment, during any time of the day is prohibited within 2,500 feet from any occupied dwelling unit. Section 10.60.040 of the County Code states that "loud and unreasonable" nighttime noise that exceeds a maximum noise level 65 dBA, or average noise level of 45 Leq dBA, shall not be allowed between the hours of 10:00 p.m. to 7:00 a.m.

City of Marina

GENERAL PLAN

Policies 4.106 through 4.111 of the Community Land Use Element of the Marina General Plan include noise related goals and policies (City of Marina 2010). Policies include establishing land use compatibility guidelines and requirements for the incorporation of measures to reduce interior and exterior noise levels to meet compatibility standards.

MUNICIPAL CODE

Chapter 9.24 (Noise) of the Marina Municipal Code establishes noise regulations in the City of Marina. Section 9.24.40 prohibits excessive, unnecessary, or unusually loud noise due to construction, demolition, excavation, erection, alteration, or repair activity that disturbs the peace, comfort, and tranquility of the occupants of residential property unless it is due to an emergency or it is properly authorized by the Marina Department of Public Safety or the Public Works Department.

City of Seaside

GENERAL PLAN

The Noise Element of the Seaside General Plan establishes noise compatibility standards and requires development to be made compatible with the standards (City of Seaside 2004). Policies to reduce transportation and stationary noise sources are also included, including enforcement of standards and limiting hours of operation of noise sources in sensitive areas.

Seaside is in the process of updating its General Plan. The draft Noise Element of the Seaside 2040 General Plan also establishes land use compatibility standards, including separate non-transportation noise standards for land uses in the former Fort Ord Planning Area. Goals and policies require consistency with compatibility guidelines and seek to minimize transportation-related noise, including aircraft and vehicles.

MUNICIPAL CODE

Chapter 9.12 (Noise) of the Seaside Municipal Code establishes noise regulations in the City of Seaside. Section 9.12.030 of the City's Municipal Code states that the production of "excessive, unnecessary or unusually loud" noise, which includes, but is not limited to, road graders, pile driving equipment, and other heavy equipment, is prohibited between 7:00 p.m. and 7:00 a.m. daily, except on Saturday, Sunday, and holidays when noise is prohibited between 7:00 p.m. and 9:00 a.m. Written authorization for construction to occur outside of these hours may be issued in the case of an emergency or where the building official determines that the peace, comfort, and tranquility of

the occupants of residential property will not be impaired because of the location or nature of the construction activity. Excessive, unnecessary, or unusually loud yelling, shouting, talking, whistling, or singing out of doors is also prohibited between the hours of 10:00 p.m. and 7:00 a.m. on any day.

City of Monterey

GENERAL PLAN

The Noise Element of the City of Monterey General Plan includes goals and policies to reduce transportation noise exposure, including vehicles and aircraft (City of Monterey 2016). The element includes noise exposure standards for neighborhoods, including requirements for acoustical studies and sound installation features based on potential exposure.

MUNICIPAL CODE

Section 38-111 of the City of Monterey Municipal Code establishes noise performance standards by zoning district and sets a vibration standard. For Open Space districts, Public and Semi-Public district, and Residential districts, the performance standard is 60 dBA. The performance standard is 65 dBA in commercial districts. The noise standard in residential districts is 55 dBA between 10:00 p.m. and 7:00 a.m. Regarding vibration, no use, activity, or process shall produce vibrations that are perceptible without instruments by a reasonable person at the property lines of a site. Additionally, Section 38-112 limits construction hours to between 7:00 a.m. to 7:00 p.m. Monday through Friday, 8:00 a.m. to 6:00 p.m. Saturday, and 10:00 a.m. to 5:00 p.m. Sunday.

City of Del Rey Oaks

GENERAL PLAN

The Noise Element of the General Plan contains policies and programs to protect residences from exposure to excessive noise (City of Del Rey Oaks 1997). Policies include encouraging limits on aircraft operation, establishment of noise compatibility standards, enforcement of noise standards, and requirements for acoustical analysis.

MUNICIPAL CODE

Chapter 8.20.010 (Noise) of the Del Rey Oaks Municipal Code establishes noise regulations in the City of Del Rey Oaks. Operation of unnecessarily loud equipment, including, but not limited to, hammers, chainsaws, and drills is restricted before 7:00 a.m. or after 7:00 p.m. daily. Additionally, excessive, unnecessary, or unusually loud yelling, shouting, talking, whistling or singing out of doors between the hours of 10:00 p.m. and 7:00 a.m. on any day is considered a nuisance. However, activities on publicly owned property and facilities are exempt.

Fort Ord Reuse Authority

The Fort Ord Reuse Plan includes a Noise Element. The element encourages coordination with area jurisdiction to establish consistent noise compatibility standards for controlling noise in the Fort Ord Planning area. The element outlines noise compatibility standards consistent with the County of Monterey and requires consistency with the standards. The Element also requires construction contractors to employ noise-reducing construction practices (FORA 1997).

4.12.3 Methodology and Significance Thresholds

Methodology

This section describes the potential environmental impacts of the proposed FORTAG project and all FORTAG design options relevant to noise impacts. The analysis of noise impacts considers the effects of both temporary construction-related noise and long-term noise associated with operation of the proposed Trail. For construction noise and vibration, short-term noise and vibration levels are estimated using the reference noise and vibration levels provided in the FTA's Transit Noise and Vibration Impact Assessment Manual (FTA 2018).

The County of Monterey is the only jurisdiction in the study corridor that establishes a numeric performance standard for construction noise. Section 10.60.030 of the Municipal Code establishes a noise level standard of 85 dBA at 50 feet for operation of individual pieces of equipment within 2,500 feet of a residence. This standard is intended to protect residences from unwanted noise from construction activities, and it can be assumed that residents in the other corridor jurisdictions would react similarly to construction noise. Therefore, the County of Monterey construction performance standard is applied as a significance threshold in this analysis. A potential impact would also occur if construction would require use of equipment that would have the potential to exceed 85 dBA at 50 feet within 2,500 feet of a residence.

Noise ordinances related to ongoing operational noise also vary across the project corridor. Noise ordinances for the cities of Marina, Seaside, and Del Rey Oaks generally outline subjective limits for nuisance noise. However, the City of Monterey and County of Monterey have established performance standards for operational noise. The most conservative standard is 60 dBA for daytime noise sources in residential areas established by the City of Monterey. The performance standard is 65 dBA in commercial districts. The City's noise standard in residential districts is 55 dBA between 10:00 p.m. and 7:00 a.m. Therefore, operational noise levels that would exceed the performance standards established by the City of Monterey are considered a significant impact.

A significant impact related to vibration would occur if vibration would exceed the Caltrans threshold for strongly perceptible vibration from intermittent sources, such as construction equipment (Caltrans 2013b). Vibration would be considered significant if it would exceed 0.10 in/sec at a receptor. The impact criteria for hospital operating rooms outlined by Caltrans of 0.004 in/sec is applied to medical offices in the vicinity of the Trail alignment. Pursuant to Goal S-7.8 of the Monterey County General Plan Safety Element, operation of pile driving equipment within 100 feet of an existing structure would be considered a potential impact related to structural damage.

Significance Thresholds

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

1. Exposure of persons to or generation of 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. Exposure of persons to or 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 two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels

The numeric thresholds used for these conditions are described in the *Methodology* above.

4.12.4 Project Impact Analysis

Threshold 1: Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Impact N-1 CONSTRUCTION OF THE PROJECT WOULD POTENTIALLY EXPOSE PERSONS TO OR GENERATE EXCESSIVE NOISE LEVELS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

Construction

The operation of heavy equipment during construction of the proposed project would result in temporary increases in noise in the immediate project vicinity. **Table 4.12-2** provides maximum noise levels associated with heavy equipment that may be required for proposed project construction.

Table 4.12-2 Typical Construction Noise Levels

Equipment	Typical Maximum Noise Level (dBA) 50 Feet from Source
Pile Driver	101
Rock Drill	95
Backhoe	80
Dump Truck	84
Concrete Mixer	85
Grader	85
Dozer	85
Paver	85
Roller	85
Scraper	85
Compactor	82
Loader	80

Source: FTA 2018 for noise levels at 50 feet.

As described in **Section 2.6, Project Construction**, construction of the proposed project would occur in 2021. Additional construction could continue for several years, depending upon funding availability and participation of the underlying jurisdiction. A total project construction schedule has not been finalized and is subject to funding availability and other considerations. In general,

construction activities for the project would include excavation of material sources, clearing and grubbing, grading, placement of aggregate base and asphalt concrete, revegetation, installation of signs, and installation of lighting, and other safety related features necessary to meet current design practice. Large construction equipment would include trail dozers, skid steers, narrow track loaders, rollers, and vibrating plate compactors.

As shown in **Table 4.12-2**, maximum noise levels from required equipment would not exceed 85 dBA at 50 feet, with the exception of operation of pile driving or rock drilling equipment. Therefore, typical construction equipment would not exceed 85 dBA at 50 feet within 2,500 feet of a residences, and thus a significant impact would not occur for most Trail segments. Additionally, due to the linear nature of the project, individual receptors would only be exposed to intermittent construction noise on a given day, and for limited number of days during the construction period.

Use of a pile driver or rock drill may be required for the construction of overcrossings. Overcrossings would be located over Blanco Road in the Northern Loop segment and over Imjin Road in the CSUMB Loop North segment. This equipment would not be used during any other construction activities. Therefore, impacts related to pile driving or drilling would not occur during construction of the Northern Marina, CSUMB Loop South, National Monument Loop, Canyon Del Rey/SR 218, or Ryan Ranch segments.

The nearest potentially occupied residential units are located approximately 500 feet east of the proposed overcrossing of Blanco Road and approximately 855 feet south of the overcrossing of Imjin Road. At 500 feet and 855 feet from the construction area, noise levels from pile driving would be 81 dBA and 76 dBA, respectively. Noise levels from a rock drill would be 75 dBA and 70 dBA, respectively. However, because maximum noise levels at 50 feet during pile driving (101 dBA) or drilling (95 dBA) would have the potential to exceed 85 dBA, and residences would be located within 2,500 feet of equipment operation, a potentially significant impact would occur.

In summary, pile driving or drilling would result in a potentially significant impact. **Mitigation Measure N-1** would require the implementation of best management practices to minimize noise exposure at 50 feet to 85 dBA or below. Therefore, this impact would be less than significant with mitigation.

Mitigation Measures

N-1 Implement Noise-Reducing Measures for Pile Driving or Drilling Activities

Pile driving or drilling activities shall not be permitted at night. During all pile driving or drilling activities, which are a possibility for construction of overcrossings in the Northern Loop and CSUMB Loop North segments, the construction contractor shall employ a combination of the following noise-reducing measures to the extent necessary to reduce noise levels to 85 dBA or below at 50 feet from the project site. Noise monitoring shall occur once daily during normal pile driving or drilling activities to confirm that the standard has been met. If the noise level exceeds 85 dBA, the monitor shall notify the construction contractor, who shall cease pile driving or drilling until additional measures are implemented to reduce noise levels to 85 dBA, with subsequent monitoring.

- (1) Equipment with the potential to exceed 85 dBA at 50 feet shall be located as far from nearby noise-sensitive receptors as possible.
- (2) Any construction equipment that would be required during pile driving or drilling activity shall be properly maintained and have manufacturer-approved or recommended sound abatement

means on air intakes, combustion exhausts, heat dissipation vents, and the interior surfaces of engine hoods and power train enclosures.

- (3) If feasible and determined to be an effective option, install temporary noise barriers around the perimeter of pile driving or drilling equipment operation to minimize construction noise.

In addition to these noise-reducing measures, the construction contractor shall provide written notification to residences within 700 feet of pile driving or drilling activities at least three weeks prior to all pile driving or drilling activities. The notification shall inform residents of the estimated start date, times and duration of pile driving or drilling activities.

Significance After Mitigation

This impact would be less than significant with mitigation.

Impact N-2 OPERATION OF THE PROJECT WOULD NOT EXPOSE PERSONS TO OR GENERATE EXCESSIVE NOISE LEVELS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Operation of the proposed project would not be anticipated to generate more than a nominal increase in vehicle trips to and from the Trail. Ultimately, any increase in trips would be offset by a transition to bicycle commuting. The Trail is anticipated to serve existing residents and would not include any new parking lots or other amenities or facilities to accommodate new vehicle trips. Maintenance of the Trail would be incorporated into existing underlying jurisdiction maintenance schedules for existing facilities, and vehicle trips would be minimal and intermittent. Therefore, operation of the proposed project would not result in a permanent increase in ambient vehicle noise levels.

Additionally, operational noise levels along the proposed Trail alignment would be influenced by the sound of trail users talking, occasional animal sounds, as well as occasional maintenance of proposed project features. In areas where the proposed alignment overlaps with existing recreational facilities, such as the side trails for equestrian use that connect existing equestrian paths, noise levels would be the same as existing conditions. In areas where the Trail would provide a new recreational facility, the new noise sources would be intermittent and typically limited to normal conversation. Normal conversation typically results in a noise level of 65 dBA L_{eq} at three feet (Caltrans 2013a) and attenuate to below 50 dBA L_{eq} at 15 feet. As such, intermittent noise at conversational levels would not exceed the performance standard of 60 dBA at nearby receptors. Additionally, the portions of the Trail that would be adjacent to existing sensitive receptors are also located in developed areas currently subject to ambient vehicle noise that would continue to dominate the noise environment.

Regular maintenance activities may include occasional repairs, litter removal, and debris (e.g., dirt or sand) removal that would potentially involve the use of power equipment. It is currently unknown what type of equipment would be required for occasional repairs. A leaf blower, or similar equipment, is anticipated to be used to clear debris from the Trail, such as sand, dirt, and leaves. Therefore, a typical leaf blower is assumed to represent conditions from operation of equipment for routine maintenance. Newer leaf blowers typically generate noise levels of 65 dBA or below at 50 feet from the equipment. However, older leaf blowers generate an average noise level of 78 dBA at 50 feet (Long Beach 2017). This noise level is similar to smaller pieces of construction equipment (described above) and is assumed to be a worst-case noise level for maintenance and operation activities. As such, noise from maintenance equipment would be audible at nearby receptors. However, maintenance would be occasional, limited in duration, and would be similar to existing noise levels generated by landscape equipment utilized to maintain residential and commercial

properties. Thus, maintenance of the Trail would not be expected to generate a noticeable increase in ambient noise levels compared to existing conditions.

Operational impacts of the proposed project would be less than significant because the project would not generate noise levels that would be substantially different than existing conditions.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

This impact would be less than significant without mitigation.

Threshold 2: Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Impact N-3 THE PROJECT WOULD NOT EXPOSE PERSONS TO OR GENERATE EXCESSIVE GROUNDBORNE VIBRATION OR GROUNDBORNE NOISE LEVELS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Groundborne vibration and noise would be limited to the construction phase of the project. Typical vibration levels for available construction equipment required for the proposed project are provided in **Table 4.12-3**. Use of a pile driver or drilling may be required for the construction of overcrossings but would not be used during any other construction activities.

Per Caltrans guidance, vibration levels of 0.10 in/sec PPV would be strongly perceptible to receptors and would be considered a potentially significant to residences. The nearest vibration-sensitive land uses (uses requiring operation of equipment potentially disrupted by vibration) are a medical facility located approximately 750 feet south of the Ryan Ranch segment and medical offices located approximately 0.2 mile south of the Northern Marina segment. The impact criteria for hospital operating rooms outlined by Caltrans is 0.004 in/sec. This threshold is applied to the medical offices.

As shown in **Table 4.12-3**, vibration levels from construction activities other than pile driving would naturally reduce to below 0.10 in/sec more than 40 feet from the construction area. Due to the intermittent exposure as a result of the linear nature of the project, setbacks provided by yards, and separation from equipment to the public for safety, it is not anticipated that individual receptors would be located within 40 feet of construction equipment, even in residential areas adjacent to the Trail alignment, such as along Angelus Way. Additionally, normal construction activities would naturally reduce to below 0.004 in/sec beyond 355 feet of construction. There are no vibration-sensitive land uses within 355 feet of the proposed Trail alignment. Therefore, vibration from normal construction activities would be less than significant.

Vibration from pile driving, if required, would naturally reduce to below 0.10 in/sec at approximately 85 feet from operations, and to below 0.004 in/sec at approximately 750 feet from operations. The nearest receptors to potential pile driving operations are the structures located approximately 500 feet east of the proposed overcrossing of Blanco Road in the Northern Loop segment, and dormitories on the CSUMB campus, approximately 855 feet south of the proposed overcrossing and of Imjin Road in the CSUMB Loop North segment. The nearest vibration-sensitive use to any proposed segment is located approximately 750 feet from the Ryan Ranch segment. Pile driving would not be required on this segment. Therefore, there are no existing receptors within the screening distances for impact from pile driving activities. Vibration from pile driving activities would be less than significant.

In accordance with the County of Monterey General Plan, pile driving within 100 feet of a structure should be considered a potential risk related to structure damage. As described above, there are no existing structures within 100 feet of the proposed overcrossings that may require pile driving. Impacts related to structural damage would be less than significant.

In summary, groundborne vibration that would result from operation of equipment during construction of the proposed project would not exceed the Caltrans criteria for strongly perceptible vibration exposure, or disruption to medical service. Pile-driving activities would not occur within the screening distance for potential structural damage. Impacts would be less than significant.

Table 4.12-3 Vibration Source Levels for Construction Equipment

Construction Equipment	Approximate PPV (in/sec) at 25 feet	Approximate PPV (in/sec) VdB at 40 feet	Approximate PPV (in/sec) VdB at 85 feet ^a	Approximate PPV (in/sec) VdB at 355 feet ^a	Approximate PPV (in/sec) VdB at 750 feet ^a
Large Bulldozer	0.089	0.04	0.01	0.002	<0.001
Loaded Trucks	0.076	0.04	0.01	0.001	<0.001
Small Bulldozer	0.003	0.001	<0.001	<0.001	<0.001
Vibratory Roller	0.21	0.10	0.03	0.004	0.001
Caisson Drilling	0.089	0.04	0.01	0.002	<0.001
Impact Pile Driver	0.644	0.32	0.10	0.01	0.004

^a Based on the formula $VdB = VdB(25 \text{ feet}) - 30\log(d/25)$ provided by the FTA (2018)

Source: FTA 2018

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

This impact would be less than significant without mitigation.

Threshold 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 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?

Impact N-4 THE PROJECT WOULD NOT EXPOSE PEOPLE RESIDING OR WORKING IN THE PROJECT AREA TO EXCESSIVE NOISE LEVELS FROM AIRCRAFT. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The Northern Marina and Northern Loop segment of the proposed project are located adjacent to the Marina Municipal Airport. Additionally, Monterey Municipal Airport is located approximately 0.2 mile south of the Canyon Del Rey/SR 218 segment. The proposed alignment is not within the 65 dBA CNEL noise contour for operations at Monterey Municipal Airport. Portions of the Northern Marina segment are located within the 60 dBA CNEL and 55 dBA CNEL noise contours for operations at Marina Municipal Airport; however, the project does not propose any structures for human occupancy. Active transportation uses are not considered noise sensitive and exposure to aircraft noise during Trail use would be occasional and intermittent. The project does not include any

components that would change air traffic patterns that would result in new exposure to aircraft noise. This impact would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

This impact would be less than significant without mitigation.

4.12.5 Cumulative Impact Analysis

The geographic extent for the analysis of cumulative construction noise, stationary noise, and vibration impacts is generally limited to areas within 0.5 mile of the project corridor. This is consistent with the Monterey County noise ordinance, which considers 2,500 feet (0.47 mile) the screening distance for potential construction noise impacts (Section 10.60.030 of the County Municipal Code). Beyond this distance, impulse noise may be briefly audible, and steady noise from construction activity or project operations would generally dissipate such that the level of noise would reduce to below applicable noise standards and/or blend in with the background noise level. Similarly, vibration is a localized phenomenon that reduces progressively as the distance from the source increases. As such, this geographic extent is appropriate for construction noise, operational noise, and vibration.

Pile driving or rock drilling would have the potential to generate significant construction noise during Trail construction, and would be limited to the proposed overcrossings at Blanco Road in the Northern Loop segment, and at Imjin Road in the CSUMB Loop North segment. It cannot be determined what segments of the project alignment and what cumulative projects would be under construction simultaneously. Due to the limited potential impact area (0.5 mile), it is unlikely that pile driving or drilling equipment required for the proposed overcrossing would be operating in close enough proximity to simultaneous cumulative construction to generate cumulative noise impacts. Additionally, **Mitigation Measure N-1** would require the implementing entity for applicable Trail segments to implement noise reduction best management practices to achieve noise ordinance compliance. Cumulative projects would be similarly required to comply with area noise ordinances. Thus, a cumulative impact would not occur and the project's contribution to a cumulative impact would not be cumulatively considerable.

Cumulative projects in the jurisdictions surrounding the project corridor, as listed in **Table 3-1 in Section 3, *Environmental Setting***, would introduce new stationary noise sources, such as HVAC equipment, that could potentially generate noise levels in excess of local standards. Additionally, cumulative projects would have the potential to increase vehicle trips and result in an increase in ambient noise levels. A potentially significant cumulative impact would occur. However, the proposed project is anticipated to result in a nominal increase in vehicle traffic and noise generated by Trail users would be minimal. Therefore, the proposed project's contribution to a cumulative impact would not be cumulatively considerable.

The timing of project construction phasing is unknown. Therefore, it cannot be determined what segments of the project alignment and what cumulative projects would be under construction simultaneously. However, as shown in **Table 4.12-3**, maximum vibration levels generated by project construction would not be significant, even to vibration-sensitive uses, more than 750 feet from construction activity. These vibration levels would be limited to pile driving operation during

construction of the two proposed overcrossings. Vibration levels from activities other than pile driving would be reduced to less than the Caltrans threshold for vibration-sensitive uses more than 355 feet from construction. Vibration would cease after construction is completed in a given area. Similar equipment would be required for the cumulative projects. Due to the limited potential impact area, it is unlikely that construction equipment required for the proposed project would be operating in close enough proximity to simultaneous cumulative construction to generate cumulative vibration impacts. Thus, a cumulative impact would not occur and the project's contribution to a cumulative impact would not be cumulatively considerable.

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4.13 Public Safety and Services

This section identifies and evaluates impacts related to public safety and services that may arise through implementation of the proposed FORTAG project. Public services analyzed in this section include emergency response, fire protection, police protection, parks and recreation, health care facilities, schools, and libraries.

4.13.1 Existing Conditions

a. Regional and Project Corridor Public Services

A wide range of state and local government entities provide extensive public services related to emergency response, fire and police protection, parks and recreation, health care facilities, schools, and libraries. An overview of the agencies and mechanisms for providing services is discussed below.

Emergency Response Services

In accordance with the California Emergency Services Act, the Monterey County Operational Area (operational area) is an intermediate level of the State's emergency management organization for all political subdivisions within the county, including special districts. The operational area facilitates and/or coordinates all information, resources, and decisions regarding priorities among local governments within the operational area. The operational area serves as the coordination and communication link between the local government level and the region level (Monterey County Office of Emergency Services 2019).

The Monterey County Emergency Medical Services (EMS) system regulates emergency response services throughout the operational area, and is comprised of multiple agencies and facilities all working together to provide timely emergency medical response and care to those experiencing a medical emergency. The system is comprised of dispatch centers, fire departments, ambulance providers (both ground and air), hospital emergency departments, specialty centers such as trauma, stroke and heart attack, and the EMS Agency (Monterey County 2019).

The Monterey County Emergency Communications Department is located in Salinas, and provides dispatch for all of the cities and the unincorporated areas within the County. The Department utilizes a computer aided dispatch system to receive and process 9-1-1 calls to coordinate the response of emergency equipment and personnel throughout the County, depending on the needs of the call. This includes answering all emergency and non-emergency calls for general services, and police, fire and medical assistance. The dispatchers handle, on average, 50,000 emergency and non-emergency calls on a monthly basis that result in responses to approximately 37,000 calls per year and the transport of approximately 25,000 people (Monterey County 2019a, Monterey County 2019b). Currently, the average answer time for a call is six seconds. As the County grows, the Department is committed to constantly monitoring and adjusting the services provided to the citizens and visitors of Monterey County to meet the ongoing changing needs of the public.

Additional information on emergency response services is provided in the following discussions for Fire Protection Services, Police Protection Services, and Health Care Facilities and Medical Transport.

Fire Protection Services

Fire protection in California is the responsibility of the federal, state, or local government, depending on the individual jurisdiction. The project corridor largely supports local service area (LSA) lands that are within unincorporated Monterey County, or within the cities of Marina, Seaside, Monterey, or Del Rey Oaks. The National Monument Loop segment is the only project segment located within a federal service area (FSA), also called a federal responsibility area.

The project segments that are located on LSA lands are served by the local City fire department and/or by Monterey County, as presented in **Table 4.13-1**. The National Monument Loop segment is located on the former Fort Ord and within a FSA. Although located on federal lands, this segment is serviced by the Monterey County Fire Department. As detailed in **Section 4.17, Wildfire**, portions of the project corridor have been mapped as Moderate, High, and Very High Wildfire Hazard Areas by CAL FIRE due to the presence of wildfire prone vegetation, steep and dry slopes, and the presence or proximity of structures vulnerable to wildland fires.

Table 4.13-1 Fire Protection Jurisdiction for the FORTAG Trail Alignments

Trail Segment	Jurisdiction Providing Fire Protection	Fire Department/Station
Northern Marina	Monterey County	East Garrison Station
Northern Loop	Monterey County	East Garrison Station
CSUMB Loop North	City of Marina/Monterey County	Marina Fire Department/East Garrison Station
CSUMB Loop South	City of Marina/Monterey County	Marina Fire Department/East Garrison Station
National Monument Loop	Monterey County	Toro Station (Station 1) and East Garrison Station
Canyon Del Rey/SR 218	City of Seaside	Seaside Fire Department
Ryan Ranch	City of Monterey	Monterey Unit, Station Number 13

Police Protection Services

Police protection throughout the Trail corridor is provided by a combination of federal, state, and local government as described below and summarized in **Table 4.13-2**. As shown in **Figure 2-5 in Section 2, Project Description**, and presented in **Table 4.13-2**, the Trail alignment, as well as individual segments, extends through multiple jurisdictions.

Table 4.13-2 Police Protection Jurisdiction for the FORTAG Trail Alignments

Trail Segment	Primary Jurisdiction Providing Police Protection ¹
Northern Marina	City of Marina (incorporated) and Monterey County Sheriff (unincorporated)
Northern Loop	City of Marina (incorporated) and Monterey County Sheriff (unincorporated)
CSUMB Loop North	CSUMB UPD with Monterey County Sheriff
CSUMB Loop South	CSUMB UPD with Monterey County Sheriff
National Monument Loop	BLM Central Coast Field Office with Monterey County Sheriff
Canyon Del Rey/SR 218	City of Seaside
Ryan Ranch	City of Monterey

¹ There are mutual aid agreements between the state, county and local jurisdictions whereby the Monterey County Sheriff's Office and California Highway Patrol (CHP) assist local governments during emergencies when requested.

BLM = U.S. Bureau of Land Management

CSUMB = California State University, Monterey Bay

UPD = University Police Department

Bureau of Land Management

The National Monument Loop segment is located adjacent to the western boundary of the Fort Ord National Monument, which is under the jurisdiction of the Bureau of Land Management (BLM). The BLM Central Coast Field Office, located on 2nd Avenue in the City of Marina, has one ranger that covers the three counties of Monterey, Santa Cruz, and San Benito. The ranger routinely patrols areas operated by the BLM; in Monterey County this is limited largely to the trails and open space within the Fort Ord National Monument.

The BLM ranger covers an extensive area within Monterey County, in addition to BLM lands within both San Benito and Santa Cruz counties. Therefore, law enforcement provisions are coordinated between the BLM ranger and the local sheriff's department to determine the most efficient and effective mode of response time for each reported emergency.

California Highway Patrol

The California Highway Patrol (CHP) is responsible for patrolling state highways and county roadways, enforcing traffic regulations, responding to traffic accidents, and providing service and assistance to drivers in disabled vehicles. CHP maintains a mutual aid agreement with the Monterey County Sheriff's Office and assists local governments during emergencies when requested. The County is located in the CHP Coastal Division whose service area includes 325 miles along the central coast. The local area office that supports Monterey County (Office 730) is located on East Blanco Road in Salinas, approximately 10 miles east of the project corridor.

California State University, Monterey Bay

The CSUMB Loop North and CSUMB Loop South segments include lands that are located within the campus of California State University, Monterey Bay (CSUMB), under the jurisdiction of the University Police Department (UPD), with headquarters located in the Campus Center. Police officers provide law enforcement services for the CSUMB campus, including a mile buffer around the campus, that include criminal investigation, night walk security, fingerprinting, and lost and found services. The CSUMB UPD also has a mutual aid agreement with the Monterey County Sheriff's Department to provide support services between the two departments (CSUMB Police Department 2017).

Monterey County Sheriff

The Monterey County Sheriff's Office provides primary law enforcement services for the unincorporated portions of Monterey County, through which many of the trail segments are located, including the Northern Marina, Northern Loop, CSUMB Loop North, and CSUMB Loop South segments. There are three Sheriff's divisions within the county. The project corridor is located within the Central Patrol Area with headquarters located on Natividad Road in Salinas, approximately 10 miles east of the project corridor. The County also includes a search and rescue team, and a mounted search unit for rescue and recovery missions. Through mutual aid agreements, the search and rescue division also supports the neighboring San Benito and Santa Cruz counties.

City Police Departments

The project corridor extends through the cities of Marina, Seaside, Del Rey Oaks, and Monterey. The local police departments provide crime prevention services throughout each city. Local police stations within each city are located on:

- Hillcrest Avenue in Marina
- Harcourt Avenue in Seaside
- Canyon Del Rey Boulevard in Del Rey Oaks
- Madison Street in Monterey

All city police departments are supported by the Monterey County Sheriff's Department, as necessary, to provide additional services to the cities, through mutual aid agreements.

Parks

The project corridor is located within and adjacent to a number of existing parks facilities, described below.

Federal

The BLM Fort Ord National Monument is located on the former Fort Ord military base and is 14,000 acres in size (**Figure 2-5**). The Monument includes more than 80 miles of trails that support hiking, biking, equestrian use and wildlife watching, including 44 species of rare plants and animals. The lands are open from sunrise to dusk, and a number of picnic areas and amenities are located throughout the expansive trail system and open space.

The National Monument Loop segment extends along the western boundary of, but is not located within, lands designated as BLM Fort Ord National Monument.

State and Regional

Fort Ord Dunes State Park is located approximately 600 feet west of the CSUMB Loop North and South segments and along four miles of coast line on the west side of State Route (SR) 1. It was added to the State Park System in 1995, following the closure of Fort Ord, and was opened to the public for day use in 2009. A general plan for the park was adopted in 2004 and provides for the development of a new campground and beach access facilities. The Campground and Beach Access Project was approved by the California Coastal Commission in 2017, and construction was scheduled to begin in 2019.

The Monterey Bay Coastal Recreation Trail (Coastal Rec Trail) is located along 18 miles of the central coast of Monterey County, and extends from Castroville in the north through Fort Ord Dunes State Park to Pacific Grove in the south. This paved trail follows the same route as the old Southern Pacific Railway, and provides an access route for pedestrians and cyclists that is separated from local roadways and automobiles. The Coastal Rec Trail would connect to the proposed Northern Marina, CSUMB Loop North, CSUMB Loop South, and Canyon Del Rey/SR 218 segments providing a series of loops that with access throughout the local jurisdictions from the trail.

Local

There are a number of local parks and recreational facilities located along or adjacent to the project corridor, managed by the local cities and CSUMB, including those listed in **Table 4.13-3**.

Table 4.13-3 Local Parks and Recreation Facilities

Local Jurisdiction	Parks, Recreation Facilities, and Trails
City of Marina	<ul style="list-style-type: none"> ▪ Locke-Paddon Wetland Community Park ▪ Marina Equestrian Center Park ▪ Vince DiMaggio Park ▪ Windyhill Park ▪ Monterey Bay Coastal Recreation Trail ▪ Dune Boardwalk Trail ▪ Garrison Loop Trail ▪ Mudhen Lake and Rim Trail ▪ Jerry Smith Corridor Trail
City of Seaside	<ul style="list-style-type: none"> ▪ Laguna Grande Community Park and Trail ▪ Roberts Lake Park ▪ Monterey Bay Coastal Recreation Trail ▪ Fort Ord Public Lands Trail
City of Del Rey Oaks	<ul style="list-style-type: none"> ▪ Del Rey Park and unnamed trail ▪ Frog Pond Wetland Preserve and Trail ▪ Work Memorial Park ▪ Monterey Bay Coastal Recreation Trail
CSUMB Recreational Facilities ¹	<ul style="list-style-type: none"> ▪ Baseball and Softball Fields ▪ Freeman Football Stadium ▪ Otter Sports Center
City of Monterey	<ul style="list-style-type: none"> ▪ Laguna Grande Regional Park and Trail, Monterey Side ▪ Monterey Bay Coastal Recreation Trail ▪ Shoreline Stroll Trail ▪ North Fremont Bike and Pedestrian Trail

¹In¹ addition to the sports facilities listed, thee facilities at CSUMB campus provide opportunities for the public to utilize hiking trails and biking trails (both paved and dirt), children’s play centers and picnic areas; ride horses; observe wildlife; and observe college related sports events.

Additionally, the North Fremont Bicycle and Pedestrian Project is currently under construction and will be located on North Fremont Street in Monterey. This trail will be the first Class IV bike path to be located within a median in California (City of Monterey 2019). North Fremont is now a multi-modal corridor, providing safe access to bicyclists and pedestrians between residential and commercial development (City of Monterey 2019). This trail would connect with FORTAG where the Canyon Del Rey/SR 218 segment crosses Fremont Boulevard, providing connectivity from the project alignment to land uses within the City of Monterey.

Comments received during the EIR scoping period and observations made during field visits revealed that there is growing concern over transient or homeless people loitering or illegally camping in some of the existing parks and recreation facilities, such as Del Rey Oaks Park and the associated unnamed trail along the proposed Canyon Del Rey/SR 218 segment.

Health Care Facilities and Medical Transport

The Monterey County Public Health Department, through the Monterey County EMS, has contracted with American Medical Response (AMR), a national medical transport company, to provide emergency and non-emergency medical transport services throughout Monterey County since 2009. AMR Monterey provides comprehensive ambulance services including 911 paramedic services, inter-facility transport and critical care transport. AMR also provides standby emergency medical services for events that include the Laguna Seca Raceway, rodeos, festivals, local sports, and entertainment productions throughout the year (AMR 2019). AMR also contracts with CALSTAR to provide air ambulance transport, as necessary.

The Monterey County Regional Fire District provides EMS and ambulance transport services in support of AMR; however, service is largely limited to Carmel Valley and the Big Sur coast. During periods of peak demand, the District provides support throughout all of Monterey County.

When patients are transported, local hospitals are utilized for care. The major hospitals in the county are the Community Hospital of the Monterey Peninsula, located in Monterey, approximately four miles from the southernmost FORTAG segments; and Natividad and Salinas Valley Memorial hospitals, located in Salinas, approximately seven miles east of the northernmost FORTAG segments. All three hospitals operate emergency rooms and provide surgery centers and ongoing care. There are also medical office buildings and urgent care facilities located throughout Monterey County by Monterey Bay Urgent Care and Doctors on Duty.

Schools

There are 135 public schools located throughout Monterey County within 24 school districts that serve approximately 77,000 students (Monterey County Office of Education 2014). The project corridor is located within the Monterey Peninsula Unified School District (MPUSD), which includes:

- Two Early Childhood Education Learning Centers
- 11 Elementary Schools (Grades TK - 5)
- Three Middle Schools (Grades 6 - 8)
- Three Comprehensive High Schools (Grades 9 - 12)
- One Alternative High School
- Three Charter Schools
- One Adult School
- Eight After School Learning Academies

MPUSD service area encompasses the cities of Marina, Seaside, Monterey, and Del Rey Oaks, providing public education opportunities to approximately 10,000 students living along and adjacent to the project corridor.

Additionally, colleges in the area include CSUMB in Seaside, Monterey Peninsula College in Monterey, Middlebury Institute of International Studies in Monterey, and Hartnell College in Salinas.

Public schools located within 0.25 mile of the project corridor include the following.

- Ione Olsen Elementary School, located in the City of Marina and within the vicinity of the Northern Marina segment;
- Del Rey Woods Elementary School, located in the City of Seaside and within the vicinity of the Canyon Del Rey/SR 218 segment;
- Cypress Continuation High School, located in the City of Seaside and within the vicinity of the Canyon Del Rey/SR 218 segment; and
- CSUMB, located in the cities of Marina and Seaside and within the vicinity of the CSUMB Loop North, CSUMB Loop South, and National Monument Loop segments.

Libraries

Monterey County Free Libraries (MCFL) was established by the Monterey County Board of Supervisors and provides free library services for those living along the project corridor. Facilities include 17 free branch libraries, two bookmobiles, a library by mail program, book return collections in local schools, and a number of special programs, including a literacy program which operates a literacy outreach vehicle focused on family literacy and kindergarten readiness (MCFL 2019). Free library services are provided to all residents of Monterey County. The following MCFL branch libraries are located within close proximity to the project corridor:

- Marina Branch, 188 Seaside Circle, within 1,000 feet of the Northern Marina segment
- Seaside Branch, 550 Harcourt Avenue, within 1,000 feet of the Canyon Del Rey/SR 218 segment

4.13.2 Regulatory Setting

The following section summarizes the federal, state and local policies and regulations applicable to the public services identified above.

State

1997 Fort Ord Reuse Authority Base Reuse Plan

The Fort Ord Reuse Authority adopted the Base Reuse Plan (BRP) in June 1997, and a revised version of the BRP was published in digital format in September 2001 and March 2018, incorporating various corrections and errata. The BRP has six elements that including Land Use, Circulation, Recreation and Open Space, Conservation, Noise, and Safety. Each of the elements includes a summary of existing conditions, focused objectives, and policies and programs for each jurisdiction.

The BRP Recreation and Open Space Element contains goals and policies aimed at establishing an open space system that preserves and enhances the natural environment of former Fort Ord lands by providing a range of accessible recreational experiences for residents and visitors (FORA 1996).

California Master Mutual Aid Agreement

The California Master Mutual Aid Agreement is a framework agreement between the State of California and local governments for aid and assistance by the interchange of services, facilities, and equipment, including but not limited to, fire, police, medical and health, communication, and transportation services and facilities for emergency rescue, relief, evacuation, rehabilitation, and reconstruction services. The project corridor is covered by a mutual aid agreement between the State and Monterey County to provide fire and emergency response services, and the BLM, CHP, Monterey County's Sheriff's Department and the cities of Marina, Seaside, Monterey, and Del Rey Oaks to provide police services throughout the County.

California State University Monterey Bay Master Plan

The CSUMB Master Plan was developed to guide the physical development of the campus and discusses the land use, open space, mobility, infrastructure systems, and other planning frameworks on campus (CSUMB 2017). Chapter 7, Mobility, of the Plan describes the system of infrastructure, amenities, and programs that allow for movement throughout the campus, with an emphasis on the desire for the prioritization of active transportation. Pedestrian travel is regarded as the primary mode of travel to campus.

Local

Monterey County General Plan

The Monterey County General Plan provides a framework for development and growth in the County (Monterey County 2010), with the goal of providing a safe community for the residents of Monterey County. The Public Services Element addresses critical infrastructure and service issues, including water supply and conservation, water quality, parks, wastewater collection and disposal, solid waste management, and key social services such as schools, libraries and medical care. Police and fire protection services are addressed in the Safety Element. In addition, the Circulation Element identifies the general location and extent of existing and proposed major transportation facilities for vehicle, rail, air, water, and bicycle transportation including goals relative to major roadways, the movement of people and goods throughout the County scenic highways and public transportation.

Additionally, the 2010 Monterey County General Plan Update includes seen Area Plans and two Master Plans to provide supplemental policies and objectives for specific geographic areas. Those applicable to unincorporated portions of the project corridor include the Greater Monterey Peninsula Area Plan (GMPAP) and the Fort Ord Master Plan (FOMP).

The General Plan goals and policies that are intended to mitigate or reduce environmental impacts and that are relevant to the FORTAG project are listed in **Table 4.11-2, Section 4.11, Land Use and Planning**. The following objectives, goals or policies from these documents are specifically related to bicycle/pedestrian trails and safety and have been paraphrased.

- Coordinate with TAMC and appropriate interests and agencies to develop an integrated comprehensive bicycle plan (General Plan, Circulation Element, Policy C-9.1)
- Uses including low intensity recreation are most acceptable land uses in 100-year flood zone (General Plan, Safety Element, Policy S-2.2)
- Physically separate bike paths from motorized traffic (GMPAP Policy GMP-2.9)

- Develop riding and hiking trails with intent of a creating a coordinated, area-wide trail system (GMPAP Policy GMP-3.11)
- The County, through the Parks Department, shall address the following fundamental elements with regard to trail acquisition, development, and use as expeditiously as possible: a) design standards, b) trail location, c) construction standards, d) liability questions, e) patrol and enforcement, f) restrictions or limitations on types of use appropriate to specific trails or trail segments, g) maintenance and operation plan, and h) burden of cost (GMPAP Policy GMP-3.12).
- Work with Peninsula cities to increase parks and recreation facilities (GMPAP Policy GMP-5.1)
- Provide a comprehensive pedestrian and bike system that supports the needs of Fort Ord residents, employees, students and visitors (FOMP, Circulation Element, Pedestrians and Bicycle Program, Objectives A and B)
- Create a unified system of hiker/biker and equestrian trails which link all sectors of former Fort Ord and encourage alternative means of transportation (FOMP, Recreation and Open Space Element, Objective F).

Monterey Peninsula Regional Park District Master Plan

The Monterey Peninsula Regional Park District (MPRPD) Master Plan contains policies and an implementation strategy to establish and maintain long range goals for the protection and use of open space, provides criteria for open space acquisition and management decisions, and disseminates public information about the District's community partnership role (MPRPD 1998).

Select portions of the FORTAG corridor would traverse, connect to, or be located within the vicinity of the following parks that are overseen by the District.

- **Locke-Paddon Wetland Community Park.** The west end of the proposed Northern Marina segment would connect to the existing Coastal Rec Trail at Beach Road. This trail connection would be located approximately 600 feet north of Locke-Paddon Park. The City of Marina is responsible for park administration.
- **Roberts Lake Park.** The west end of the proposed Canyon Del Rey/SR 218 segment would connect to the existing Coastal Rec Trail via an at-grade crossing at Del Monte Boulevard. This trail connection would provide a public trail connection between the proposed inland FORTAG network and the existing Coastal Rec Trail. The City of Seaside is responsible for park administration.
- **Laguna Grande Community Park.** The west end of the proposed Canyon Del Rey/SR 218 segment would traverse the southwestern side of Laguna Grande in the City of Monterey before crossing Del Monte Boulevard to connect with the Coastal Rec Trail at Roberts Lake Park. An alignment design option for the portion that traverses Laguna Grande Community Park would extend the Trail along the northeastern side of Laguna Grande in the City of Seaside before connecting to the Coastal Rec Trail. The City of Seaside is responsible for park administration.
- **Frog Pond Wetland Preserve.** The Canyon Del Rey/SR 218 segment would follow along the eastern and southern perimeter of the Frog Pond Wetland Preserve in the City of Del Rey Oaks. The MPRPD is responsible for park administration.

Trails within the District are managed for pedestrian, bicycle, equestrian, or a combination of such non-motorized uses to or between existing public access lands. The policy further states that trails in the District may be developed as Class I, II, or III depending on the surrounding environment and

may include support facilities such as trailhead parking, benches, and public information signs (MPRPD 1998).

Monterey County Regional Transportation Plan

The Transportation Agency for Monterey County (TAMC) is designated by the State of California to serve as the Regional Transportation Planning Agency for Monterey County. The Monterey County Regional Transportation Plan (2018), developed by TAMC, in coordination AMBAG, identifies challenges confronting the County's transportation system and provides financing strategies to undertake countywide transportation projects that enhance mobility, access, environmental quality, and economic activities while promoting sustainable land use patterns (TAMC 2018a). FORTAG is included among the projects identified in the Monterey County Regional Transportation Plan.

Active Transportation Plan for Monterey County

TAMC updated the Active Transportation Plan for Monterey County in 2018. The Active Transportation Plan identifies remaining gaps in the bicycle and pedestrian network, as well as opportunity areas for innovative bicycle facility design (TAMC 2018b). The main goals of the Active Transportation Plan are to increase the proportion of trips accomplished by biking and walking throughout Monterey County, remove gaps and enhance bicycle and pedestrian network connectivity, and provide improved bicycle and pedestrian access to diverse areas and populations in Monterey County via public engagement, program delivery, and capital investment. The Active Transportation Plan identifies goals and policies from the County's General Plan Circulation Element, which relate to the provision of alternative transportation options in the County as a means of reducing vehicle miles traveled. FORTAG is included on the list of projects in the Active Transportation Plan.

City of Marina

2000 City of Marina General Plan

The City of Marina's 2000 General Plan (amended 2010) serves as a framework for guiding daily and long-term planning and development decisions by the City of Marina in a manner consistent with the City's goals (City of Marina 2000). Goals and policies of the General Plan that are intended to mitigate or reduce environmental impacts and that are relevant to the FORTAG project are included in the Conservation and Open Space and Safety Elements of the General Plan, and include measures to protect public resources and the public safety of the City of Marina.

City of Marina Pedestrian and Bicycle Master Plan

The City of Marina Pedestrian and Bicycle Master Plan was developed as a long-term planning document to provide guidelines for facilities improvements, identify funding opportunities, and to help the City to reduce greenhouse gas emissions (City of Marina 2010). In addition, Chapter 2.0 of the Plan discusses coordination between the City of Marina and other jurisdictions for regional pedestrian and bicycle planning. Several of the listed jurisdictions are within the boundaries of the project corridor, including TAMC, CSUMB, FORA, the City of Seaside, and the County of Monterey.

City of Seaside

2004 City of Seaside General Plan

The City of Seaside's 2004 General Plan serves as the blueprint for future growth and development, aimed at creating a community with a variety of housing, recreational, and economic opportunities (City of Seaside 2003). Goals and policies of the General Plan that are intended to mitigate or reduce environmental impacts and that are relevant to the FORTAG, including those within the Parks, Conservation and Open Space Element that measures regarding lighting for safety purposes, and the Safety Element, regarding adequate public services to serve the public.

2005 City of Seaside Parks, Recreation, and Community Services Plan

The City of Seaside Parks, Recreation, and Community Services Plan (Parks and Rec Plan) identifies critical issues for the future use of the City's parks system, such as the need to provide adequate park facilities in all of the Seaside neighborhoods, provide support facilities for recreational activities, and upgrade the existing park system (City of Seaside 2005). The Parks and Rec Plan notes recreational development opportunities and needs for former Fort Ord lands within the City's jurisdiction. The Parks and Rec Plan includes development policies for trails to ensure proposed trails are compatible with existing land uses, road and trail networks, and accessible by trail users; as well as general design standards to ensure proposed trails are planned, sized, and designed for appropriate uses (such as multi-use or pedestrian-only nature trails).

The Parks and Rec Plan integrates applicable guidelines from the Fort Ord BRP for development of former Fort Ord lands and lists several recommended improvements for the Laguna Grande Park. Recommended improvements for the Laguna Grande Park include the installation of new pathways in select areas, installation of signage and benches, and additional lighting.

City of Monterey

2006 City of Monterey General Plan

The City of Monterey's General Plan contains goals and policies which serve to guide future urban design decisions for the City by preserving and enhancing Monterey's physical setting and image as a town (City of Monterey 2005). Goals and policies of the General Plan included within the Safety Element include measures to protect the safety of the public throughout the design and implementation of local recreational amenities.

2016 City of Monterey Parks and Recreation Master Plan

The City of Monterey Parks and Recreation Master Plan (PRMP) was adopted in 2016 as an update and replacement of the City's 1986 Plan, and incorporates elements of other City plans such as the Waterfront Master Plan, Multi-Modal Mobility Plan, and the Downtown Specific Plan (City of Monterey 2016).

The PRMP identifies the Ryan Ranch Open Space site as having potential for future development for recreational use. Though a feasibility study would need to be completed, the PRMP notes that a multi-field sports complex may be a potential project for the Ryan Ranch Open Space site since a portion of the site has access to water and is relatively flat.

The proposed Ryan Ranch segment would extend southeast toward Ryan Ranch, crossing South Boundary Road at Rancho Saucito. This segment would connect the main FORTAG spine with employment areas in the Ryan Ranch Business Park in the City of Monterey.

City of Del Rey Oaks General Plan

The City of Del Rey Oaks General Plan provides a framework for development and growth in the city (City of Del Rey Oaks 1997). Goals and policies of the General Plan included in the Open Space/Conservation Element provide a framework for the development of safe, diverse, local recreational amenities throughout the City.

4.13.3 Methodology and Significance Thresholds

Methodology

This section describes the potential environmental impacts of FORTAG and all FORTAG design options relevant to public safety and services. The assessment of potential impacts to public safety and services is based on potential changes in the level of service and need for additional facilities that may be required through the addition of the FORTAG. Determining the changes in service and need for additional facilities is based on a review of local policies and discussions with local service providers.

Significance Thresholds

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

1. 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:
 - a. Fire protection
 - b. Police protection
 - c. Schools
 - d. Parks
 - e. Other public facilities, including libraries and healthcare facilities

Impacts related to the increased use of existing recreational facilities and the construction of new or expanded recreational facilities is addressed in **Section 4.18, *Effects Found Not to be Significant***.

4.13.4 Project Impact Analysis

Threshold 1: 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 fire protection, police protection, schools, parks, libraries or healthcare facilities?

Impact PS-1 **THE PROJECT WOULD NOT RESULT IN ADVERSE PHYSICAL IMPACTS ASSOCIATED WITH THE NEED FOR ADDITIONAL EMERGENCY SERVICES AND FIRE PROTECTION TO MAINTAIN ACCEPTABLE SERVICE RATIOS OR RESPONSE TIMES. HOWEVER, PUBLIC CONCERNS FOR SAFETY ON THE TRAIL MAY RESULT IN INCREASED CALLS FOR POLICE PROTECTION SERVICES. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.**

The FORTAG project would introduce a 28 mile multi-purpose trail in northwestern Monterey County, with an estimated daily use of 1,000 to 3,000 Trail users. Although most of the Trail would separate pedestrian and bicycle use from local roadways, there would be several at-grade road crossings, as described in **Section 2.4, Project Characteristics**.

Trail users may include local residents, workers and students, in addition to tourists and local recreators, but would not result in a permanent increase in the local population. In addition to people using the trails for recreation, there could also be transient or homeless people resting, loitering or camping illegally based on observations along the project corridor during the field visit and observations of other existing trails in Monterey and Santa Cruz counties (Applied Science Research 2019).

The increased human activity from Trail users, including at-grade road crossings and potentially transient or homeless people loitering and illegally camping throughout the project corridor, could result in additional calls for emergency, fire and/or police protection services. The expansion of services could result in the need for additional emergency, fire and/or police protection personnel to support the needs of the increased population utilizing the project corridor, but is unlikely to result in the need for new or physically altered facilities (e.g., fire station) as there would be no change in the permanent population within the project corridor, nor would additional public amenities (e.g. drinking fountains, public restrooms) be added to support additional use throughout the area.

Emergency Transport Services

The Monterey County EMS system regulates emergency response services throughout the Monterey County Operational Area, including the FORTAG project corridor. The project area is located within the EMS green zone, with an approximately 8 to 12 minutes response time for EMS service.

In the event that ambulance transportation service is required, AMR is contacted by the Monterey County EMS system. AMR has a number of facilities throughout Monterey County that fluctuate the number of ambulances available, depending on the expected needs and prior season fluctuations in the County. AMR does not anticipate that the installation of the FORTAG would require additional ambulance service to continue to effectively serve the Monterey County area because the project would not result in a permanent increase in the overall population (Monterey County 2019c).

Further, most of the Trail is separated from roadways, and the at-grade crossings would be “stop controlled” (i.e., stop signs or traffic signals would be in place to stop vehicles and enable Trail users to cross the roadway), which would reduce anticipated emergency response associated with traffic-related accidents. Therefore, this impact would be less than significant. No mitigation would be required.

Fire Protection Services

The Monterey County Fire Department, in conjunction with the local cities and Monterey County Emergency Communication Department, monitor population growth and projections in their service area, and respond by fluctuating service to improve response times and to meet the needs of the changing population when providing fire protection services. This results in consistent emergency response times throughout the County, provided through the support of the Monterey County Emergency Communication Department.

The FORTAG project would not result in the construction of buildings or other facilities that would present unique challenges for fire protection; however, an overall increase in the current population utilizing the project corridor for trail use may result in activities that require safety-related response from the local fire jurisdictions (e.g., injury, unintentional fire).

Because implementation of the project would not result in a permanent increase in the local population, or the addition of structures throughout the project corridor, it is anticipated that any potential increase in calls could be serviced by existing personnel and facilities, and would not require the construction of new facilities which could cause a physical impact on the environment. The service providers would continue the ongoing monitoring of the volume and nature of fire service calls to allocate resources based on the dynamic ever-changing needs of the community throughout the service area, and modify the distribution of resources accordingly.

Implementation of the project would also not result in a change in emergency access throughout the project corridor. Through design, the proposed alignments would provide sufficient emergency access for responders and first response equipment. Emergency vehicles could access the Trail from the existing roadways that are located adjacent to the FORTAG alignments. Fire engines, on average, require a minimum of 12 feet to accommodate fire trucks along a trail. The FORTAG segments, with the exception of the portion within the Frog Pond Wetland Preserve, would easily accommodate this as the total width ranges from 12-16 feet, including the paved trail and unpaved shoulders. The Frog Pond Wetland Preserve currently has an unpaved trail that does not support emergency vehicle access; responders currently park on the perimeter and access the trail on foot, and this practice would continue.

Throughout the National Monument Loop segment, the adjacent Blue Line Road (BLR) is a 15-foot-wide gravel/natural surface roadway that provides maintenance, patrol and fire access for the BLM. As a result of project implementation, access to this roadway would be maintained, although portions of the roadway would become FORTAG trail alignment.

Because implementation of the project would not result in the need for additional fire protection staff or resources, the need for new or altered facilities to provide fire protection services, or result in substantial changes in access throughout the project corridor, this impact would be less than significant. No mitigation would be required.

Police Protection Services

As described above, the increased human activity along the project corridor, including the potential for increased transient/homeless persons loitering or trespassing onto adjacent lands, which could result in additional calls for police protection or law enforcement service.

As described in **Sections 2.5, Operations and Maintenance**, because FORTAG would traverse multiple jurisdictions, a Master Agreement (MA) would be prepared between TAMC and each underlying jurisdiction to identify maintenance responsibilities, trail use rules, and other considerations that require coordination between the various agencies and groups involved in FORTAG's development and management. Rules and restrictions for Trail use may vary by jurisdiction. The MA, together with the Supplemental Agreements prepared for the development and operation of each FORTAG segment, would establish any applicable rules for each jurisdiction, as agreed upon in conjunction with TAMC. This is in accordance with County GMPAP Policy GMP-3.12 described above, that states the County, through the Parks Department, shall address maintenance, operation, patrol and enforcement when developing trails.

The Monterey County Sheriff's Office monitors the growth and crime rates of the population throughout the county and responds with fluctuations in service provisions to meet the needs of the changing population. The Sheriff's Office works with CHP, BLM, and the cities of Marina, Seaside, Monterey, and Del Rey Oaks to provide ongoing services throughout the FORTAG corridor, responding to any land use or population changes that may impact service levels. Emergency response services times range from immediate to 24 minutes, depending on the severity, jurisdiction and environment in which the location of the call has come from; however, the County processes each emergency call within 75 – 90 seconds (Monterey County 2019c). The Sheriff's Office acknowledges the planned increase in alternative transportation alignments throughout the County, including those associated with the FORTAG project, and would continue to monitor needs throughout the County to maintain current levels of service (Monterey County 2019c).

Although the FORTAG project would not require the expansion of services or personnel currently provided by the Sheriff's Office and local police departments, nor the construction of new or altered facilities (e.g., police stations) which could cause physical impacts to the environment, to provide law enforcement services along the new trail in their respective jurisdictions (Monterey County 2019c), it is acknowledged that the increase in available alternative transportation corridors may result in a change in the distribution of transients and/or homeless populations. This change in the location of these populations may result in an increase in calls to local law enforcement, which may require future changes in the level of police protection services that are required within local neighborhoods. Anticipated changes have the potential to reduce existing response times and impact service objectives. Potential issues include trespassing on adjacent lands, vandalism, the establishment of homeless encampments, and excessive debris, all of which may increase crime and degradation of environment.

In the event that illegal encampments are established along the FORTAG alignment, the Sheriff's Office or City police department would respond upon seeing or being informed of their presence. It is their duty to both cite and relocate illegal campers and all belongings to the appropriate facility in the county, in accordance with Monterey Community Homeless Solutions policies and programs. It would also be their duty to ensure that debris and waste be removed from the site. The County would provide appropriate services for individuals, to the greatest extent feasible, that may include transitional shelters, permanent housing programs, and income and employment support, with the goal of reducing the overall homeless population throughout the County.

If ongoing illegal camping or criminal activity is identified along the FORTAG alignments, the MA (and Supplemental Agreements) would address regular patrol of the alignment by the Sheriff's Office or local police department to ward off the establishment of permanent illegal campers and reduce crime. Monitoring specifics for the FORTAG alignments would be defined in the MA's Supplemental Agreements that would be developed for the jurisdictions through which the proposed alignments would be constructed, including Monterey County and the Cities of Del Rey Oaks, Marina, Monterey, and Seaside, with TAMC. However, additional police protection may be necessary to monitor and respond to reports of illegal camping or criminal activity along the Trail.

In summary, the proposed Trail would not result in an increase in the permanent population within the project corridor, but may result in increased calls to local law enforcement, provided by the Sheriff's office and local police departments through Mutual Aid agreements, which may require increased levels of police protection services in the future that are required within local neighborhoods. As discussed above, based on information provided by the service providers, ongoing services defined through the Mutual Aid agreements would continue to fluctuate to serve the Trail corridor and be provided primarily by mobile police units (i.e., police cars) in accordance with current practices (Monterey County 2019c). It is not anticipated that additional police service levels along the Trail corridor would be substantial enough to require expansion or alteration of facilities (e.g., police stations).

However, because there are increasing transient and homeless populations throughout Monterey County and throughout the state (ASR 2019), and because there is a known occurrence of activity and encampments in portions of the project corridor based on observations during field visits, it is possible that the new Trail would be used by transient and/or homeless populations in the area, which could result in increased public concerns for safety and thus increased calls for law enforcement. Increased calls for law enforcement may result in changes to acceptable service response times and performance objectives. Implementation of **Mitigation Measures PS-1** and **AG-3(c)** would minimize these potential impacts through ongoing maintenance and monitoring and an adaptive management approach to providing resources needed to ensure public safety and maintain necessary response times. This impact would be less than significant with mitigation.

Mitigation Measures

PS-1 Ensure Adequate Police Monitoring and Safety Provisions for Each Portion of the FORTAG Alignment

Prior to the construction and operation of any segment or portion of FORTAG, the project Master Agreement will be developed and signed by relevant jurisdictional parties, which will include provisions requiring the entry into Supplemental Agreements at the time that actual design and construction occurs. These Supplemental Agreements shall specify: 1) maintenance activities and frequency, including trash collection; 2) safety features or provisions (e.g., lighting, fencing, signage) determined appropriate by local law enforcement in consideration of potential for homeless/transient activity, illegal camping, or criminal activity in the particular trail segment; 3) safety patrol responsibility, frequency, and reporting procedures; 4) protocol for illegal camping and loitering; and 5) monitoring and reporting methodology and frequency, in consideration of ongoing reports to local jurisdictions responsible for maintenance, law enforcement and monitoring. The Supplemental Agreements shall also identify adaptive management options if public safety and law enforcement are determined to be an ongoing issue.

AG-4(c) Regularly Remove Solid Waste and Litter during Operation

Mitigation Measure AG-4(c) is included under **Impact AG-4** in **Section 4.2, Agriculture and Forestry Resources**.

Significance After Mitigation

This impact would be less than significant with mitigation.

Impact PS-2 THE PROJECT WOULD NOT RESULT IN THE NEED FOR THE CONSTRUCTION OF NEW OR ADDITIONAL SCHOOL OR LIBRARY FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL IMPACTS, IN ORDER TO MAINTAIN ACCEPTABLE SERVICE RATIOS OR OTHER PERFORMANCE OBJECTIVES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The proposed project would not increase the permanent population, and therefore would not create an increased demand for new schools or library facilities. Although use of the facilities may increase, as opportunities to access local schools and libraries would be enhanced with the Trail, the additional users would be temporary, and largely limited to local use, as tourists would not be drawn in large numbers to local school and library facilities.

Therefore, implementation of the FORTAG project would not result in the need for additional schools or libraries, the construction of which could cause significant environmental effects, nor result in the degradation of existing schools or libraries throughout Monterey County. This impact would be less than significant. No mitigation would be required.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Impact PS-3 THE PROJECT WOULD NOT RESULT IN THE NEED FOR THE CONSTRUCTION OF NEW OR ADDITIONAL PARK FACILITIES, NOR THE DEGRADATION OF EXISTING FACILITIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The FORTAG project would introduce a new multi-purpose trail and trail users through the cities of Marina, Seaside, Monterey Del Rey Oaks, and unincorporated Monterey County, providing improved access to local parks and recreational amenities, including picnic areas, playgrounds, nature areas and existing trails. An estimated 1,000 to 3,000 users per day would access FORTAG once the alignment is fully constructed and operational; however, this population would largely include local user groups, including workers, residents and students. The project would not result in an increase in the permanent population of Monterey County. Because the physical environmental effects of constructing the new trail through this region are addressed in other sections of this EIR, this discussion focuses on the potential impact to the existing local parks and recreational facilities.

The FORTAG project would enhance public recreation throughout the County by facilitating the construction of a multi-use trail that would provide connectivity between neighborhood recreational amenities, but would not result in an increase in the permanent population of the Trail corridor. Benches, trash/recycle receptacles, and interpretive signs along the Trail would also be included in the project; however, there would be no additional parking or restroom facilities provided as a result of project implementation. Therefore, implementation of the FORTAG project

would not result in the need for additional recreational facilities or parks, the construction of which could cause significant environmental effects, nor result in the degradation of existing park facilities in the vicinity on the project alignment. This impact would be less than significant. No mitigation would be required.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Impact PS-4 THE PROJECT WOULD NOT RESULT IN THE NEED FOR THE CONSTRUCTION OF NEW OR ADDITIONAL HEALTH SERVICE FACILITIES, NOR THE DEGRADATION OF EXISTING FACILITIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

FORTAG would not result in an increase in the permanent population that would need health care services, and thus would not result in the need for new health care facilities or the expansion of existing facilities. However, there would be an increase in Trail users along the proposed alignment, including bicyclists, walkers, runners, hikers, equestrians, and general recreators, through the use of the new trail and access to additional recreational opportunities along the project corridor.

Use of the new trail and increased use of other recreation opportunities accessed by the Trail could result in an increase in injuries and/or medical emergencies as a result of users being located in areas that are not currently easily accessed. These injuries and/or medical emergencies would be treated by the existing health care facilities in the county, including the Community Hospital of the Monterey Peninsula located in Monterey, Natividad and Salinas Valley Memorial Hospitals located in Salinas, or local urgent care facilities. However, bicyclists currently utilizing local roadways in the region around the project corridor are often in close proximity to high-speed vehicular traffic would have the opportunity to utilize the FORTAG alignment instead, thereby improving safety and decreasing the likelihood of a bicycle-vehicle collision (see **Impact T-3 in Section 4.14, Transportation**). The potential impacts to emergency response providers are addressed above under **Impact PS-1**.

Temporary population influxes in the Monterey Peninsula region are common as the county supports a wide variety of amenities, both constructed and natural, that draw many visitors year-round. The increase in the use of health care facilities as a result of the new trail would not be expected to be substantial enough to require construction of new health care facilities, nor would existing facilities need to be expanded, resulting in potential physical effects on the environment.

Therefore, this impact of the proposed project would be less than significant. No mitigation is required.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

4.13.5 Cumulative Impact Analysis

The geographic scope for the cumulative analysis of public safety and services includes the service areas for fire, police and emergency response, which includes the CHP, BLM, Monterey County Sheriff's Department, Monterey County Office of Emergency Services, CSUMB Police and Fire Departments, the Cities of Marina, Seaside, Del Rey Oaks, Monterey, and ambulance services provided by AMR.

As show in **Table 3-1** in **Section 3**, *Environmental Setting*, numerous development projects are anticipated in the vicinity of the FORTAG study area. The projects that are listed in **Table 3-1** include residential, commercial and other development that would require public services, including emergency response, police and fire protection, parks and recreation, schools, libraries and healthcare facilities. The extent of development would likely require the need for additional services, including staff resources and possibly the construction of new facilities (e.g., fire or police stations, parks, schools), which could result in a potentially significant physical impact on the environment (e.g., increased air emissions, traffic, noise, etc.), and therefore a significant cumulative impact on local resources.

As discussed above under **Impact PS-1**, although the proposed FORTAG project would not result in a permanent increase in the population of Monterey County, it would provide an additional recreation and transportation corridor that would provide a means for the public to utilize lands that are currently undeveloped for pedestrian and bicycle use. This may result in safety concerns throughout the FORTAG corridor, as a result of the increased use of trails in remote areas by the general public, the potential for transient and/or homeless populations to utilize the trail corridors for illegal camping, and the addition of trash and/or debris throughout the County. However, the contribution would not be significant, as discussed above.

As the cities and unincorporated areas in the vicinity of the project grow through development, the County Sheriff's office monitor and adjust the services provided to the citizens and visitors of Monterey County to meet the fluctuating needs of the public, including the increased use of additional recreational and alternative transportation facilities (Monterey County 2019) that includes the proposed FORTAG project. Similarly, the police protection services provided by the local jurisdictions along the project corridor are anticipated to fluctuate to meet service needs as they arise without the need for additional police stations or other facilities that would cause impacts. Further, mitigation has been identified to minimize these potential impacts through ongoing maintenance and monitoring and an adaptive management approach to providing resources needed to ensure public safety. The mitigation includes ensuring adequate police monitoring and safety provisions are provided through the MA and Supplemental Agreements that would be established for each segment of the project. Therefore, the project's contribution to this impact would not be cumulatively considerable.

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4.14 Transportation

This section describes the environmental and regulatory setting for transportation, the effects on transportation that could result from the proposed FORTAG project, and the mitigation measures identified to reduce potentially significant effects.

4.14.1 Existing Conditions

a. Roadway Network

The roadway network within Monterey County consists of thousands of miles of roadways, including highways, regional arterial roads and other collector and local streets. Within the project area, the designated routes in the national highway system are all state or federal highways and include State Route (SR) 1 to the west of the FORTAG alignment, SR 68 in the City of Monterey, and SR 218 in the cities of Seaside, Monterey, and Del Rey Oaks and unincorporated portions of the County. Vehicle travel served by these highways includes all trip lengths and trip purposes, ranging from trips to and from the region, trips traveling through the region with distant start and endpoints (e.g. from San Francisco to Los Angeles on SR 1), and internal travel between points within the region.

Monterey County and the incorporated cities that the Trail would intersect, including Marina, Seaside, Monterey, and Del Rey Oaks, are responsible for an extensive network of local roads. Some of the major city and county roads that occur in proximity to the proposed FORTAG alignment include:

- 2nd Avenue in Marina;
- Imjin Road in Marina;
- Inter-Garrison Road in Marina;
- Gigling Road in and near Seaside;
- General Jim Moore Boulevard in Seaside;
- Freemont Boulevard in Seaside and Del Rey Oaks; and,
- Del Monte Boulevard in Seaside and Monterey.

Like many areas in California, the highways, arterials, and collector streets in the vicinity of the project experience traffic delays and congestion, especially during peak commute hours on weekdays. Additionally, since the region surrounding FORTAG is a popular tourist destination, visitor traffic can also cause delays on highways on weekends and during peak tourist seasons.

b. Parking Conditions

It is the intention of the project to use existing parking areas for the Trail users. Parking areas are shown in **Figure 2-17** in **Section 2, Project Description**. They include on-street parking and surface parking lots. Existing parking areas that have been identified for the Trail users include:

- Laguna Grande Regional Park in the City of Seaside
- Del Rey Oaks Park in the City of Del Rey Oaks
- CSUMB campus in the cities of Seaside and Marina
- Marina Equestrian Center Park in the City of Marina

- Jerry Smith trailhead, on the south side of Inter-Garrison Road between CSUMB and East Garrison
- 8th Street and Gigling Road trailhead
- SR 218 street shoulder parking at Frog Pond Wetland Preserve
- Inter-Garrison Road street shoulder parking on the Northern Loop segment

c. Pedestrian and Bicyclist Circulation

Bikeways are facilities that provide primarily for, and promote, bicycle travel. There are four types of bikeway classifications identified by the California Department of Transportation (Caltrans) (Caltrans, 2017). These classes are as follows:

- **Class I.** Paths or trails, separated from roadways, for the exclusive use of bicycle and pedestrian modes of travel
- **Class II.** Designated lanes for bicycles on roadways
- **Class III.** Roads where bicycles and vehicles share the travel lanes of the roadway
- **Class IV.** Designated lanes for bicycles on roadways that are separated from the vehicular lanes by barricades, such as bollards, raised curbing, or parking lanes.

Monterey County possesses 887 miles of bikeways (AMBAG 2014). One of the major continuous bikeways in the county is the Monterey Bay Coastal Recreation Trail (Coastal Rec Trail), which measures approximately 29 miles in length and stretches from Castroville in the north to the Monterey Peninsula and parts of Pebble Beach to the south. The Coastal Rec Trail runs adjacent to the Fort Ord Dunes State Park located between the cities of Seaside and Marina. The state park also manages its own parallel bike path that is accessible on both ends of the Fort Ord Dunes Park from the Coastal Rec Trail. Most of these sections are Class I bikeways, but short sections are Class II and Class III (TAMC, 2008). Another notable bike lane in the area is the recently-constructed North Fremont Bike and Pedestrian Access and Safety Improvements Project in Monterey, which added protected bike lanes adjacent to the medians of North Fremont Street.

In addition to bikeways, pedestrian sidewalks are provided along many roadways in Monterey, Del Rey Oaks, Seaside, and Marina, in proximity to the proposed FORTAG alignment. Pedestrian crosswalks are provided at major intersections in these cities. Many of these include pedestrian-activated signal devices.

d. Transit and Rail Operations

Monterey-Salinas Transit (MST) provides fixed route transit service in Monterey County. The fixed route service includes 62 fixed routes and consists of a fleet of 128 vehicles, mostly buses (MST 2018a). MST bus stations are located in the cities of Carmel-by-the-Sea, Del Rey Oaks, Greenfield, Gonzales, King City, Marina, Monterey, Pacific Grove, Salinas, Seaside and Soledad, as well as the community of Chualar. MST also provides public transit service in areas of unincorporated Monterey County, including the communities of Castroville, Pajaro, Prunedale, Moss Landing, Toro Park, Carmel Valley, Carmel Highlands and Big Sur. To assist inter-regional connections, MST also provides service to the Watsonville Transit Center in Santa Cruz County and the Gilroy Caltrain station in Santa Clara County. MST had approximately 4.64 million passenger trips on its fixed route system in Fiscal Year 2018 (MST 2018b).

The rail network within Monterey County includes all rail lines or other facilities currently served by a railroad for passenger or freight movement, rail lines used for recreational service, rail lines not currently in use, and abandoned rail lines or facilities (either with or without track). The only regular passenger rail transportation currently operating in the County is provided by Amtrak. There are no Amtrak train stations within proximity to the proposed FORTAG alignment. The nearest Amtrak station is in downtown Salinas, approximately six miles east of FORTAG. Amtrak trains share the Union Pacific Railroad main line tracks through the City of Salinas. These main line tracks generally follow U.S. Highway 101 north through Monterey County into the City of Salinas, and then SR 183 between Salinas and Castroville, before continuing north into Santa Cruz County. There are no active rail road tracks adjacent to or in proximity to FORTAG, other than the Union Pacific main line tracks in Salinas. However, there are inactive railroad tracks adjacent to the Coast Rec Trail, which is west of FORTAG, on the west side of the cities of Seaside, Monterey, and Marina.

4.14.2 Regulatory Setting

a. State

California Transportation Plan

The California Transportation Plan is prepared by the California State Transportation Agency every five years to provide a long-range policy framework to meet the State's future mobility needs and reduce greenhouse gas emissions to goals set by the California Global Warming Solutions Act of 2006 (AB 32, discussed in **Section 4.8**, *Greenhouse Gas Emissions/Climate Change*) and implementing legislation SB 375 (discussed below). The most recent California Transportation Plan was adopted in 2016. The California Transportation Plan defines goals, performance-based policies, and strategies to achieve the State's collective vision for California's future statewide, integrated, multimodal transportation system by envisioning a sustainable system that improves mobility and enhances quality of life. The California Transportation Plan is developed in collaboration with transportation stakeholders such as the Association of Monterey Bay Area Governments. Through ongoing engagement, the California Transportation Plan is intended to provide goals and visions to support a fully integrated, multimodal, sustainable transportation system that supports the quality of life, prosperous economy, human and environmental health and social equity.

Senate Bill 743

Senate Bill 743 changed the way that public agencies evaluate the transportation impacts of projects under CEQA, recognizing that roadway congestion, while an inconvenience to drivers, is not itself an environmental impact (see Pub. Resource Code, § 21099, subd. (b)(2)). Senate Bill 743 provides opportunities to streamline CEQA for qualifying urban infill development near major transit stops in metropolitan regions statewide. A transit-oriented infill project can be exempt from CEQA if consistent with a specific plan for which an EIR was prepared, and also consistent with the use, intensity, and policies of an SCS or Alternative Planning Strategy that is certified by the CARB as meeting its greenhouse gas reduction targets. A city or county may designate an "infill opportunity zone" by resolution if it is consistent with the general plan and any applicable specific plan and is a transit priority area within the adopted SCS or Alternative Planning Strategy. This infill opportunity zone is then exempt from level of service standards in the congestion management plan. Furthermore, under the bill parking impacts are no longer considered significant impacts on the environment for select development projects within infill areas with nearby frequent transit service.

The 2019 CEQA Guidelines, adopted December 2018, implement Senate Bill 743. In addition to new exemptions for projects that are consistent with specific plans, the 2019 CEQA Guidelines replace congestion-based metrics, such as auto delay and level of service, with vehicle miles traveled (VMT) as the basis for determining significant impacts, unless the CEQA Guidelines provide specific exceptions. A discussion of the methods used to evaluate VMT for FORTAG is provided below in **Section 4.14.3, Project Impact Analysis.**

California Bicycle Transportation Act

The California Bicycle Transportation Act of 1994 requires all cities and counties to have an adopted bicycle master plan to apply for Bicycle Transportation Account funding source. Within the FORTAG alignment, the cities of Marina, Seaside, and Monterey all have adopted bicycle plans, as does the County of Monterey. These plans are described below under the regional and local regulatory framework.

b. Regional and Local

Association of Monterey Bay Area Governments 2040 Metropolitan Transportation Plan/Sustainable Communities Strategy

The Association of Monterey Bay Area Governments (AMBAG) is the Metropolitan Planning Organization for the Monterey Bay area, including Santa Cruz County, Monterey County, and San Benito County. AMBAG is required to produce certain documents that maintain the region's eligibility for federal transportation assistance which include the Metropolitan Transportation Plan (MTP). AMBAG coordinates the development of the MTP with Regional Transportation Planning Agencies (San Benito County Council of Governments, the Santa Cruz County Regional Transportation Commission and TAMC), transit providers, the Monterey Bay Air Resources District, state and federal governments, and organizations having interest in or responsibility for transportation planning and programming. The Sustainable Communities Strategy (SCS) provides a plan for the region to help reduce greenhouse gas emissions to meet state goals and help reduce the effects of global climate change. The 2040 MTP/SCS encourages active transportation, such as pedestrian and bicycle transportation modes, in order to reduce both traffic congestion on the region's roads and greenhouse gas emissions. FORTAG is listed as a project in the 2040 MTP/SCS.

Monterey County Regional Transportation Plan

The Transportation Agency for Monterey County (TAMC) is designated by the State of California to serve as the Regional Transportation Planning Agency for Monterey County. The mission of TAMC is to plan and proactively fund a transportation system that enhances mobility, safety, access, environmental quality and economic activities by investing in regional transportation projects serving the needs of Monterey County residents, businesses, and visitors. TAMC's 2018 Regional Transportation Plan is a road map to meeting its transportation challenges and achieving these goals through 2040. The 2018 Regional Transportation Plan contains the following goals and policies that are applicable to FORTAG:

- **Goal.** Improve ability of Monterey County residents to meet most daily needs without having to drive. Improve the convenience and quality of trips, especially for walk, bike, transit, car/vanpool and freight trips.
- **Policy.** To improve safe, attractive and affordable access to work, school, goods and other key destinations by walking, bicycling and transit.

- **Policy.** Improve travel time and travel time reliability for pedestrian and bicycle trips between key origins and destinations.
- **Policy.** Improve the quality of walk, bicycle, car/vanpool and transit trips.
- **Goal.** Design, operate, and manage the transportation system to reduce serious injuries and fatalities, promote active living, and lessen exposure to pollution.
- **Policy.** To decrease fatalities and injuries for all travel modes. Pedestrian and bicyclist fatalities and injuries will not be higher than their proportion of total trips.
- **Policy.** Improve health by increasing percentage of trips made by healthy transportation options (bicycle, pedestrian and transit trips).
- **Policy.** Decrease the quantities of harmful airborne pollutants and congested vehicle miles traveled.

Active Transportation Plan

On September 2013, the State Legislature created the Active Transportation Program to encourage increased use of active modes of transportation, such as bicycling and walking. TAMC adopted its Active Transportation Plan in 2018. The Active Transportation Plan is an update of the Bicycle and Pedestrian Master Plan, which was last updated in 2011. The Active Transportation Plan includes goals and objectives that provide a blueprint for making bicycling and walking an integral part of daily life in Monterey County. The Active Transportation Plan contains maps for each of the jurisdictions of existing and proposed bicycle and pedestrian facilities, along with policies and programs to increase the proportion of trips accomplished by bicycling and walking. FORTAG is included on maps in the Active Transportation Plan.

Marina Pedestrian and Bicycle Plan

Marina adopted a Pedestrian and Bicycle Master Plan in 2010. The Master Plan is a comprehensive and long-range planning document focused on documenting and improving pedestrian and bicycle facilities. The Master Plan provides guidelines, existing and proposed facilities, safety and education programs and a description of community engagement. The projects listed in the Master Plan are included in TAMC's Active Transportation Plan, which as described above, was adopted in 2018.

Seaside Bicycle Transportation Plan

The Seaside Bicycle Transportation Plan, adopted in 2007, identifies the City's existing and planned bicycle network and related infrastructure project recommendations to achieve the following goals:

- Make bicycling in Seaside safe, convenient and pleasurable for everyday transportation to work, school, errands and to connect with other transportation modes; as well as for pleasure, recreation and health
- Promote cycling as a safe, healthful, inexpensive, and environmentally benign alternative to auto travel for short trips
- Integrate bikeways bike facilities and programs into all planning activities
- Establish bikeways that link CSUMB and Fort Ord developments to services, businesses and residential areas in Seaside proper
- Encourage development of bicycle safety education and enforcement programs to improve bicycle skills, observance of traffic laws and to promote safety for all cyclists

- Develop and upgrade bikeways and related facilities to provide improved biking opportunities
- Provide secure and visible bicycle facilities that meet the needs of all bicyclists in the City
- Increase provisions for support facilities (showers and lockers) by private employers
- Provide convenient bicycle access and parking throughout the City's transportation system
- Link City and regional bikeways to the proposed Intermodal Transportation Center to be located in the vicinity of Del Monte Boulevard and Broadway Avenue
- Uniformly apply Caltrans and City design standards and policies that promote safe, convenient and pleasurable bicycle facilities that encourage bicycle transportation
- Pursue all available bicycle funding opportunities
- Address safety issues of integrating bikeways into the motorized transportation network
- Build a network that accommodates bicyclists of all ages and riding levels
- Increase the number of bicycle commuters

The majority of planned bikeways under the 2007 Bicycle Transportation Plan would be Class III bikeways, in which bicycles and motor vehicles would share travel lanes with motor vehicles with signage as the sole physical indicator of the designation.

Monterey on the Move

Monterey on the Move is the multi-modal mobility plan for the City of Monterey and was adopted by City Council in March 2013. Monterey on the Move maximizes linkages between surrounding facilities, the City's mixed-use areas, visitor destinations, recreation and open space areas, educational facilities, and residential neighborhoods. The plan is a comprehensive, citywide plan that is intended to further the goals to maintain, manage, and enhance the movement of goods and people; and to spur the economic development and growth, job creation, and trade in Monterey. The plan does not provide goals and policies, but rather objectives and programs to achieve these objectives. The following objectives and programs are applicable to FORTAG:

- **Objective 3.** Ensure that all pedestrian and bicycle infrastructure and crossings are safe and well lit.
- **Objective 4.** Reduce obesity rates and increase overall health in the City of Monterey.
- **Program 4.1.** Partner with health providers and advocates to lead the effort on a public awareness campaign about obesity and the benefits to walking and bicycling in combating excessive weight gain.
- **Objective 6.** Enhance connections between modes of transportation to reduce congestion and provide flexibility within the transportation network.
- **Program 6.7.** Continue to identify, prioritize and fund bicycle and pedestrian projects that connect major activity centers, employment centers, parks and open space and residential areas.
- **Program 6.8.** Continue to identify and prioritize and fund projects that improve bicycle and pedestrian access and network connectivity.
- **Objective 9.** Encourage tourists to walk, bicycle and ride transit to explore Monterey.
- **Objective 10.** Create engaging and pleasurable pedestrian environments that enhance the visitor experience.

Monterey County General Plan

Monterey County adopted its most current General Plan in 2010. Goals and policies support active transportation improvements in the unincorporated communities of the county. The following bicycle and pedestrian goals and policies included in the General Plan that are relevant to the proposed project:

- **Policy C-2.4.** A reduction of the number of vehicle miles traveled per person shall be encouraged.
- **Policy C-2.5.** Overall land use patterns that reduce the need to travel by automobile shall be encouraged.
- **Policy C-2.6.** Bicycle and automobile storage facilities shall be encouraged in conjunction with public transportation facilities.
- **Policy C-3.5.** Transportation alternatives such as bicycles, car pools, public transit, and compact vehicles shall be encouraged and accommodated within and outside the public right-of-way and may be included as part of an Area Plan...
- **Policy C-4.7.** Where appropriate and sufficient public right-of-way is available, bicycle paths shall be separated from major roads and highways and be provided between adjacent communities.
- **Goal C-9.** Promote a safe, convenient bicycle transportation system integrated as part of the public roadway system.
- **Goal C-9.4.** The County shall encourage bicycling as a viable transportation mode for visitor-serving areas.

City of Monterey General Plan

The City of Monterey adopted its most current General Plan in 2005. The Circulation Element of the General Plan contains the following goals and policies that are applicable to the proposed project:

- **Goal d.** Promote a pedestrian/bicycle-friendly environment where public spaces, streets, and offstreet paths offer a level of convenience, safety, and attractiveness that encourage and reward the use of alternative modes of transportation.
- **Policy d.1.** Build on the success of the Recreation Trail [Coastal Rec Trail] to make walking and bicycling through Monterey safe and enjoyable.
- **Policy d.3.** Create an integrated, safe, and convenient pedestrian system connecting city neighborhoods, schools, recreation areas, commercial areas, and places of interest...
- **Policy d.6.** Develop pedestrian and bicycle paths in hillside and other open-space areas as part of the regional trail system and/or as links between major greenbelt and recreation areas.
- **Policy d.8.** Maintain designated bicycle routes as attractive and safe transportation facilities that provide a viable alternative to auto travel into and throughout the city.

City of Del Rey Oaks General Plan

The City of Del Rey Oaks adopted its most current General Plan in 1997. The General Plan goals support enhancing the quality of life for Del Rey Oaks residents, and creating a “village” atmosphere within the City. The following circulation goals in the General Plan are applicable to the proposed project:

- **Goal 2.** Provide or promote travel by means other than single-occupant vehicle.
- **Goal 4.** Improve and maintain a transportation network of streets, transit, and pedestrian paths and bikeways.

City of Marina General Plan

The City of Marina adopted its most current General Plan in 2000. The General Plan contains the following policies which are applicable to FORTAG:

- **Community Infrastructure Policy 3.3.2.** The City of Marina shall ensure that walking and bicycle routes are integral parts of street design and form a safe and preferred transportation network.
- **Community Infrastructure Policy 3.3.7.** The City of Marina shall coordinate with surrounding jurisdictions and agencies, such as TAMC...to pursue projects that develop new pedestrian and bicycle routes and that improve and maintain existing pedestrian and bicycle routes. New routes shall be linked to existing routes whenever possible. The City shall coordinate with these entities to apply for regional funds.

Seaside General Plan

The Circulation Element in the current adopted Seaside General Plan contains a goals and policies for transportation, but none of these are directly applicable to trail projects, such as FORTAG. However, the Circulation Element does contain the following implementation plan that is applicable to the proposed project:

- **Implementation Plan C-2.1.4: Regional Trails Network.** Coordinate with the County of Monterey and other jurisdictions to provide and maintain an extensive trails network that is linked with the networks of adjacent jurisdictions.

The Conservation/Open Space Element of the Seaside General Plan contains the following policy that is applicable to FORTAG:

- **Policy COS-1.3.** Maximize pedestrian, transit, and bicycle access to parks and other local regional activity centers as an alternative to automobile access.

Draft Seaside 2040

Draft Seaside 2040, Seaside's comprehensive General Plan update, presents different modal priorities than the currently-adopted 2004 General Plan, described above. Draft Seaside 2040 describes a vision for a multimodal network of complete streets and includes a policy that supports implementation of FORTAG. This policy and other key transportation goals and policies in Seaside 2040 that are applicable to FORTAG include:

- **Goal M-1.** A citywide network of "complete streets" that meets the needs of all users, including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, public transportation, and seniors.
- **Policy: Planning for all modes and transportation/ land use integration.** Design streets holistically, using a complete streets approach, which considers pedestrians, bicyclists, motorists, transit users, and other modes together to adequately serve future land uses
- **Policy: CSUMB and former Fort Ord lands.** Increase multimodal access to CSUMB and former Fort Ord lands.

- **Goal M-2.** Mobility options that serve the multi-modal access and travel needs generated by new development in a manner suitable to the local context.
- **Policy: Multi-modal connectivity.** Promote pedestrian and bicycle improvements that improve connectivity between existing and new development.
- **Policy: Pedestrian paths and sidewalks.** Provide adequate sidewalk widths and clear paths of travel based on the street classifications, neighboring land uses, and anticipated pedestrian demand.
- **Policy: Pedestrian access to land uses.** Provide pedestrian access to all land uses in Seaside.
- **Policy: FORTAG trail.** Support implementation of the FORTAG regional walking and bicycling trail. Coordinate with FORTAG on trail design and connectivity.
- **Goal M-5.** A citywide bicycle network that connects residential, commercial, educational and recreational uses, and earns Seaside the reputation of a bicycle-friendly city.
- **Policy: Bikeway network completion.** Strive to complete the citywide bicycle network to create a full network of bicycle facilities throughout Seaside.
- **Goal M-11.** Integrate Seaside’s circulation system with the larger regional transportation system to ensure the economic well-being of the community.
- **Policy: Coordination with neighboring jurisdictions and planned regional improvements.** Continue to coordinate pedestrian and bicycle improvements with the plans of neighboring jurisdictions and the region.
- **Policy: TAMC and countywide planning efforts.** Continue to support the overall vision, goals, objectives and policies as a partner in TAMC. The City recognizes the regional significance of connecting bicycle and pedestrian facilities, sharing consistent guidelines, needs, and preferences within the City and the greater Monterey County.

4.14.3 Methodology and Significance Thresholds

Methodology

Vehicle miles travelled (VMT) is the measure of miles traveled in a specific geographic area for a given period. VMT provides an indication of automobile and truck travel on a roadway system. VMT is calculated by adding up all the miles driven by all the cars and trucks on all the roadways in a specified geographic region. This metric is often used in noise, air quality, and greenhouse gas emissions analyses. VMT can also be used to quantify the impact of a project or plan on the larger transportation system.

According to Section 15064.3 of the CEQA Guidelines, VMT is generally the most appropriate measure of transportation impacts. Pursuant to CEQA Guidelines Section 15064.3, transportation projects that reduce or have no impact on VMT can be assumed to cause a less than significant transportation impact. Similarly, land use projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact, as should land use projects that reduce VMT. Section 15064.3 of the CEQA Guidelines states that VMT may be analyzed quantitatively using models or qualitatively. Traffic modeling was not conducted for the proposed project because it consists of a trail for pedestrian and bicycle use, and vehicle use would be prohibited. It is assumed that vehicles carrying bicycles or walkers to FORTAG would generate an inconsequential VMT, as the system is mainly intended for local recreation and trips by active transportation users. Parking access to the

facility would use existing parking areas, which would avoid the need for modifying roadways for vehicle turning movements or land for additional parking. Therefore, consistent with CEQA Guidelines Section 15064.3, VMT is analyzed qualitatively in this EIR.

Level of service (LOS) has traditionally been used to evaluate transportation impacts. Level of service is measurement of automobile delay at intersections or roadways, and essentially rates how well traffic moves during peak traffic hours. The recently adopted CEQA Guidelines state that automobile delay is not a significant environmental impact (Section 15064.a). Because this EIR is intended to evaluate the environmental impacts of FORTAG and identify the impacts that would be significant, level of service is not applicable, and is not evaluated.

Potential conflicts with programs, plans, ordinances, and/or policies pertaining to transportation were evaluated qualitatively, based on the features and design of the proposed project. Where conflicts were identified, the potential for these conflicts to result in physical effects to the environment were evaluated.

Significance Thresholds

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

1. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities
2. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)¹
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

4.14.4 Project Impact Analysis

Threshold 1: Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?
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Impact T-1 THE PROPOSED PROJECT WOULD NOT CONFLICT WITH A PROGRAM, PLAN, ORDINANCE, OR POLICY ADDRESSING THE CIRCULATION SYSTEM, INCLUDING TRANSIT, ROADWAY, BICYCLE, AND PEDESTRIAN FACILITIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Transit Facilities

The proposed project would improve pedestrian and bicyclist access and circulation in northwestern Monterey County, generally around the cities of Del Rey Oaks, Marina, Monterey, and Seaside, as well as the CSUMB campus. The general plans of these cities and Monterey County contain policies that encourage transit use and support adequate transit facilities to serve the population of the jurisdictions. Likewise, regional plans, such as AMBAG's 2040 MTP/SCS encourage active transportation and transit as opposed to single-occupancy vehicle travel in order to reduce vehicle

¹ CEQA Guidelines Section 15064.3, subdivision (b) establishes VMT as the criteria for evaluating the transportation impacts of land use projects and most transportation projects, and it also provides guidance on how lead agencies might choose to evaluate VMT.

miles traveled and associated greenhouse gas emissions. FORTAG would not require the removal of existing transit facilities or transit routes. The proposed project would not increase ridership on public transit systems that service the study area and surrounding cities because it would not induce population growth or development in the area. Therefore, FORTAG would have no conflicts with programs, plans, ordinances, or policies addressing transit facilities.

Roadway Facilities

The Trail would provide an active transportation option for commuting between homes and places of employment in the cities of Marina, Seaside, Del Rey Oaks, and Monterey, as well as parts of Monterey County and the CSUMB campus. For example, the Ryan Ranch segment of the Trail would provide access to a major jobs center near the cities of Seaside, Monterey, and Del Rey Oaks. People in the project area could shift from vehicle commutes to bicycle commutes to reach these places of employment, reducing vehicle trips and associated VMT in the project area. People using the Trail for commuting, as well as general recreation users, may drive to the Trail. This would induce some VMT. However, pursuant to guidance from the Governor's Office of Planning and Research (2018), pedestrian and bicycle facilities do not require analysis of induced VMT because they are unlikely to lead to a substantial or measureable increase in vehicle travel.

The proposed Trail would be approximately 28 miles long, with all but 2,000 feet occurring as new trail off of existing roadways. By locating almost the entire Trail off of existing roadways, temporary road closures and traffic delays during project construction would be minimized. Additionally, by design, the proposed project would not affect vehicle movement patterns, while also potentially reducing regional traffic volumes. Accordingly, the proposed FORTAG would not conflict with programs, plans, ordinances, or policies pertaining roadway facilities.

Bicycle and Pedestrian Facilities

As stated previously, the proposed project would improve pedestrian and bicyclist access and circulation in northwestern Monterey County, generally around the cities of Del Rey Oaks, Marina, Monterey, and Seaside, as well as the CSUMB campus. Currently, the Trail alignment is not open to pedestrian or bicycle access, although some segments of the proposed alignment coincide with existing streets, which are currently open to active transportation modes. The proposed Trail would introduce a route dedicated to pedestrians and bicyclists, with some limited use for horseback travel. This route would provide connectivity to intersecting trails, such as the existing Coastal Rec Trail and the North Fremont Bicycle and Pedestrian Project, improving the overall trail network in the project area. The proposed project would also improve pedestrian access to and from the cities of Del Rey Oaks, Marina, Monterey, and Seaside, as well as the CSUMB campus. The Ryan Ranch segment of the Trail would provide an option for active transportation commutes to a large job center in the project area. The proposed alignment would intersect numerous streets in these cities, provide a direct connection to sidewalk and pedestrian networks, including existing bicycle lanes in some areas. The proposed Trail would also involve adding bike lanes to some existing streets, which would also make bicycle travel safer by providing a designated place for bicycles to travel in conjunction with vehicles.

In conjunction with the new Trail, the proposed project would add a variety of amenities for Trail users, such as rest areas, benches, and shade structures. Amenity areas would be located adjacent to the Trail in a four-foot wide area with compacted native soil. Trail amenities would be designed to blend into the landscape, primarily serving to provide areas where visitors can enjoy views without leaving the Trail. Amenity areas would include trash receptacles but would not include

restrooms or running water. These amenities would improve the quality of the user experience while using FORTAG.

By improving pedestrian and bicyclist connectivity and providing amenities for Trail users, the proposed project would be consistent with relevant general plan goals and policies applicable to the study area and project, as described above in **Section 4.14.2, Regulatory Setting**. Additionally, policies in the 2018 Monterey County RTP including improving safe, attractive and affordable access to work, school, goods and other key destinations by walking, bicycling and transit; and improving the quality of pedestrian and bicycle trips. By improving pedestrian and bicyclist connectivity and providing amenities for Trail users, the proposed project would be consistent with applicable 2018 Monterey County RTP policies for bicycle and pedestrian circulation. FORTAG is also a project directly identified in the 2018 Monterey County RTP projects list, as well as Draft Seaside 2040.

The proposed project would promote and facilitate a safe, travel route for pedestrian and bicycle modes, consistent with the goals and policies applicable to the project and study area. Because the project is consistent with applicable general plans and the 2018 Monterey County RTP pertaining to bicycle and pedestrian facilities, impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 2: Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Impact T-2 THE PROJECT WOULD NOT CONFLICT OR BE INCONSISTENT WITH CEQA GUIDELINES SECTION 15064.3, SUBDIVISION (B). IMPACTS WOULD BE LESS THAN SIGNIFICANT.

As described in **Section 2, Project Description**, the estimated number of Trail users would be between 1,000 and 3,000 daily. The Trail alignment is intended to provide direct bicycle and pedestrian access for most Trail users to and from residences, workplaces, schools, and hospitality bases in the project area. Therefore, it is assumed that many of the daily users of the Trail would either live or work along the Trail or would use active transportation to reach the Trail and then continue along the Trail to their destination, neither of which would require the use of vehicles. However, the Trail would connect many neighborhoods and employment centers, such as Ryan Ranch Business Park and the CSUMB campus, and traverse scenic areas of the Monterey Bay, making a potential destination for exercise, outdoor recreation, and sight seeing. These uses may induce vehicle trips as people travel from homes or hotels in the project area to Trail. As described under **Impact T-1**, although the proposed project may induce some new vehicle trips associated with people travelling to the Trail for recreational purposes, pursuant to guidance from the Governor's Office of Planning and Research (2018), pedestrian and bicycle facilities do not require analysis of induced VMT because they are unlikely to lead to a substantial or measureable increase in vehicle travel. Therefore, travel to and from the Trail would not generate substantial VMT. Additionally, it is reasonable to assume that some users would forego traveling to another trail or outdoor space in favor of the proposed Trail as the proposed Trail would traverse scenic open space areas east of the urbanized areas of the cities in the project area. Thus, compared to existing VMT in the region and project area, the proposed project would result in no substantial increases.

Accordingly, consistent with Section 15064.3 of the CEQA Guidelines, impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

Impact T-3 FORTAG WOULD NOT SUBSTANTIALLY INCREASE HAZARDS DUE TO GEOMETRIC DESIGN FEATURES OR INCOMPATIBLE USES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The proposed Trail alignment would cross public roadways in multiple locations. Approximately 28 of these crossings would consist of at-grade crossings. At-grade crossings would require pedestrians and cyclists to cross travel lanes of roadways. These crossings may lead to conflicts between Trail users and motorists, which could be a hazardous condition. For example, the Canyon Del Rey/SR 218 segment would include an at-grade crossing at Del Monte Boulevard near the boundary of the cities of Seaside and Monterey and a design option for an at-grade crossing at SR 218 in the City of Del Rey Oaks. Both of these roads are major collectors in the cities of Seaside, Monterey, and Del Rey Oaks, and they have relatively high traffic volumes near the proposed crossings: 24,800 average daily trips on SR 218 in the City of Del Rey Oaks (Caltrans 2019) and 26,488 average daily trips on Del Monte Boulevard (TAMC 2019). An at-grade crossing would require Trail users to cross the busy travel lanes of Del Monte Boulevard and SR 218, creating potentially hazardous safety issues. The at-grade crossing of Del Monte Boulevard would include a signalized crossing, and the signal would be synchronized with the City of Monterey's adaptive signal control system. The signalized crossing would reduce conflicts by preventing substantial traffic delays from occurring as Trail users cross the roadway.

Proposed at-grade crossings would require improvements and modifications, such as roadway and lane modifications; construction of medians, curb extensions, warning devices, and traffic control devices; and enhanced safety signing and striping. Signage on adjacent roadways and at Trail crossings would comply with the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (FHWA 2009). The placement of signage at Trail crossings would alert motorists and Trail users to the crossing, and provide guidance on which user group has the right-of-way and which should yield or stop at the crossing. Additionally, warning devices would alert users groups of the crossing and potential conflicts and hazards. The Trail would also include lighting as needed at road crossings. Lighting would illuminate the crossing and increase visibility, making it more likely for motorists to see Trail users crossing the roadway. Lighting would also increase awareness of the crossing during nighttime hours. These improvements and modifications would reduce the potential for hazardous conditions at at-grade crossings.

The Trail could additionally include a certain number of grade-separated crossings, including: undercrossings, overcrossings, and roundabouts, as shown in **Figure 2-11** in **Section 2, Project Description**. Specifically, the Northern Loop segment would include an overcrossing of Blanco Road, and the CSUMB North Loop segment would also include a new overcrossing of Imjin Road.

Undercrossings and roundabouts, including design options, are described in **Section 2, Project Description**.

Grade-separated crossings would not create the same potentially hazardous conditions that could be created from at-grade crossings because Trail users would be separated from motor traffic. Undercrossings and overcrossings would allow Trail users to either pass beneath the road surface or above the road surface, completely avoiding the need to directly travel across the roadway lanes and therefore avoiding any interaction with vehicles.

The proposed project does not include the construction of new parking areas or staging parking lots for Trail users. Therefore, there would be no potential safety hazards associated with such issues as sight distance from new driveways into and exiting from new parking lots onto roadways. However, existing parking areas adjacent to and near the Trail alignment would be used for the proposed Trail. Some of these parking areas are along roadway shoulders, which would place Trail users in close proximity to moving traffic as they park and prepare for walking or cycling on the Trail. The proposed project would include safety improvements at existing parking areas, such as fencing or other barriers between the Trail and existing parking areas. Additionally, these parking areas currently exist and therefore the project would not create new hazards associated with roadside parking.

FORTAG would include a Class III bicycle route on Angelus Way in the City of Del Rey Oaks. As a Class III bicycle route, bicycles would share the roadway with vehicles, which could create conflicts. However, the bicycle route would include sharrows and signage to reduce potential conflicts with residential driveways and vehicles travelling on Angelus Way. FORTAG would also include a Class I bicycle route parallel to Carlton Drive in the City of Del Rey Oaks. However, as a Class I bicycle route, cyclists and pedestrians would be separated from vehicle travel because the Trail would not be on the roadway. The Trail would cross driveways on Carlton Drive, but would include standard safety practices, such as striping, signage, and visibility triangles. These safety measures would reduce conflicts at driveway crossings.

The installation of signage and warning devices at crossings, installation of lighting at crossings, and construction of safety improvements at existing parking areas would reduce the potential for hazardous conflicts between Trail users and vehicles. Accordingly, impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 4: Would the project result in inadequate emergency access?
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Impact T-4 FORTAG WOULD NOT RESULT IN INADEQUATE EMERGENCY ACCESS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Except for approximately 2,000 feet of Trail, the entire approximately 28 miles of the proposed Trail would occur off existing roads. Therefore, the proposed project would not interfere with emergency vehicles operating and traveling on roads in the project area. Where the Trail would be located on

existing roads (including Beach Road in the City of Marina and Angelus Way in the City of Del Rey Oaks), striping and signage would be added to delineate between the Trail and the flow of traffic.

The majority of the Trail would be a 12-foot-wide paved path, with a two-foot-wide unpaved shoulder on both sides. For approximately 1.3 miles of the Trail's 28-mile length (4.6 percent), FORTAG would include an adjacent four- to eight-foot wide side path, separated from the paved path. This width would accommodate ambulances and emergency response vehicles in the event of an emergency, such as an injury or fire. The width of the Trail would be reduced to eight feet at the Frog Pond Wetland Preserve in the City of Del Rey Oaks. However, this segment of the Trail would be relatively short and could be accessed from either end where the Trail width would be wider, at approximately 16 feet. Additionally, there is an existing dirt trail at Frog Pond Wetland Preserve, over which the proposed Trail would be constructed. Compared to the existing trail in this area, the proposed Trail would be wider and have a compacted surface, which would better accommodate emergency responders. Within the National Monument Loop segment, The Trail would follow and essentially replace portions of the existing Blue Line Road. Blue Line Road forms the eastern boundary of the Fort Ord National Monument, and is currently used for emergency access. FORTAG would improve Blue Line Road with a paved surface in some areas, and would be designed to allow continued access by maintenance and emergency vehicles. Accordingly, the proposed project would not result in inadequate emergency access. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

4.14.5 Cumulative Impact Analysis

The cumulative impacts assessment area for transportation includes Monterey County, Santa Cruz County, and San Benito county (the AMBAG region). This is an appropriate assessment area for transportation because most regional traffic originates from and has destinations within this area. While some vehicle trips do originate and end outside of the region, these trips are generally on freeways and do not contribute to trips on local collectors, such as those that FORTAG would intersect. The cumulative impacts analysis for transportation uses the projections approach, as described in **Section 3, Environmental Setting**. The projections approach is appropriate because buildout of the general plans and other applicable plans described in **Section 3** would facilitate population growth in the region, which generates new trips on the region's transportation system.

The AMBAG 2040 MTP/SCS is consistent with the general plans in the cumulative assessment area. The 2040 MTP/SCS captures the growth that is envisioned in these plans and the associated population that would be facilitated by this growth through 2040. As described in the Final EIR for the 2040 MTP/SCS (AMBAG 2018), daily VMT in the AMBAG region (i.e., cumulative assessment area) is partially due to commuters travelling to and from employment in the adjoining counties, particularly Santa Clara County and San Mateo County in the San Francisco Bay Area. The 2040 MTP/SCS is designed to promote economic growth and employment in the AMBAG region, while also providing the proper balance between jobs and housing within the region. With more employment in the AMBAG region, fewer residents of the region may commute to adjoining counties for employment. Thus, the increased daily VMT in 2040 resulting from the 2040 MTP/SCS

may not necessarily be from commuter trips to and from employment destinations outside of the AMBAG region, and the 2040 MTP/SCS may not increase daily VMT on roadways in adjoining counties. Nonetheless, as described in the Final EIR, the VMT in the cumulative assessment area would increase the baseline 2015 conditions for daily VMT by 3,851,598 VMT, which is an approximately 19.6 percent increase over existing conditions. An approximately 19.6 percent increase in VMT in the region would be a significant cumulative impact and could also conflict with transportation plans and programs.

FORTAG is listed as a project in the 2040 MTP/SCS, and therefore was included in the cumulative VMT analysis through 2040. As described above, Trail user may choose to drive to FORTAG, which would generate VMT. For example, people using the equestrian segments may drive to the Trail in order to tow horse trailers and transport horses to the Trail. The VMT resulting from vehicle trips to the Trail would be offset by the number of people who would use the Trail for bicycle commuting instead of vehicle commutes. As described throughout this section, the Trail would connect places of employment, residential neighborhoods, CSUMB campus, and other points and places of interest in the region, making it an ideal option for commuting in and around the project area. The Ryan Ranch segment would provide a connection to a major jobs center near the cities of Seaside, Monterey, and Del Rey Oaks. Therefore, FORTAG would not cumulatively contribute to the 19.6 percent increase in VMT anticipated in the cumulative impacts assessment area through 2040. Further, because FORTAG would provide a pedestrian and bicycle connection through some of the growth projected in the region, such as growth in the cities of Seaside and Marina, it would potentially decrease the projected VMT in the AMBAG region.

4.15 Tribal Cultural Resources

This section includes an analysis of potential impacts to tribal cultural resources that could occur from the construction of the proposed FORTAG project based on the results of consultation with local California Native Americans. This work is conducted pursuant to Assembly Bill (AB) 52, which serves to increase the involvement of native peoples in CEQA analytical work.

4.15.1 Existing Conditions

a. Regional Tribal Cultural Resources

FORTAG is located in a region historically occupied by the Ohlone (named Costanoan, for “coast,” by the Spanish) (Kroeber 1925). The term Costanoan is a modern linguistic designation for populations that spoke one of eight related languages in the Bay Area region. These languages are part of the hypothesized Penutian language family. Linguistic research has grouped the Ohlone languages into four branches: 1) Karkin (far northern, located in the Carquinez Strait area); 2) Chochenyo, Ramaytush, Tamyen, and Awaswas (the northern branch); 3) Chalon (far southern branch); and 4) Rumsen and Mutsun (the southern branch) (Mithun 2001).

The pre-contact Ohlone were semi-sedentary, with a settlement system characterized by base camps of tule reed houses and seasonal specialized camps (Skowronek 1998). Villages were divided into small polities, each of which was governed by a chief responsible for settling disputes, acting as a war leader (general) during times of conflict, and supervising economic and ceremonial activities (Kroeber 1925, Skowronek 1998). Social organization appeared flexible to ethnographers and any sort of social hierarchy was not apparent to mission priests.

The Ohlone were organized into numerous tribelets. Each tribelet’s territory contained a main village and smaller satellite villages. The villages were typically situated along a river or stream for easy access to water (Levy 1978). The tribelet’s functioned as political units that were structured by similarities in language and ethnicity, each holding claim to a designated portion of territory. Milliken (1995) was able to conduct a detailed examination of mission records, marriage patterns, and dialect variation seen in personal names and delineated 43 separate political entities (tribelets) in the San Francisco Bay, Santa Cruz, and inland area, with another six or so tribelets in the south Monterey Bay and Carmel Valley region. In general, Ohlone territory extended between the Carquinez Strait and San Pablo Bay on the north, southward along the coast beyond Monterey Bay to Carmel Valley, and inland to the Coast Range (Levy 1978). Neighboring groups included the Coast Miwok to the north, the Miwok and Northern Valley Yokuts to the east, and the Salinan and Esselen to the south.

Ohlone subsistence was based on hunting, gathering, and fishing; mussels were a vital food resource (Kroeber 1925, Skowronek 1998). Sea mammals were also important; sea lions and seals were hunted and beached whales were exploited. Like in the rest of California, the acorn was a key staple and was prepared by leaching acorn meal both in openwork baskets and in holes dug into the sand. The Ohlone also practiced controlled burning to facilitate plant growth.

Ohlone groups came into contact with European culture at the beginning of Spain’s land exploration and settlement of Alta California in 1769. During the late 1700s and early 1800s, traditional lifeways were drastically altered when the Spanish placed their capital at Monterey, built forts at Monterey and San Francisco, and established seven Franciscan missions to convert native peoples to Christianity and the European way of life. During this time, large-scale epidemics swept through the

mission population and remaining Ohlone villages (Milliken 1995). It is estimated that the combined Ohlone population decreased from a pre-contact total of 10,000 down to 2,000 by the end of the mission period in 1834 (Levy 1978). During the mission period, the dwindling Ohlone population also intermarried with other interior tribes at the missions, mixing their cultural identities.

During the late 1800s, several multi-ethnic Native American communities began to appear in Ohlone territory. The best known of these were located in Pleasanton, Monterey, and San Juan Bautista. However, even these groups continued to shrink as young people married into other groups and moved away. Estimates of the total remaining population of people with recognizable Ohlone descent were fewer than 300 in 1973 (Levy 1978).

Descendants of the Ohlone united in 1971 to form a corporate entity known as the Ohlone Indian Tribe. This entity was successful in obtaining title to the Ohlone Indian Cemetery where their ancestors who died at Mission San José are buried (Levy 1978). Since that time, other descendants of Ohlone tribelets, notably the Rumsen and Mutsun groups, have organized political and cultural heritage organizations that are active locally and statewide. All are concerned with revitalizing aspects of their culture, learning the language through notes collected by anthropologist John Harrington, and preserving the natural resources that played a vital role in traditional culture.

In addition, some Ohlone groups (namely the Amah-Mutsun Band of Mission Indians, Costanoan Band of Carmel Mission Indians, Costanoan Rumsen Carmel Tribe, the Indian Canyon Mutsun Band of Costanoan, the Muwekma Ohlone Tribe, and the Ohlone/Costanoan-Esselen Nation) are seeking federal recognition of their tribe, petitioning the Bureau of Indian Affairs with reconstructed tribal histories and genealogies.

As discussed in **Section 4.5**, *Cultural Resources*, a records search of the California Historical Resources Information System at the Northwest Information Center at Sonoma State University as well as a field pedestrian survey were conducted for FORTAG (Haas et al. 2019). One Native American habitation site was recorded within a 0.5-mile radius of FORTAG and a second habitation site was recorded as being located somewhere on former Fort Ord, thus possibly in the project corridor. Two isolated artifacts of Native American origin were identified during the pedestrian survey. The Monterey Bay Area, in general, is considered sensitive for archaeological resources due to Native American Villages in the region that were associated with the resource-rich bay.

b. Assembly Bill 52 Consultation

As described in **Section 3.15.2**, *Regulatory Setting*, AB 52 of 2014 requires consultation with Native American tribes. TAMC prepared and sent AB 52 notification letters to tribes listed with the Native American Heritage Commission (NAHC) on June 25, 2019. Letters were received by contacts between July 1 and July 5, 2019. As of the date of this Draft, TAMC has not received any requests for consultation.

4.15.2 Regulatory Setting

a. Assembly Bill 52 of 2014

AB 52 expanded CEQA by defining a new resource category, “tribal cultural resources.” AB 52 establishes that “a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment” (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when

feasible (PRC Section 21084.3). PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe,” and meets either of the following criteria:

- a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)
- b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe

In recognition of California Native American tribal sovereignty and the unique relationship of California local governments and public agencies with California Native American tribal governments and with respect to the interests and roles of project proponents, it is the intent AB 52 to accomplish all of the following:

- (1) Recognize that California Native American prehistoric, historic, archaeological, cultural, and sacred places are essential elements in tribal cultural traditions, heritages, and identities
- (2) Establish a new category of resources in CEQA called “tribal cultural resources” that considers the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigation
- (3) Establish examples of mitigation measures for tribal cultural resources that uphold the existing mitigation preference for historical and archaeological resources of preservation in place, if feasible
- (4) Recognize that California Native American tribes may have expertise with regard to their tribal history and practices, which concern the tribal cultural resources with which they are traditionally and culturally affiliated (Because CEQA calls for a sufficient degree of analysis, tribal knowledge about the land and tribal cultural resources at issue should be included in environmental assessments for projects that may have a significant impact on those resources)
- (5) In recognition of their governmental status, establish a meaningful consultation process between California Native American tribal governments and lead agencies, respecting the interests and roles of all California Native American tribes and project proponents, and the level of required confidentiality concerning tribal cultural resources, early in the CEQA environmental review process, so that tribal cultural resources can be identified, and culturally appropriate mitigation and mitigation monitoring programs can be considered by the decision-making body of the lead agency
- (6) Recognize the unique history of California Native American tribes and uphold existing rights of all California Native American tribes to participate in, and contribute their knowledge to, the environmental review process pursuant to CEQA
- (7) Ensure that local and tribal governments, public agencies, and project proponents have information available, early in CEQA environmental review process, for purposes of identifying and addressing potential adverse impacts to tribal cultural resources and to reduce the potential for delay and conflicts in the environmental review process
- (8) Enable California Native American tribes to manage and accept conveyances of, and act as caretakers of, tribal cultural resources

- (9) Establish that a substantial adverse change to a tribal cultural resource has a significant effect on the environment

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

4.15.3 Methodology and Significance Thresholds

Methodology

This section describes the potential environmental impacts of the proposed FORTAG project and all FORTAG design options relevant to tribal cultural resources. Analysis of tribal cultural resources included a review of the ethnographic and archaeological setting of the project corridor, as well as a consideration of the results of AB 52 consultation between TAMC and local Native Americans.

Significance Threshold

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

1. 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. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
 - b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe

4.15.4 Project Impact Analysis

- Threshold 1:** Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?
- Threshold 2:** Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is 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?

Impact TCR-1 THE PROJECT MAY CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A PREVIOUSLY UNKNOWN OR UNIDENTIFIED TRIBAL CULTURAL RESOURCE. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

As of the date of this Draft EIR, no specific tribal cultural resources have been identified in the FORTAG corridor or study area. However, during ground disturbance activity prior to project construction, there is a potential to encounter previously undiscovered cultural resources of Native American origin that could be considered tribal cultural resources. Ground disturbance activities during construction include excavation of potential undercrossings, clearing and grubbing, grading, roadway modifications, and installation of other trail features. Once constructed and in use, ground disturbing activities and the potential for inadvertent discovery are not anticipated.

This impact of FORTAG would be less than significant with mitigation. Implementation of **Mitigation Measure TCR-1** below would reduce the impact on tribal cultural resources by requiring documentation of known tribal cultural sites, monitoring for unknown sites during construction, and continued consultation with local Native Americans if resources of Native American origin are unearthed during construction.

Mitigation Measures

TCR-1 Native American Monitoring

A Native American monitor shall be retained and remain present during ground disturbing activities for each Trail segment within previously undisturbed native soils, including any archaeological excavation resulting from the implementation of **Mitigation Measure CUL-2** in **Section 4.5, Cultural Resources**.

In the event that cultural resources of Native American origin are identified during construction, the implementing entity shall consult with a qualified archaeologist and begin or continue Native American consultation procedures. If the implementing entity, in consultation with local Native Americans, determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with Native American groups. The mitigation plan may include, but would not be limited to: avoidance, capping in place, excavation and removal of the resource, interpretive displays, sensitive area signage, or other mutually agreed upon measures.

Significance After Mitigation

Impacts would be less than significant with mitigation.

4.15.5 Cumulative Impacts

Tribal cultural resources have the potential to extend across project sites; therefore, the appropriate geographic scope for cumulative tribal cultural resources impacts includes development projects adjacent to the project as well as within the surrounding region. Projects listed in **Table 3-1** in **Section 3**, *Environmental Setting*, were considered during the analysis of cumulative impacts.

The proposed project, in conjunction with other nearby past, present, and reasonably foreseeable probable future projects in the region as listed in **Table 3-1**, would have the potential to adversely impact tribal cultural resources. Cumulative development in the region would continue to disturb areas with the potential to contain tribal cultural resources. Cumulative projects are reviewed separately by the appropriate jurisdiction and undergo environmental review when it is determined that the potential for significant impacts exists. In the event that future cumulative projects would result in impacts to known or unknown tribal cultural resources, impacts to such resources would be addressed on a case-by-case basis, and would likely be subject to mitigation measures similar to those imposed for this project as a result of the CEQA process. Cumulative impacts to tribal cultural resources would therefore be potentially significant but mitigable.

As described under **Impact TCR-1**, the proposed project would result in a significant impact without mitigation to unknown tribal cultural resources. **Mitigation Measure TCR-1** would reduce project-level impacts to less than significant. Therefore, the project's contribution to cumulative impacts to tribal cultural resources would not be cumulatively considerable.

4.16 Utilities and Service Systems

This section evaluates potential project impacts to wastewater, water, stormwater, and solid waste infrastructure and services. Whereas wastewater conveyance and water supply are evaluated fully in this section, **Section 4.10, Hydrology and Water Quality**, provides a more detailed analysis of runoff patterns and surface water quality.

4.16.1 Existing Conditions

a. Water Supply

A number of potable water providers serve the areas FORTAG would traverse. The following providers serve customers in or near the study area:

- Monterey County: California American Water Company – Monterey District (CalAm); California Water Service Company Salinas District
- Monterey: CalAm
- Del Rey Oaks: CalAm
- Seaside: CalAm, Seaside Municipal Water System, and Marina Coast Water District
- Marina: Marina Coast Water District

The providers listed above own and operate wells, tanks, pipelines, and other water infrastructure throughout Monterey County. **Table 4.16-1** shows the water supply sources for the providers listed above.

Table 4.16-1 Regional Water Supply Providers and Sources

Water Supply Sources	
California American Water Company – Monterey District	Carmel River Seaside Area Subbasin Salinas Valley Groundwater Basin Recycled Water Desalinated Water
California Water Service Company	Salinas Valley Groundwater Basin
Seaside Municipal Water System	Salinas Valley Groundwater Basin
Marina Coast Water District	Salinas Valley Groundwater Basin Recycled Water Desalinated Water

Note: Water supply sources include all those identified in the 2015 Urban Water Management Plans as of 2020.
Sources: CalAm 2016, California Water Service Company 2016, Marina Coast Water District 2016

As shown in **Table 4.16-1**, water supplies in the project area are sourced from the Salinas Valley Groundwater Basin, the Carmel River, recycled municipal supplies, and desalinated water. The Salinas Valley Groundwater Basin and its sub-basins are characterized in detail in **Section 4.10, Hydrology and Water Quality**.

In 1995, The State Water Resources Control Board (SWRCB) issued Cease and Desist Order 95-10, requiring a reduction in pumping from the Carmel River. In 2016, Order 2016-16 extended the time period for withdrawals from the Carmel River through 2021, when new water supply projects are expected to be in operation. The Monterey Peninsula Water Supply Project, proposed by CalAm, includes a desalination plant and a groundwater replenishment project to address the Monterey Peninsula region’s long-term water supply needs (California Public Utilities Commission and Monterey Bay National Marine Sanctuary 2018). Additionally, Monterey One Water (M1W), the regional wastewater service provider, operates a water recycling facility that provides irrigation water for Salinas Valley crops (M1W 2017a).

b. Wastewater

Wastewater service throughout the study area is provided by M1W, which serves a population of approximately 250,000 people and treats 18.5 million gallons per day. M1W operates its Regional Treatment Plant two miles north of Marina (M1W 2017b). A design option of FORTAG’s Northern Marina Segment would run adjacent to the south and west sides of the Regional Treatment Facility.

c. Solid Waste

FORTAG would be served by the Monterey Regional Waste Management District (MRWMD). The service area for MRWMD includes the County land and each city that the proposed alignment traverses (MRWMD 2014). MRWMD operates facilities on its 475-acre property, two miles north of Marina, sharing a site with the M1W Regional Treatment Facility. The property includes the 315-acre Monterey Peninsula Landfill (MPL) and a 126-acre buffer area. The FORTAG Northern Marina segment design option that runs adjacent to the site would be approximately 1,200 feet, at the closest point, to the landfill area.

The facility is permitted to receive a maximum of 3,500 tons of waste per day. The current daily intake is approximately 1,300 tons per day, with a per person rate of six pounds daily (MRWMD 2016). As shown in **Table 4.16-2**, the remaining daily intake capacity at the facility is 2,200 tons. MPL is not projected to reach capacity until the year 2115.

Table 4.16-2 MPL Maximum Throughput and Remaining Capacity

Average Daily Throughput	Maximum Daily Permitted Throughput	Remaining Daily Intake Capacity
1,300 tons	3,500 tons	2,200 tons

Source: MRWMD 2016

d. Electricity Infrastructure

The Pacific Gas and Electric Company (PG&E) provides electricity service throughout the study area (PG&E 2014). Additionally, in spring 2018, customers in Monterey, San Benito, and Santa Cruz counties were automatically enrolled with the Monterey Bay Community Power (MBCP) community energy choice model. MBCP is responsible for procurement of clean-sourced power, while PG&E retains its role in maintaining the distribution system and customer service (MBCP 2019).

Some portions of the Trail would run along existing electric infrastructure, while other portions would be constructed in less developed areas where such infrastructure is absent.

4.16.2 Regulatory Setting

a. State and Regional

Water

Drinking water quality is regulated by the California Department of Public Health (CDPH), the California State Water Resources Control Board (SWRCB), and the nine RWQCBs. The project corridor is within the boundaries of the Central Coast RWQCB. The California Code of Regulations (CCR), Title 22 (State Drinking Water Standards) is the primary body of state legislation providing water system standards, including those for water supply, storage capacity, and water quality. Other considerations include the Porter-Cologne Water Quality Control Act, the Safe Drinking Water Act, and the SWRCB Non-degradation Policy.

Senate Bill (SB) 610 (2002) amended the California Water Code to require detailed analysis of water supply availability of certain types of development projects. The primary purpose of SB 610 is to improve the linkage between water and land use planning by ensuring greater communication between water providers and local planning agencies, and ensuring that land use decisions for certain types of development projects are fully informed as to whether sufficient water supplies are available to meet project demands. SB 610 requires the preparation of a Water Supply Assessment (WSA) for a project that is subject to CEQA and involves any of the following:

- Residential development of 500 or more dwelling units
- Shopping centers or businesses employing more than 1,000 people or having more than 500,000 square feet of floor space
- Commercial office building employing more than 1,000 people or having more than 250,000 square feet of floor space
- Hotel, motel, or both, having more than 500 rooms
- Industrial, manufacturing, or processing facility, or industrial park planned to house more than 1,000 people, occupying more than 40 acres of land, or having more than 650,000 square feet of floor space
- Mixed-use project including one or more of the projects specified in Water Code Section 10910
- Any project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project

As the project does not fall under any of the above screening criteria, the requirements under SB 610 do not apply.

Assembly Bill (AB) 1881, the Model Water Efficient Landscape Ordinance (MWELo), required cities and counties to adopt landscape water conservation ordinances by January 31, 2010, or to adopt a different ordinance that is at least as effective in conserving water as the ordinance. As the regional water manager, Monterey Peninsula Water Management District reports region-wide compliance with state requirements to the California Department of Water Resources. In September 2016, MPWMD codified its Rule 142.1, which provides landscape standards to minimize water use, eliminate water waste, and reduce low water landscape plantings, design, and irrigation methods.

Rule 142.1 is intended to be at least as effective as the State MWEL. However, as FORTAG does not include landscaping, the AB 1881 and Rule 142.1 would not apply.

Wastewater

RWQCBs set the specific requirements for community and individual wastewater treatment and disposal and reuse facilities through the issuance of waste discharge requirements (WDRs), required for wastewater treatment facilities under the California Water Code Section 13260. Requirements for disposal are set to protect present and potential beneficial uses of the water that receive the effluent. CDPH sets specific requirements for treated effluent reuse, or recycled water, through Title 22 of the CCR. These requirements are primarily set to protect public health.

CCR, Title 22, Division 4, Chapter 3, Sections 60301 through 60355 are used to regulate recycled wastewater and are administered jointly by CDPH and the RWQCBs. Title 22 contains effluent requirements for four levels of wastewater treatment, from non-disinfected secondary recycled water to disinfected tertiary recycled water. Higher levels of treatment have higher effluent standards, allowing for a greater number of uses under Title 22, including irrigation of freeway landscaping, pasture for milk animals, parks and playgrounds, and vineyards and orchards for disinfected tertiary recycled water.

Solid Waste

The California Integrated Waste Management Act of 1989 (AB 939) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000 through source reduction, recycling, and composting. To help achieve this, the Act required that each city and county prepare and submit a Source Reduction and Recycling Element. AB 939 also established the goal for all California counties to provide at least 15 years of on-going landfill capacity.

In 2007, SB 1016 subsequently amended AB 939 such that it now entails the 50 percent diversion requirement to be calculated in a per capita disposal rate equivalent. CalRecycle sets a target per capita disposal rate for each jurisdiction, and each jurisdiction must submit an annual report to CalRecycle with an update of its progress in implementing diversion programs and its current per capita disposal rate. In 2011, AB 341 was passed, setting a state policy goal whereby no less than 75 percent of solid waste generated be source reduced, recycled, or composted by 2020.

In 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24, known as "CalGreen") was adopted as part of the California Building Standards Code. Section 5.408, *Construction Waste Reduction Disposal and Recycling*, mandates that in the absence of a more stringent local ordinance, a minimum of 65 percent of non-hazardous construction and demolition debris must be recycled or salvaged. Section 4.408 also requires that a project applicant submits a construction waste management plan to the local jurisdiction and utilize a waste management company that can provide verifiable documentation that a sufficient percentage of construction and demolition waste was diverted from landfill deposit.

MRWMD opened its Materials Recovery Facility in 2018, to support regional recycling efforts and help achieve the State goal of 75 percent recycling. The Materials Recovery Facility includes construction and demolition processing capacity to allow for compliance with the CalGreen 65 percent diversion requirement for construction and demolition waste.

4.16.3 Methodology and Significance Thresholds

Methodology

This section describes the potential environmental impacts of the proposed FORTAG project and all FORTAG design options relevant to utilities and service systems. Assessment of impacts to utilities and service systems is based on review of site information, conditions, and proposed uses; and state, County, and City information regarding the capacity and features of utility infrastructure, including potable water, wastewater, and solid waste infrastructure and facility capacity.

Significance Thresholds

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

1. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects
2. Result in insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years
3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments
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. Not comply with federal, state, and local statutes and regulations related to solid waste

Conflicts with hazardous material pipelines, power transmission lines, and telecommunication lines are not addressed in the significance thresholds above. Impacts related to these types of utility conflicts are addressed in **Section 4.9, Hazards and Hazardous Materials**. Potential impacts to water quality are addressed in **Section 4.10, Hydrology and Water Quality**.

4.16.4 Project Impact Analysis

Threshold 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?
Threshold 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?
Threshold 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?

Impact UTIL-1 THE PROJECT WOULD NOT REQUIRE OR RESULT IN RELOCATION OR CONSTRUCTION OF NEW OR EXPANDED WATER, WASTEWATER TREATMENT, STORMWATER DRAINAGE, ELECTRIC POWER, NATURAL GAS, OR TELECOMMUNICATION FACILITIES, AND WOULD NOT GENERATE WATER OR WASTEWATER TREATMENT DEMAND IN EXCESS OF EXISTING SUPPLIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Water Supply

FORTAG would require trucked water supplies during project construction activities such as dust suppression watering, but would not introduce a new long-term operational water demand.

During the construction period, water would be required for activities including dust suppression and vegetation planting. In compliance with Monterey Bay Air Resources District's Rule 402, the project contractor would water active construction areas as needed based on the activity and soil/wind exposure to suppress fugitive dust and protect air quality. In addition, the project would replace native vegetative ground cover in disturbed areas. Irrigation water may be applied on a short-term basis during planting. Concrete asphalt used for paving would be purchased from a local purveyor. Water would not be added on-site.

FORTAG would not generate operational water demand. The project would not include bathrooms, water fountains, landscape watering, or other water supply infrastructure.

The project's construction water demands would be met via trucked water supplies from local water retailers. As noted in **Section 4.16.1, Existing Conditions**, water supply in Monterey County is strained, with major projects underway and proposed to address the region's long-term demand. Because construction activities would move along the FORTAG corridor and would traverse the service areas of multiple water suppliers, different segments of construction would receive trucked water from different local water retailers, which may include CalAm, California Water Service Company, Seaside Municipal Water System, and/or Marina Coast Water District. The supplies for these water retailers are sourced from the underlying Salinas Valley Groundwater Basin, the Carmel River, recycled municipal supplies, and desalinated water. The region is currently investing in additional water supply projects such as the Monterey Peninsula Water Supply Project to expand its water resources.

Water demand during construction activities would be temporary and limited to the construction period. The majority of demand would result from dust suppression spraying, which would only be required for exposed soil during certain construction activities and wind exposure conditions.

Construction water would be purchased from a local water retailer and trucked to the project site. Water demand for construction would be split between the different water suppliers serving the project area, thus limiting the demand on any one retailer or supply source. After construction is complete, the project would not generate water demand. Therefore, the project would not require or result in the relocation or construction of new or expanded water facilities and would not generate water demand in excess of existing water supplies.

Wastewater Treatment

FORTAG does not include restrooms or potable water fixtures that would generate wastewater treatment demand. There would be no demand on wastewater treatment facilities. Therefore, the project would not require or result in the relocation or construction of new or expanded wastewater treatment facilities, nor result in a determination by the wastewater treatment provider that it has inadequate capacity to serve demand.

Stormwater Drainage

FORTAG would alter stormwater drainage as it relates to surface water runoff from the paved Trail. The project does not include any new paved parking areas, structures, or other large, concentrated impervious surfaces. The Trail would result in a substantial amount of new impervious surface, but the effect would be distributed throughout its 28-mile length. The impervious surface would be a maximum of 12 paved feet in width, with a two-foot-wide unpaved shoulder on both sides. In addition, for approximately 1.3 miles the Trail would also include a side path comprised of four to eight feet of compacted native soil. Assuming a maximum of 12 feet of paved width for the entire 28-mile Trail, impervious surfaces would total 40.7 acres. This calculation is conservative because some portions of the Trail would be narrower than 12 feet, and the Trail through the Frog Pond Wetland Preserve in Del Rey Oaks would be a permeable surface.

In general, stormwater would flow from the paved Trail to the adjacent pervious areas. Where the Trail would be on-road or along existing paved areas, the existing stormwater drainage infrastructure would accommodate the Trail.

The existing conditions and Trail design are adequate to accommodate the addition of the proposed linear impervious surface area added by the project. The approximately 40 acres of added impervious surface area would be distributed linearly through the Trail's 28-mile length, thus minimizing runoff effects at any individual location. Therefore, no new or expanded stormwater drainage facilities are required and this impact would be less than significant. For additional discussion regarding impervious surfaces and drainage, refer to **Impact HYD-3** and **Impact HYD-4** in **Section 4.10, Hydrology and Water Quality**.

Electric Power

FORTAG would not require any new or expanded electric power infrastructure. All lighting would be solar-powered, and no other electric components are proposed. Any electric-powered construction equipment would be powered by a generator or by existing available power lines and connections, and would not amount to a substantial demand on the existing energy supply. This impact would be less than significant.

Natural Gas and Telecommunication Facilities

FORTAG does not include natural gas infrastructure or telecommunication facilities. A small amount of natural gas may be used to power some construction equipment, but this would not require new gas lines or infrastructure and would not represent more than an incremental increase in regional demand for natural gas. Impacts related to natural gas and telecommunication facilities would be less than significant.

Agricultural Utilities

As described in **Section 4.2, Agriculture and Forestry Resources**, Trail construction could require permanent relocation of farm utilities in portions of the Northern Marina segment. This impact could occur along the limited portion of the Trail that runs alongside agricultural land uses.

Mitigation Measure AG-4(a) requires that the implementing entity covers the cost of relocating any agricultural utilities, such as irrigation system components or power lines, that are removed due to Trail construction. This would occur only along the portion of the Trail that runs alongside agricultural land use, and would not represent a net increase in utilities infrastructure. Any ground disturbance required for replacement of utilities would be performed in accordance with the standards and mitigation measures established for the project. Therefore, impacts resulting in relocation of agricultural utilities would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

This impact would be less than significant.

Threshold 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?

Threshold 5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Impact UTIL-2 THE PROJECT WOULD NOT GENERATE SOLID WASTE IN EXCESS OF LOCAL LANDFILL CAPACITY, AND WOULD COMPLY WITH APPLICABLE REGULATIONS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

FORTAG would generate construction waste that would be disposed of at the MPL. The project would also generate solid waste during Trail operation, through the use of trash/recycling receptacles located throughout the proposed alignment, as well as littler cleanup. As noted in **Section 4.16.1, Existing Conditions**, MPL has a remaining capacity of 2,200 tons per day and is not expected to reach full capacity until the year 2115.

Solid waste generation during FORTAG's construction phase is estimated at a total of 11.56 tons, based on the project's CalEEmod output (refer to **Appendix D**). Operational solid waste estimates are based on a maximum of 40 trash/recycling receptacles that may be provided along the Trail (assuming that every amenity area includes a trash/recycling receptacle). It is estimated that each receptacle would hold 40 pounds of waste and would be emptied periodically as necessary. This

creates a conservative estimate of 3,200 pounds of waste generated per week (40 receptacles x 40 pounds x two weeks), or 166,400 pounds per annually.

As shown in **Table 4.16-3**, maximum daily solid waste generated by FORTAG would be 21.1 pounds during construction, assuming a three year construction schedule, and 455.9 pounds during operation (for a maximum of 477 combined). As described in **Section 4.16.2, Regulatory Setting**, a 65 percent recycling rate is required for construction waste, and a 75 percent diversion rate is required for other solid waste. After applying these diversion rates, a total maximum of 121.3 pounds would be sent to a landfill. This equates to less than one hundredth of one percent of the remaining daily capacity at MPL.

Table 4.16-3 FORTAG Estimated Solid Waste Generation

Scenario	Estimated Waste Generation	Total Daily Waste Generation ¹	Total Daily Waste Sent to Landfill ²	Percent of Remaining Allowable Daily Throughput ³
Construction (2020-2022)	11.56 tons (total)	.01 tons/21.1 pounds	7.38	<0.01%
Operational (starting 2021)	166,400 pounds (annually)	455.9 pounds	113.9	<0.01%

¹ Construction waste is generated over a total of 36 months. Daily waste generation for construction is estimated by dividing total waste generation by 3 (years) and then by 365 (days). Operational waste generation is an annual estimate, with daily waste generation derived by dividing total waste generation by 365.

² Total daily waste sent to a landfill is 35% of construction waste, and 25% of other waste, based on diversion rates.

³ MPL’s average daily refuse intake is 1,300 tons. The remaining allowable daily throughput at MPL is 2,200 tons.

The proposed project would be served by a landfill that is operating in compliance with applicable regulations and with sufficient permitted capacity to accommodate project demands. Impacts related to solid waste would be less than significant.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

This impact would be less than significant.

4.16.5 Cumulative Impact Analysis

Because public utilities involve widespread distribution of centralized resource supplies, such as electricity and potable water, the geographic scope for cumulative analysis of utilities includes the greater Monterey Peninsula region in which the FORTAG study area is situated. As shown in **Table 3-1, Cumulative Projects List**, in **Section 3, Environmental Setting**, numerous development projects are anticipated in the vicinity of the FORTAG study area. Projects with the potential to substantially impact public utilities include the Campus Town Specific Plan in the City of Seaside, with up to 1,485 housing units and commercial and office uses, and the East Garrison project in Monterey County, including 1,470 residential units.

Cumulative development in this area would increase demand on wastewater service, natural gas, telecommunication facilities, and electric power would be substantial, due to the number and scale of proposed projects. New or expanded facilities, such as stormwater drainage facilities or natural

gas lines, could be required to accommodate these projects. These needs would be assessed on a project-by-project basis, and the environmental impacts of utility expansion analyzed under CEQA where appropriate. As described above under **Impact UTIL 1**, the project would not generate wastewater, or result in a substantial or permanent demand on natural gas, telecommunication facilities, or electric power. FORTAG's impact on regional demand for these utilities would be incremental, and thus would not be cumulatively considerable.

As noted under **Impact UTIL-1**, MPL has a substantial amount of available daily capacity, and is not expected to reach full capacity until the year 2115. Therefore, cumulative impacts to solid waste service in the area served by MRWMD would be less than significant. FORTAG's contribution to solid waste generation impacts would be incremental, as described above, and would not be cumulatively considerable.

FORTAG spans multiple jurisdictions through a region with historic and current water supply challenges. The projects listed in **Table 3-1**, considered in combination, could exceed available supplies, resulting in a significant water supply impact. However, as described in **Section 4.16.1, Existing Conditions**, several water supply projects are active or proposed to help the region's water supply meet projected demand. As described under **Impact UTIL-1**, the project would not include restrooms or other water-demanding infrastructure. Water demand would be limited to water used for construction activities and some initial watering of revegetated areas. This demand would be temporary and minimal, representing only a short-term incremental impact on water supplies. Therefore, the project's contribution to this impact would not be cumulatively considerable.

4.17 Wildfire

The analysis in this section addresses the potential for the FORTAG project to exacerbate wildfire risks.

4.17.1 Existing Conditions

a. Overview of Wildfire

A wildfire is an uncontrolled fire in an area of combustible vegetation that is generally extensive in size. Wildfires differ from other fires in that they take place outdoors in areas of grassland, woodlands, brushland, scrubland, peatland, and other wooded areas that act as a source of fuel, or combustible material. Buildings may be affected if a wildfire spreads to adjacent communities. The primary factors that increase an area's susceptibility to wildfire include slope and topography, vegetation type and condition, and weather and atmospheric conditions. These factors, as they exist and occur relative to the project corridor, are described below.

The indirect effects of wildland fires can be catastrophic. California is projected to experience an increase in wildfire frequency statewide between 11 percent under a lower-range warming scenario and 55 percent under a medium-range warming scenario (City of Seaside 2019a). In addition to stripping the land of vegetation and destroying forest resources, large, intense fires can harm the soil, waterways, urban structures, and the land itself. Soil exposed to intense heat may lose its capability to absorb moisture and support life. Exposed soils erode quickly and enhance siltation of rivers and streams, thereby enhancing flood potential, harming aquatic life, and degrading water quality. Lands stripped of vegetation are also subject to increased debris flow hazards (Monterey County 2015).

Since 1999, Monterey County has experienced 15 large (300-acre or greater) wildland fires, not including the 25,000 acres burned annually from wildland fires in Los Padres National Forest. Most recently, the 2016 Soberanes Fire, which started as an illegal campfire in Garrapata State Park in Monterey County, burned a total of 121,050 acres (Monterey County Office of Emergency Services 2019). The common causes of wildland fires in California include arson and negligence, although in recent years, overhead power lines have been identified as another common source of wildfires. The Monterey County Multi-Hazard Mitigation Plan (**Figure E-12, Appendix E**) displays both the location and extent of wildland fire hazard areas for Monterey County. A majority of the northern areas within the project corridor have a California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program (FRAP) fuel ranking of moderate, and the central and southern areas of the project corridor have FRAP fuel rankings of moderate, high, and very high. Therefore, portions of the project corridor within unincorporated Monterey County, former Fort Ord, and the cities of Marina and Seaside are most susceptible to wildland fires (Monterey County 2015).

Slope and Aspect

According to CAL FIRE, sloping land increases susceptibility to wildfire because fire typically burns faster up steep slopes (CAL FIRE 2017). Additionally, steep slopes may hinder firefighting efforts. Following severe wildfires, sloping land is also more susceptible to landslide or flooding from increased runoff during substantial precipitation events. Landslides and surficial slope failure are most likely to occur in areas of greater than 25 percent slope (hillside areas) and along steep bluffs.

Aspect is the direction that a slope faces, which determines how much radiated heat the slope will receive from the sun. Slopes facing south to southwest will receive the most solar radiation. As a result, south-facing slopes are warmer and the vegetation drier than on slopes facing a northerly to northeasterly direction, increasing the potential for wildfire ignition and spread (CAL FIRE 2017).

As discussed in **Section 4.7, *Geology and Soils***, Monterey County is vulnerable to slope instability in the Santa Lucia Mountain Range and fault zones, especially after prolonged rainfall. The general topography along the project corridor is gently sloping and would not expose recreational users to risk from landslides. However, some portions of the alignment have steeper slopes. Areas with steep slopes include the eastern portion of the Northern Loop segment and along Blanco Road, and the Canyon Del Rey/SR 218 segment along at the intersection of General Jim Moore Boulevard and SR 218. The Trail would be aligned to minimize steep slopes, and Trail grades would be gently sloped in areas with steep slopes to accommodate ADA accessibility and to reduce potential for landslides.

Vegetation

Vegetation is fuel to a wildfire and it changes over time. The relationship between vegetation and wildfire is complex, but generally some vegetation is naturally fire resistant, while other types are very flammable. For example, cured grass is much more flammable than standing trees (CAL FIRE 2017). Grass is considered an open fuel, in which oxygen has free access to promote the spread of fire. Additionally, weather and climate conditions, such as drought, can lead to increasingly dry vegetation with low moisture content and, thus, higher flammability.

Portions of the project corridor that extend through the former Fort Ord (National Monument Loop segment, Ryan Ranch segment, and east end of the Canyon Del Rey/SR 218 segment) are composed primarily of natural habitats, while other portions of the project corridor extend into developed areas on the California State University, Monterey Bay (CSUMB) campus and into the cities of Seaside and Marina (CSUMB North and CSUMB South segments, Northern Loop segment, and portions of the Northern Marina segment and Canyon Del Rey/SR 218 segment). Commercial agricultural lands border the northern portions of the project corridor (Northern Marina segment).

As stated in **Section 4.4, *Biological Resources***, coast live oak woodland vegetation is widely distributed along the proposed Northern, National Monument, CSUMB North and South, and Canyon Del Rey/218 Loop segments; chamise chaparral and black sage scrub vegetation occurs along the proposed National Monument Loop segment and portion of the Ryan Ranch segments; and California sagebrush scrub exists along the proposed Northern Loop segment and portions of the Northern Marina segment. These vegetation communities are susceptible to wildfire.

Weather and Atmospheric Conditions

Wind, temperature, and relative humidity are the most influential weather elements in fire behavior and susceptibility (CAL FIRE 2017). Fire moves faster under hot, dry, and windy conditions. Wind may also blow burning embers ahead of a fire, causing its spread. Drought conditions also lead to extended periods of excessively dry vegetation, increasing the fuel load and ignition potential.

The Western Regional Climate Center maintains a weather monitoring station in the City of Monterey, just south of the City of Seaside and the southern extent of the FORTAG alignment. According to data collected at this weather station (Western Regional Climate Center 2016), most precipitation in the Monterey region is received from November through March, with an average annual rainfall of approximately 20 inches. May through September is the driest part of the year and coincides with what has traditionally been considered the fire season in California. However,

increasingly persistent drought and climatic changes in California have resulted in drier winters, and fires during the autumn, winter, and spring months are becoming more common.

Prevailing winds in the project corridor are generally to the southeast (California Air Resources Board 1984). This means winds generally move from west to east from the coast of Monterey County toward the inland areas.

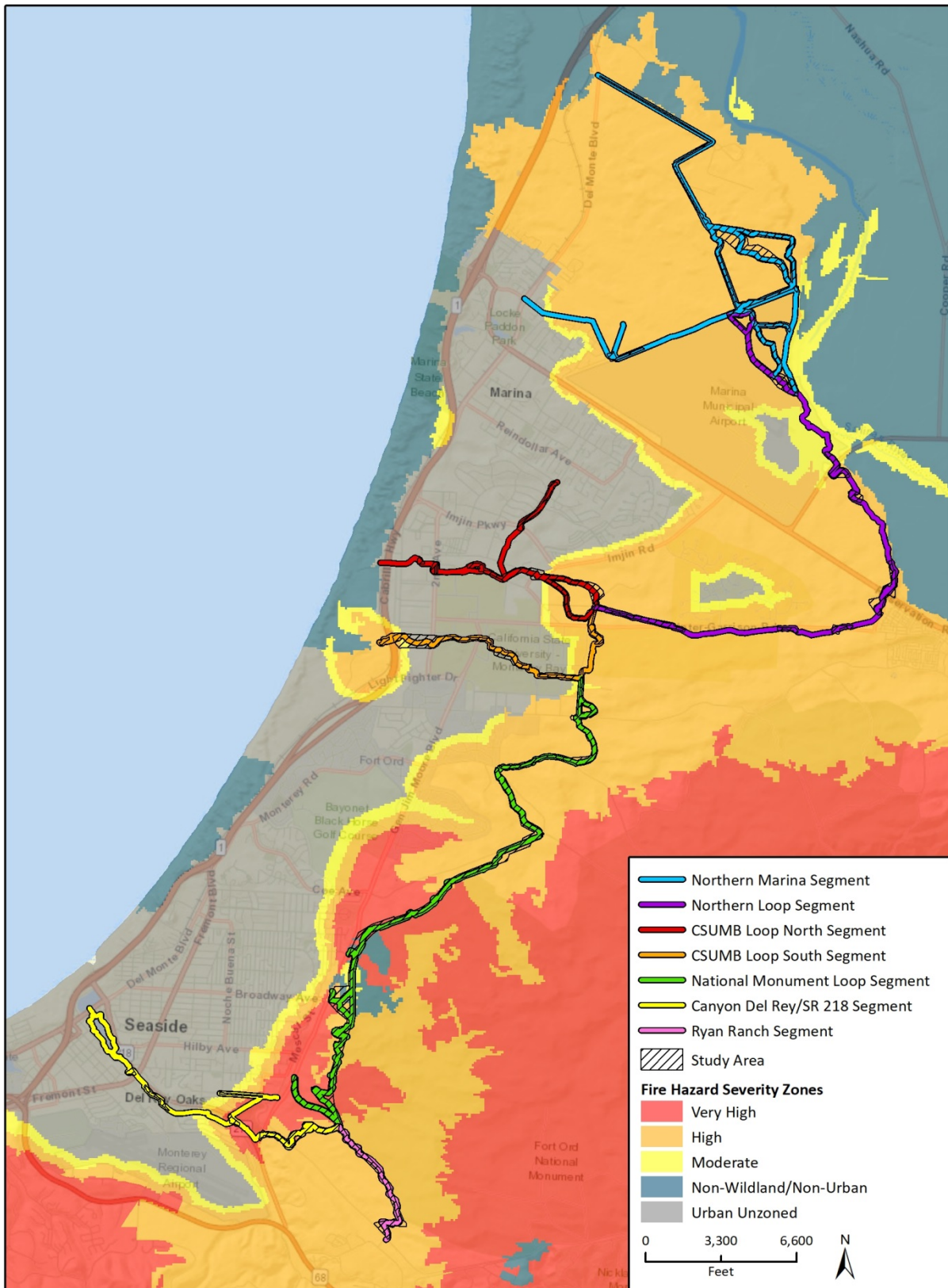
b. Wildfire Hazards

In California, responsibility for wildfire prevention and suppression is shared by federal, State, and local agencies. Federal agencies are responsible for federal lands in Federal Responsibility Areas (FRAs). The State of California has determined that some non-federal lands in unincorporated areas with watershed value are of statewide interest, and have classified those lands as State Responsibility Areas (SRA), which are managed by CAL FIRE. All incorporated areas and other unincorporated lands are classified as Local Responsibility Areas (LRA) (CAL FIRE 2019b).

While nearly all of California is subject to some degree of wildfire hazard, there are specific features that make certain areas more hazardous. CAL FIRE is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors, pursuant to Public Resources Code (PRC) 4201-4204, California Government Code 51175-89. As described above, the primary factors that increase an area's susceptibility to fire hazards include slope, vegetation type and condition, and atmospheric conditions. CAL FIRE maps fire hazards based on zones, referred to as Fire Hazard Severity Zones. CAL FIRE maps three zones of SRA: 1) Moderate Fire Hazard Severity Zones; 2) High Fire Hazard Severity Zones (HFHSZ); and 3) Very High Fire Hazard Severity Zones (VHFHSZ). Only the VHFHSZ are mapped for LRA. Each of the zones influence how people construct buildings and protect property to reduce risk associated with wildland fires. Under State regulations, areas within VHFHSZ must comply with specific building and vegetation management requirements intended to reduce property damage and loss of life within these areas.

Portions of the project corridor have been mapped as Moderate, High, and Very High Wildfire Hazard Areas by CAL FIRE due to the presence of wildfire prone vegetation, steep and dry slopes, and the presence or proximity of structures vulnerable to wildland fires (CAL FIRE 2007, Monterey County 2015). As shown on **Figure 4.17-1**, the FORTAG alignment would predominantly be located in areas designated as HFHSZ (approximately 16.5 miles), with a southern portion of the National Monument Loop segment traversing through areas designated as VHFHSZ (approximately 3.5 miles). Smaller portions of the project corridor would also be located in areas designated as Moderate Fire Hazard Severity Zones (approximately 1.8 miles) and urban areas (approximately 5.8 miles). Less than one mile of the project corridor would traverse through areas designated as non-wildland/non-urban. **Table 4.17-1** shows the breakdown of lengths of FORTAG segments (for the proposed alignments and the difference of the optional alignments) that would be in each fire severity zone.

Figure 4.17-1 Fire Hazard Severity Zones



Imagery provided by ESRI and its licensors © 2019. Additional data provided by Alta Planning + Design, 2019.
 Fire Hazard data provided by CAL FIRE, 2007.

Fig 4.17-1 Fire Hazard Areas

Table 4.17-1 FORTAG Segments in Fire Hazard Zones

Segments	Fire Hazard Severity Zones (miles) ¹				
	Very High	High	Moderate	Urban Unzoned	Non-Wildland/Non-Urban
FORTAG Alignment					
Canyon Del Rey/SR 218	1.1	1.2	0.2	1.5	–
CSUMB Loop North	–	0.5	<0.1	2.5	–
CSUMB Loop South	–	0.9	0.2	1.6	–
National Monument Loop	2.4	4.8	0.4	–	0.3
Northern Loop	–	5.6	0.9	–	–
Northern Marina	–	2.0	0.1	0.2	–
Ryan Ranch	–	1.4	–	–	–
Alignment Total	3.5	16.4	1.8	5.8	0.3
FORTAG Optional Alignment²					
Canyon Del Rey/SR 218	NC	NC	NC	+2.1	–
CSUMB Loop North	–	+0.6	+0.1	+0.4	–
CSUMB Loop South	–	+0.2	NC	NC	–
National Monument Loop	–	NC	NC	–	NC
Northern Loop	NC	+0.2	NC	–	–
Northern Marina	–	+7.7	+0.5	NC	–
Ryan Ranch	–	NC	–	–	–
Optional Alignment Total Change³	NC	+8.7	+0.6	+2.5	NC

¹ All segment lengths classified by fire hazard severity zone are shown in miles, rounded to the nearest tenth of a mile.

² Segment lengths classified by fire hazard severity zone for optional alignments only; data shown under “Optional Alignment” does not include entire alignment.

³ Difference in segment lengths that would be in fire hazard severity zones shown; this data does not include entire alignment.

Source: Rincon Consultants, Inc.

4.17.2 Regulatory Setting

a. Federal

The Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 requires a State mitigation plan as a condition of disaster assistance. There are two different levels of State disaster plans: “Standard” and “Enhanced.” States that develop an approved Enhanced State Plan can increase the amount of funding available through the Hazard Mitigation Grant Program. The Act has also established new requirements for local mitigation plans.

National Fire Plan

The National Fire Plan was developed under Executive Order 11246 in August 2000, following a historic wildland fire season. Its intent is to establish plans for active response to severe wildland fires and their impacts to communities while ensuring sufficient firefighting capacity. The plan

addresses firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability. The program promotes close coordination among local, State, tribal, and federal firefighting resources by conducting training, purchasing equipment, and providing prevention activities on a cost-shared basis. To help protect people and their property from potential catastrophic wildfire, the National Fire Plan directs funding to be provided for projects designed to reduce the fire risks to communities. High risk communities identified within the wildland-urban interface, the area where homes and wildlands intermix, were published in the Federal Register in 2001. At the request of Congress, the Federal Register notice only listed those communities neighboring Federal lands, which includes the cities of Del Rey Oaks, Marina, Monterey, and Seaside, and the former Fort Ord (CAL FIRE 2018c). As such, CAL FIRE incorporates concepts from this plan into local fire planning efforts.

b. State

California Fire and Building Code (2016)

The 2016 Fire and Building Code establishes the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety, and general welfare for the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of this code apply to the construction, alteration, movement enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure or any appurtenances connected or attached to such building structures throughout the State of California.

More specifically, the Fire Code is included in Title 24 of the California Code of Regulations. California Fire Code Title 24, Part 9, Chapter 7 addresses Fire-Resistances - Rated Construction, California Building Code (Part 2), Chapter 7A addresses Materials and Construction Methods for Exterior Wildfire Exposure, Fire Code Chapter 8 addresses fire related Interior Finishes, and Fire Code Chapter 9 addresses Fire Protection Systems, and Fire Code Chapter 10 addresses fire related Means of Egress, including Fire Apparatus Access Road width requirements. Fire Code Section 4906 also contains existing regulations for vegetation and fuel management to maintain clearances around structures.

On September 20, 2007 the Building Standards Commission approved the Office of the State Fire Marshal emergency regulations amending the California Code of Regulations to incorporate Wildland Urban Interface Building Standards, Title 24, Part 2, Sections 701A.3.2 et seq. These codes include provisions for ignition-resistant construction standards in the wildland urban interface.

The California Fire Plan

The Strategic Fire Plan for California (California Fire Plan) is the State's road map for reducing the risk of wildfire. The most recent version of the Plan was finalized in August 2018, and directs each CAL FIRE Unit to prepare a locally specific Fire Management Plan (CAL FIRE 2018a). In compliance with the California Fire Plan, individual CAL FIRE units are required to develop Fire Management Plans for their areas of responsibility. These documents assess the fire situation within each of the 21 CAL FIRE units and six contract counties. The plans include stakeholder contributions and priorities, and identify strategic areas for pre-fire planning and fuel treatment as defined by the people who live and work with the local fire problem. The plans are required to be updated annually. The CAL FIRE San Benito Monterey Unit Strategic Fire Plan (Fire Plan) seeks to reduce

firefighting costs and property losses, increase firefighter safety, and educate the public on fire prevention. With California's extensive wildland-urban interface situation, the list of high-risk communities extends beyond just those adjacent to Federal lands, as listed under the National Fire Plan. The California State Forester (CAL FIRE Director) has the responsibility for managing the list. The cities of Del Rey Oaks, Marina, Monterey, and Seaside, and the former Fort Ord are listed by the CAL FIRE Director as high-risk communities (CAL FIRE 2018c).

California Office of Emergency Services

The California Office of Emergency Services (OES) prepares the State of California Multi-Hazard Mitigation Plan (SHMP). The SHMP identifies hazard risks, and includes a vulnerability analysis and a hazard mitigation strategy. The SHMP is federally required under the Disaster Mitigation Act of 2000 in order for the State to receive Federal funding. The Disaster Mitigation Act of 2000 requires a State mitigation plan as a condition of disaster assistance.

State Emergency Plan

The foundation of California's emergency planning and response is a statewide mutual aid system which is designed to ensure that adequate resources, facilities, and other support is provided to jurisdictions whenever their own resources prove to be inadequate to cope with a given situation.

The California Disaster and Civil Defense Master Mutual Aid Agreement (California Government Code Sections 8555–8561) requires signatories to the agreement to prepare operational plans to use within their jurisdiction, and outside their area. These plans include fire and non-fire emergencies related to natural, technological, and war contingencies. The State of California, all State agencies, all political subdivisions, and all fire districts signed this agreement in 1950.

Section 8568 of the California Government Code, the California Emergency Services Act, states that "the State Emergency Plan shall be in effect in each political subdivision of the state, and the governing body of each political subdivision shall take such action as may be necessary to carry out the provisions thereof." The Act provides the basic authorities for conducting emergency operations following the proclamations of emergencies by the Governor or appropriate local authority, such as a City Manager. The provisions of the act are further reflected and expanded on by appropriate local emergency ordinances. The Act further describes the function and operations of government at all levels during extraordinary emergencies, including war (CalOES 2014).

All local emergency plans are extensions of the State of California Emergency Plan. The State Emergency Plan conforms to the requirements of California's Standardized Emergency Management System (SEMS), which is the system required by Government Code 8607(a) for managing emergencies involving multiple jurisdictions and agencies (CalOES 2017). The SEMS incorporates the functions and principles of the Incident Command System (ICS), the Master Mutual Aid Agreement (MMAA), existing mutual aid systems, the operational area concept, and multi-agency or inter-agency coordination. Local governments must use SEMS to be eligible for funding of their response-related personnel costs under state disaster assistance programs. The SEMS consists of five organizational levels that are activated as necessary, including: field response, local government, operational area, regional, and state.

The State of California Governor's Office of Emergency Services (CalOES) divides the state into several mutual aid regions. The project corridor is located in Mutual Air Region II, which includes Del Norte, Humboldt, Mendocino, Sonoma, Lake, Napa, Marin, Solano, Contra Costa, San Francisco, San Mateo, Alameda, Santa Clara, Santa Cruz, San Benito, and Monterey Counties (CalOES 2019).

CAL FIRE works in cooperation with the CalOES, along with neighboring state governments, through a network of mutual aid agreements to fight wildland fires. CAL FIRE is the largest multipurpose fire protection agency in the United States, responsible for wildland fire protection and stewardship of over 31 million acres of California's privately-owned wildlands, and provides varied emergency services in 36 of the State's 58 counties via contracts with local governments (CAL FIRE 2019a). CAL FIRE responds to over 5,750 wildland fires each year and commands a force of approximately 6,100 full-time fire professionals, 2,600 seasonal personnel, and approximately 600 volunteers in prevention (CAL FIRE 2018b). In addition to its 343 fire engines, CAL FIRE maintains a significant fleet of aircraft that includes 23 air tankers, 17 air tactical planes, and 12 helicopters (CAL FIRE 2018b).

CAL FIRE provides wildfire protection to 1.3 million acres of SRAs from seven fire stations and one conservation camp located in Monterey County. The fire equipment located at CAL FIRE's stations and conservation camp in the County are sufficient to meet CAL FIRE's goal of controlling 95 percent of SRA wild fires in the first burning period (Monterey County 2010a).

Senate Bill 1241 (Kehoe) of 2012

Senate Bill 1241 requires cities and counties to address fire risk in SRAs and VHFHSZ in the safety element of their general plans. The bill also resulted in amendments to the *CEQA Guidelines* Initial Study checklist to include questions related to fire hazard impacts for projects located in or near lands classified as SRAs and VHFHSZ. In adopting these Guidelines amendments, the Governor's Office of Planning and Research recognized that generally, low-density, leapfrog development may create higher wildfire risks than high-density, infill development. Local regulatory setting specific to each jurisdiction that would contain a portion of FORTAG trails is further discussed below.

Subdivision Map Act

Government Code Section 66474.02, as added by SB 1241, requires that a legislative body of a county make three findings before approving a tentative map, or a parcel map for which a tentative map was not required, for an area located in a state responsibility area or a very high fire hazard severity zone. These findings are as follows:

- 1) A finding supported by substantial evidence in the record that the design and location of each lot in the subdivision, and the subdivision as a whole, are consistent with any applicable regulations adopted by the State Board of Forestry and Fire Protection pursuant to Sections 4290 and 4291 of the Public Resources Code.
- 2) A finding supported by substantial evidence in the record that structural fire protection and suppression services will be available for the subdivision through any of the following entities:
 - a. A county, city, special district, political subdivision of the state, or another entity organized solely to provide fire protection services that is monitored and funded by a county or other public entity.
 - b. The Department of Forestry and Fire Protection by contract entered into pursuant to Section 4133, 4142, or 4144 of the Public Resources Code.
- 3) A finding that to the extent practicable, ingress and egress for the subdivision meets the regulations regarding road standards for fire equipment access pursuant to Section 4290 of the Public Resources Code and any applicable local ordinance.

Government Code Section 51182

A person who owns, leases, controls, operates, or maintains an occupied dwelling or occupied structure in, upon, or adjoining a mountainous area, forest-covered land, brush-covered land, grass-covered land, or land that is covered with flammable material, which area or land is within a very high fire hazard severity zone shall at all times do all of the following:

- A. Maintain defensible space of 100 feet from each side and from the front and rear of the structure;
- B. Remove that portion of a tree that extends within 10 feet of the outlet of a chimney or stovepipe;
- C. Maintain a tree, shrub, or other plant adjacent to or overhanging a building free of dead or dying wood;
- D. Maintain the roof of a structure free of leaves, needles, or other vegetative materials; and
- E. Prior to constructing a new dwelling or structure that will be occupied or rebuilding an occupied dwelling or occupied structure damaged by a fire in that zone, the construction or rebuilding of which requires a building permit, the owner shall obtain a certification from the local building official that the dwelling or structure, as proposed to be built, complies with all applicable state and local building standards.

Senate Bill 1028

Senate Bill 1028 (2016) requires each electrical corporation to construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of catastrophic wildfire posed by those electrical lines and equipment, and makes a violation of these provisions by an electrical corporation a crime under state law. The bill also requires each electrical corporation to annually prepare a wildfire mitigation plan and submit to CPUC for review. The plan must include a statement of objectives, a description of preventive strategies and programs that are focused on minimizing risk associated with electric facilities, and a description of the metrics that the electric corporation uses to evaluate the overall wildfire mitigation plan performance and assumptions that underlie the use of the metrics.

c. Regional

1997 Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California

The Installation-Wide Multispecies Habitat Management Plan (HMP) for Fort Ord establishes the guidelines for the conservation and management of wildlife and plant species and habitats present on Fort Ord land (USACE 1997). Borderland development areas along the natural resource management area (NRMA) interface on former Fort Ord lands are required to be maintained by the Fort Ord Reuse Authority (FORA) or other land recipients. Management requirements along the interface include the development of firebreaks and limitation of vehicle access. To minimize the possibility of fire damage to the NRMA as well as other build structures that may be present in borderland development areas, nonflammable or fire-resistant land uses (such as parking lots and firebreaks) may be located as a buffer between the NRMA and development (USACE 1997).

The HMP further states that FORA or other recipients of the borderland development areas must either arrange to have existing habitat managed in an interim period before development, or

construct and maintain firebreaks and vehicle barriers to separate developed and developing areas from both interim and permanent habitat areas (USACE 1997). In ensuring successful implementation of the HMP, FORA agreed to work with the U.S. Department of Interior Bureau of Land Management (BLM) to identify suitable locations for both interim and long-term firebreaks and barriers as development of Fort Ord lands proceed (USACE 1997).

1997 Fort Ord Reuse Authority Base Reuse Plan

FORA adopted the Base Reuse Plan (BRP) in June 1997, and a revised version of the BRP was published in digital format in September 2001 and March 2018, incorporating various corrections and errata. As stated in the BRP, wildfire hazards exist at the former Fort Ord primarily in open space and habitat areas, especially those containing grassland with many steeper areas containing brushland and wooded slopes. These areas are located primarily in the eastern half of the Fort Ord planning area, mostly in unincorporated Monterey County and within the FORTAG corridor. The BRP Safety Element contains Fire, Flood, and Emergency Management Objective A, to protect public safety by minimizing risk from fire hazards, especially wildfire in grassland and wooded areas in the Fort Ord region (FORA 1997). The following policies and programs are relevant to FORTAG:

- **Fire, Flood, and Emergency Management Policy A-2:** The City shall reduce fire hazard risks to an acceptable level by inventorying and assigning risk levels for wildfire hazards and regulating the type, density, location, and/or design and construction of new developments, both public and private. (Applicable to City of Marina, City of Seaside, and County of Monterey)
- **Fire, Flood, and Emergency Management Program A-3.2:** The City shall develop a public education program on fire hazards and citizen responsibility, including printed material, workshops, or school programs, especially alerting the public to wildfire dangers, evacuation routes, fire suppression methods, and fuel management including methods to reduce fire hazards such as bush clearing, roof materials, plant selection, and emergency water storage guidelines. (Applicable to City of Seaside and County of Monterey)

Monterey County Community Wildfire Protection Plan

The Monterey County Community Wildfire Protection Plan (MCCWFP) was developed by regional stakeholders to provide guidance to wildfire prevention and protection, including recommendations for hazardous fuel mitigation activities and methods for reducing structural ignitability. While state-level risk analyses are made publicly available by the Fire and Resource Assessment Program, the analysis conducted for Monterey County fuels distribution, fire threat, and fire risk ratings is more detailed and experience-specific, with focused results that were instrumental in identifying overall threat to Monterey County communities. As stated above under *The California Fire Plan*, the CAL FIRE Director designated the cities of Del Rey Oaks, Marina, Monterey, and Seaside, and the Fort Ord as high-risk communities (CAL FIRE 2018c). **Table 4.17-2**, below, provides a summary of fuel hazard, wildfire risk, and fuel reduction work priority for the communities within the project corridor.

Table 4.17-2 Prioritization of Need for Fuel Reduction Work, by Community

Community or Area at Risk	Fuel Hazard	Risk of Wildfire Occurrence	Structural Ignitability	Overall Priority
Del Rey Oaks	High	Medium	High	High
Fort Ord	High	Medium	High	High
Marina	Low	Medium	Medium	Medium
Monterey	Medium	Medium	High	High
Seaside	Low	Medium	High	High

Adapted from table 13, Prioritization of Need for Fuel Reduction Work, by Community
Source: Monterey County 2010a

As shown in **Table 4.17-2**, the communities through which the project corridor traverses have a wildfire risk level of medium, though fuel hazard levels vary from low in the areas of Marina and Seaside to high in the areas of Del Rey Oaks and the former Fort Ord. Overall fuel reduction priorities for the communities within the project corridor are high. According to the MCCWFP, undeveloped, former Fort Ord lands within the cities of Del Rey Oaks, Marina, Seaside, and other communities may present the single greatest hazardous fuel and fire threat to wildland-urban interface in Monterey County (Monterey County 2010a). The National Monument Loop and Ryan Ranch segments would traverse former Fort Ord lands.

Multi-Jurisdictional Hazard Mitigation Plan

The Monterey County Multi-Jurisdictional Hazard Mitigation Plan incorporates hazard mitigation principles and practices into the routine government activities and functions of the County and twelve municipalities participating in the Plan. The Hazard Plan recommends specific actions that are designed to protect people and community assets from losses to those hazards that pose the greatest risk. Chapter 4, *Hazard Analysis*, of the Hazard Plan states that based on previous occurrences, Monterey County can expect a large wildland fire to occur about every one to two years. Chapter 7, *Mitigation Strategy*, provides a blueprint for reducing the potential losses identified in the vulnerability analysis. Such measures include local plans and regulations, structure and infrastructure projects, natural systems protection, education and awareness programs, and other activities (Monterey County 2014). The cities of Del Rey Oaks, Marina, Monterey, and Seaside are participating jurisdictions of the County’s Hazard Plan.

Monterey County Regional Transportation Plan

The Transportation Agency for Monterey County (TAMC) is designated by the State of California to serve as the Regional Transportation Planning Agency for Monterey County. The Monterey County Regional Transportation Plan (2018), developed by TAMC in coordination with Association of Monterey Bay Area Governments (AMBAG), identifies challenges confronting the County’s transportation system and financing strategies to undertake countywide transportation projects that enhance mobility, safety, access, environmental quality, and economic activities while promoting sustainable land use patterns (TAMC 2018). Projects identified in the Monterey County Regional Transportation Plan include those that would be in areas of moderate, high, and very high fire hazard. The FORTAG project is included in the County’s 2018 Regional Transportation Plan as a regional transportation network improvement project for the Coastal Corridor.

d. Local

Monterey County

2010 Monterey County General Plan

The 2010 Monterey County General Plan Conservation/Open Space and Safety Elements contain policies related to fire hazards (Monterey County 2010b). The following policies are relevant to FORTAG:

- **OS-5.23:** The County shall prepare, adopt and implement a program that allows projects to mitigate the loss of oak woodlands, while also taking into consideration wildfire prevention/protection. Consistent with California Public Resources Code Section 21083.4, the program shall identify a combination of the following mitigation alternatives:
 - a. ratios for replacement,
 - b. payment of fees to mitigate the loss or direct replacement for the loss of oak woodlands and monitoring for compliance; and
 - c. conservation easements.

The program shall identify criteria for suitable donor sites. Mitigation for the loss of oak woodlands may be either on-site or off-site. The program shall allow payment of fees to either a local fund established by the County or a state fund. Until such time as the County program is implemented consistent with Public Resources Code Section 21083.4(b), projects shall pay a fee to the state Oak Woodlands Conservation Fund (OWCF). Replacement of oak woodlands shall provide for equivalent acreage and ecological value at a minimum of 1:1 ratio. The program shall prioritize the conservation of oak woodlands that are within known wildlife corridors as a high priority. The oak woodlands mitigation program shall be adopted within 5 years of adoption of the General Plan.

- **S-4.1:** Risks and losses from fire hazards shall be reduced by encouraging public education programs on fire hazards and citizen awareness and responsibility in preventing fires.
- **S-4.2:** The County shall encourage and support fire protection agencies to provide communities they serve with educational materials on local fire hazards and how each community can be protected. This information should be continually available at the local fire station, local library, other convenient locations, and through the media.
- **S-4.11:** The County shall require all new development to be provided with automatic fire protection systems (such as fire breaks, fire-retardant building materials, automatic fire sprinkler systems, and/or water storage tanks) approved by the fire jurisdiction.
- **S-4.16:** New and reconstructed bridges shall be constructed in accordance with Monterey County Code Chapter 18.56 and the California Fire Code as amended.

Fort Ord Master Plan

The southern portion of the National Monument Loop segment would be located in the Habitat Management Plan area for Fort Ord. The County's General Plan includes the Fort Ord Master Plan, which contains several policies and programs pertaining to fire breaks and controlled burns to preserve and protect sensitive species and habitats addressed in the installation-wide Habitat

Management Plan for Fort Ord (Monterey County 2010b). The following objectives, policies, and programs are relevant to FORTAG:

Objective A: *Protect public safety by minimizing the risk from fire hazards, especially wildfire in grassland and wooded areas in the former Fort Ord region.*

- **Biological Resource Policy A-8:** The County shall maintain the quality of the habitat in the Frog Pond Natural Area.
 - **Program A-8.2:** The County shall require installation of appropriate firebreaks and barriers sufficient to prevent unauthorized vehicle access along the border of Fort Ord Reuse Plan Polygons 31a and 31b. A fuel break maintaining the existing type E canopy (i.e., shaded fuel break) shall be located within a five-acre primary buffer zone on the western edge of Polygon 31b (in Reuse Plan). No building or roadways will be allowed in this buffer zone with the exception of picnic areas, trailheads, interpretive signs, drainage facilities and parking. Firebreaks should be designed to protect structures in Fort Ord Reuse Plan Polygon 31b from potential wildfires in Fort Ord Reuse Plan Polygon 31a. Barriers should be designed to prohibit unauthorized access into Fort Ord Reuse Plan Polygon 31a.
- **Fire, Flood, and Emergency Management Policy A-1:** The county shall reduce fire hazard risks to an acceptable level by inventorying and assigning risk levels for wildfire hazards and regulating the type, density, location, and/or design and construction of new developments, both public and private.
- **Fire, Flood, and Emergency Management Policy A-2:** The County shall provide fire suppression water system guidelines and implementation plans for existing and acquired former Fort Ord lands equal to or greater than those recommended in the Fort Ord Infrastructure Study (FORIS Section Fort Ord Reuse Plan Table 4.1.8) for fire protection water volumes, system distribution upgrades, and emergency water storage.
- **Fire, Flood, and Emergency Management Policy A-3:** The County shall develop a fire management plan in cooperation with other Fort Ord jurisdictions and the surrounding communities' fire protection agencies to ensure adequate staff levels, response time, and fire suppression operations in high fire hazard areas of the former Fort Ord. The fire management plan shall also include a fire "fuel management program" developed cooperatively with the Bureau of Land Management.
 - **Program A-3.1:** The County shall develop a mutual and/or automatic fire aid agreement, with appropriate fire protection agencies, to assure the most effective response.
 - **Program A-3.2:** The County shall develop a public education program on fire hazards and citizen responsibility, including printed material, workshops, or school programs, especially alerting the public to wildfire dangers, evacuation routes, fire suppression methods, and fuel management including methods to reduce fire hazards such as bush clearing, roof materials, plant selection, and emergency water storage guidelines.

Monterey County Code

Monterey County Code Chapter 18.56, *Wildfire Protection Standards in State Responsibility Areas*, provides development standards to ensure that emergency access and perimeter wildfire protection measures are implemented for projects located in SRAs. Section 18.56.080 pertains to emergency water for wildfire protection, which must be available and accessible to attach a wildfire or defend property from a wildfire. Section 18.56.090 pertains to fuel modification standards aimed at

reducing the volume and density of flammable vegetation, strategic siting of fuel modification and greenbelts to provide increased safety for emergency fire equipment and evacuating civilians, and to ensure provision of defensible space.

City of Marina

2000 City of Marina General Plan

The City of Marina’s 2000 General Plan (amended 2010) provides information about fire protection services and facilities in the Community Land Use Element. However, there are no specific goals, policies, or programs pertaining to wildfire hazards (City of Marina 2000).

City of Marina Municipal Code

City of Marina Municipal Code Chapter 15.32, *Adoption of the California Fire Code*, establishes the adoption and incorporation of the CFC, 2016 Edition as amended in Title 24 of the California Code of Regulations (City of Marina 2019). Most of the provisions in the City of Marina’s Fire Code pertain to the protection of lives and property from fires, and the prevention of fires. There are no City-specific ordinances pertaining to the reduction of wildfire hazards or fuel modification.

City of Seaside

2004 City of Seaside General Plan

The City of Seaside’s 2004 General Plan Safety Element includes one goal and several underlying policies to reduce wildfire risks (City of Seaside 2003). The following goal, policies, and implementation plans are relevant to FORTAG:

Goal S-1: Reduce the risks to people and property from hazards related to seismic activity, flooding, geologic conditions, and wildfires.

- **Policy S-1.3:** Reduce the risk of wildfire hazards in the community.
 - **Implementation Plan S-1.3.1:** Fuel Modification. Work with the U.S. Army, private property owners, and adjacent jurisdictions to maintain fire retardant landscaping and buffer zones in areas of high wildfire risk.

The Safety Element also maps designated fire and tsunami evacuation routes. These routes include, Del Monte Boulevard, State Route 1 (SR 1), General Jim Moore Boulevard, Lightfighter Drive, Gigling Road, Eucalyptus Road, as well as other streets (General Plan Figure S-6). In the event of a fire or tsunami that requires evacuation for public safety, the City of Seaside would coordinate the evacuation in accordance with these designated routes.

2040 City of Seaside General Plan (Draft)

The draft *2040 City of Seaside General Plan Land Use and Community Design Element and Safety Element* includes goals and several policies intended to reduce the risk of wildfires in a wildland-urban interface (City of Seaside 2017). The following goal, policies, and implementation plans are relevant to FORTAG:

- **Goal LUD-22, Policy – Wildfire Risk:** Require that all future developments on former Fort Ord lands take steps to reduce wildfire risk as part of the site review process.

- **Goal LUD-22, Policy – Hazard Mitigation:** Support plans and policies that mitigate existing hazards and reduce the risk of urban and wildfire threats.
- **Goal S-5:** Minimization of risk of fire hazards in the City and wildfire hazards on former Fort Ord lands through Fire prevention design and fuel reduction strategies.
- **Goal S-5, Policy – Inventory Risk Levels:** Reduce fire hazard risks to an acceptable level by inventorying and assigning risk levels for wildfire hazards and regulating the type, density, location, and/or design and construction of new developments, both public and private.
- **Goal S-5, Policy – Fire Prevention by Design:** Ensure that planning and design of development in very high fire hazard areas minimizes the risks of wildfire through structure development in accordance with the California Building Code Chapter 7A and includes adequate provisions for vegetation management, emergency access, and firefighting.
- **Goal S-5, Policy – Fire Protection Former Fort Ord:** Provide fire suppression water system guidelines and implementation plans for existing and acquired former Fort Ord lands equal to those recommended in the Fort Ord Infrastructure Study for fire protection water volumes, system distribution upgrades, and emergency water storage.
- **Goal S-5, Policy – Landscaping and buffer zones:** Work with the U.S. Army, private property owners, and adjacent jurisdictions to maintain fire safe landscaping and buffer zones in areas of wildfire risk.
- **Goal S-5, Policy – Water Pressure:** Coordinate with water districts to ensure that water pressure for existing developed areas and former Fort Ord lands is adequate for firefighting purposes
- **Goal S-5, Policy – Development in the Very High Fire Hazard Severity Zone:** Require new development in the Very High Fire Hazard Severity Zone to develop a fire protection and evacuation plan and ensure that the plan includes adequate fire access to new development.

The proposed Safety Element also maps designated fire and tsunami evacuation routes. These routes include Canyon Del Rey Boulevard/SR 218, Fremont Boulevard, Del Monte Boulevard, SR 1, Monterey Road, General Jim Moore Boulevard, Lightfighter Drive, and eight other roadways that run in an east-west direction. In the event of a fire or tsunami that requires evacuation for public safety, the City of Seaside would coordinate the evacuation in accordance with these designated routes.

City of Seaside Municipal Code

City of Seaside Municipal Code Section 15.04.170, *Adoption of California Fire Code*, establishes the adoption and incorporation of the CFC, 2016 Edition (City of Seaside 2019). Section 15.04.210 requires a permit from the Seaside Fire Department for any open pit fires, and Section 15.04.220 includes amended sections of the CFC pertaining to fire safety apparatus (i.e., fire sprinkler systems) and post-fire repairs for structures. There are no City-specific ordinances pertaining to the reduction of wildfire hazards or fuel modification.

City of Monterey

2006 City of Monterey General Plan

The City of Monterey's General Plan Safety Element includes one goal and several policies to minimize the loss of life and property from fires (City of Monterey 2005). The following goal and policies are relevant to FORTAG:

Goal d: *Minimize the loss of life and property from fire.*

- **Policy d.1:** Achieve the greatest practical level of built-in fire protection to confine fires.
- **Policy d.2:** Achieve effective emergency access to all developments, installations, and fire protection equipment for emergency apparatus and for evacuation.

City of Monterey Municipal Code

City of Monterey Municipal Code Chapter 13, *Fire Protection*, establishes the adoption and incorporation of the CFC, 2016 Edition (City of Monterey 2019). Most of the provisions in the City of Monterey's Fire Code pertain to the protection of lives and property from fires, and prevention of fires. Municipal Code Section 13-7 and 13-8 note the presence of High and Very High Fire Hazard Severity Zones within City limits. There are no City-specific ordinances pertaining to the reduction of wildfire hazards or fuel modification.

City of Del Rey Oaks

City of Del Rey Oaks General Plan

The City of Del Rey Oaks General Plan provides a framework for development and growth in the city (City of Del Rey Oaks 1997). The City's General Plan contains a Conservation and Open Space Element and a Safety Element. However, there are no specific goals, policies, or programs pertaining to wildfire hazards (City of Del Rey Oaks 1997).

City of Del Rey Oaks Municipal Code

City of Del Rey Oaks Municipal Code Chapter 8.04, *Fire Code*, establishes the adoption and incorporation of the California Fire Code (CFC), 2010 Edition (City of Del Rey Oaks 2019). Most of the provisions in the City of Del Rey Oaks' Fire Code pertain to the protection of lives and property from fires, and fire safety pertaining to development of alternative energy systems. There are no City-specific ordinances pertaining to the reduction of wildfire hazards or fuel modification.

California State University, Monterey Bay

CSUMB's 2018 Fire Safety Report contains fire safety policies for student housing and residential life, and community response protocols to a fire on campus (CSUMB 2018). The CSUMB Emergency Response Guide contains protocols for various situations that may occur on campus, such as the release of hazardous materials, earthquakes, fires and/or explosions, active shooters, and power/utility failures (CSUMB 2014). There are no goals, policies, or programs specific to wildfire hazards on the CSUMB campus.

4.17.3 Methodology and Significance Thresholds

Methodology

This section describes the potential environmental impacts of the proposed FORTAG project and all FORTAG design options relevant to wildfire hazards. Impacts related to wildfire hazards and risks were evaluated using fire hazard severity zone mapping for Monterey County, aerial imagery, and topographic mapping. Additionally, weather patterns related to prevailing winds and precipitation trends were evaluated as they relate to the spread and magnitude of wildfire. CEQA does not generally require an agency to consider the effects of existing environmental conditions on a proposed project's future users or residents. Consequently, impacts under the thresholds identified below would only be considered significant if FORTAG risks exacerbating those existing environmental conditions.

Significance Thresholds

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

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
5. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires

4.17.4 Project Impact Analysis

Threshold 1: Would the project be located in or near state responsibility areas or lands classified as very high fire hazard severity zones and substantially impair an adopted emergency response plan or emergency evacuation plan?
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Impact WFR-1 FORTAG WOULD BE LOCATED IN AREAS CLASSIFIED AS VERY HIGH FIRE HAZARD SEVERITY ZONES, BUT IMPLEMENTATION AND OPERATION OF FORTAG WOULD NOT SUBSTANTIALLY IMPAIR THE EXECUTION OF ADOPTED EMERGENCY RESPONSE OR EVACUATION PLANS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

As stated in **Section 2, Project Description**, the FORTAG corridor is organized into seven segments totaling approximately 28 miles of new paved trails for pedestrians and bicyclists. The project corridor would be located in lands designated as Moderate, High, and Very High Wildfire Hazards, as shown in **Figure 4.17-1** (CAL FIRE 2007, Monterey County 2015).

The County's Multi-Jurisdictional Hazard Mitigation Plan establishes a basis for the coordination, management, and operation of critical resources and describes the local government's authority, responsibilities, and functions in the event of an emergency. During an emergency, the implementing entities would collaborate with federal, State, and local law enforcement agencies, emergency health providers, the American Red Cross, and private industries. Furthermore, as discussed in **Section 4.13, *Public Safety and Services***, and **Section 4.14, *Transportation***, emergency service providers for the project corridor would have sufficient access to the Trail in the case of an emergency, such as a wildfire; and FORTAG would not be expected to lengthen existing emergency response times.

A portion of the National Monument Loop segment would curve along the westernmost border of the Fort Ord National Monument in the Fort Ord BRP borderland development areas, located in the jurisdiction of the City of Seaside. The westernmost border of the Fort Ord National Monument is also referred to as Blue Line Road (BLR) by the BLM, U.S. Army, and local jurisdictions. BLR is used by the BLM for fence line maintenance work and by the U.S. Army to access restricted areas (Impact Area Munitions Response Area [MRA]) to continue munitions recognition and safety training, environmental investigation and remediation under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). As part of FORTAG, the National Monument Loop segment that would overlap with portions of the BLR would be maintained by the underlying jurisdictions to preserve trail accessibility and line of site for Trail users, the U.S. Army, and fire and emergency response and evacuation.

Therefore, FORTAG would have a less than significant impact on the implementation of adopted emergency response or evacuation plans during wildfire events. No mitigation is required.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

- Threshold 2:** Would the project be located in or near state responsibility areas or lands classified as very high fire hazard severity zones and, 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?
- Threshold 3:** Would the project be located in or near state responsibility areas or lands classified as very high fire hazard severity zones and 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?
- Threshold 4:** Would the project be located in or near state responsibility areas or lands classified as very high fire hazard severity zones and 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?

Impact WFR-2 FORTAG WOULD BE LOCATED IN AREAS CLASSIFIED AS VERY HIGH FIRE HAZARD SEVERITY ZONES, BUT IMPLEMENTATION AND OPERATION OF FORTAG WOULD NOT EXACERBATE WILDFIRE RISKS WITH ADHERENCE TO APPLICABLE FIREBREAK MAINTENANCE STANDARDS. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

As described above in **Section 4.17.1, *Setting***, certain portions of the project corridor are more susceptible to wildfires based on the presence and amount of fuels, type of terrain, and weather. The general topography along the project corridor is gently sloping. However, some portions of the alignment, such as the eastern portion of the Northern Loop segment and along Blanco Road, have steeper slopes and could put Trail users at risk from landslides. As stated in **Section 4.7, *Geology and Soils***, design criteria in steep areas would reduce risk from landslides by ensuring that proposed infrastructure, such as overcrossings and undercrossings, would account for the steep slopes. For example, the proposed undercrossing at Reservation Road within the Northern Loop segment would have two undercrossings for Trail users to accommodate the two-way Trail traffic. The two undercrossings would be constructed at different elevations to accommodate the overall ground slope and prevent the potential for landslides. In addition, alignment grades would generally be gently sloped to accommodate ADA accessibility; the gentle slopes would also reduce potential for landslides. Therefore, project design criteria and implementation of **Mitigation Measure GEO-1** would reduce landslide risks in select portions of the FORTAG corridor where potential landslide conditions exist, which would also reduce the impacts of post-fire slope instability or drainage changes. **Mitigation Measure GEO-1** requires design-level geotechnical investigation and implementation of geotechnical recommendations that would reduce the risk for landslides and slope failure in the final project design to reduce the potential for the project to destabilize hillslopes or exacerbate slope instability in FORTAG corridor areas with steep slopes.

The FORTAG corridor experiences annual average wind speeds of 10 miles per hour (mph; 4.5 meters per second [m/s]) or less in a generally westward direction (U.S. Office of Energy Efficiency and Renewable Energy 2010; WRCC 2019). Therefore, prevailing winds in the FORTAG corridor would be mild compared to average annual wind speeds of 14.5 mph (6.5 m/s) or greater further east in Monterey County and San Benito County. The Trail would be constructed at ground level, and would not affect the speed, direction, or intensity of prevailing winds.

Several FORTAG segments would be located parallel to or nearby existing roads, such as the CSUMB North and South Loops, and portions of the Northern Marina and Canon Del Rey/SR 218 segments.

These areas would be readily accessible by emergency and first responders through existing road networks. Portions of FORTAG located further east such as the National Monument Loop, Ryan Ranch, and Northern Loop segments, would traverse more VHFHSZ to HFHSZ, as noted in **Table 4.17-1**. Existing road networks are also sparse through these FORTAG areas than compared to westward trail alignments.

Trail amenities would include trash receptacles and dog waste bags, but would not include restrooms or running water. As stated in **Section 2, Project Description**, FORTAG would not require gas, telecommunication, potable water, or sanitary sewer connections. FORTAG design includes avoidance of major utility conflicts, and therefore relocation of existing utilities is not anticipated.

Monterey County Code Section 18.56.090 contains regulations pertaining to fuel modification for areas with wildfire risks, and includes proper disposal of flammable vegetation and fuels during site development prior to completion of project construction or final inspection of a building permit. Implementation of FORTAG would adhere to the County's fuel modification regulations during site development. The FORTAG project does not include construction of any structures that would require defensible space or the placement of greenbelts between wildland fuels and structures.

The National Monument Loop segment would be adjacent to the Fort Ord National Monument along or near BLR. BLR is located within the jurisdictions of the cities of Del Rey Oaks and Seaside, and was historically and is currently used by the BLM and U.S. Army for fence line maintenance work on former Fort Ord lands. The U.S. Army also utilizes BLR to access MRAs on former Fort Ord lands, east of BLR. The U.S. Army's work includes prescribed burns where BLR is used as primary, secondary, or tertiary containment lines.

As shown in **Figure 4.17-1**, most areas designated as VHFHSZ within the project corridor are located along the borderland development areas. According to the Fort Ord HMP, these borderland development areas are required to be maintained by FORA or other land recipients, wherein ongoing management activities include the maintenance of firebreaks and vehicle barriers to protect NRMAs.

The FORTAG Master Agreement states that TAMC is undertaking the primary planning, development, and construction of FORTAG, and the underlying jurisdictions through which FORTAG trails traverse (County of Monterey and the cities of Marina, Seaside, Monterey, and Del Rey Oaks) would be responsible for maintenance and operation of the Trail segments. As such, maintenance activities would require the placement of firebreaks, where needed, to provide adequate buffers between wildland fuels and NRMAs, structures, other development for public safety, as required by the Fort Ord HMP for FORTAG corridor areas that are on former Fort Ord borderlands.

Therefore, with adherence to the County's fuel modification standards and borderland maintenance requirements under the Fort Ord HMP in select areas throughout the project corridor by underlying jurisdictions as stated in the FORTAG MA, impacts from wildfire risks due to uncontrolled spread of wildfire or landslides would be reduced to less than significant with mitigation to stabilize slopes. FORTAG would not exacerbate wildfire risks. The discussion under Impact WFR-3, below, includes additional information about wildfire exposure and risks.

Mitigation Measures

GEO-1 Conduct Design-level Geotechnical Investigation and Implement Recommendations

Mitigation Measure GEO-1 is included in **Section 4.7, *Geology and Soils***, under **Impact GEO-1**.

Significance After Mitigation

Impacts would be less than significant with mitigation.

Threshold 5: Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Impact WFR-3 FORTAG WOULD INCREASE THE PRESENCE OF PEOPLE IN AREAS DESIGNATED AS HIGH AND VERY HIGH WILDFIRE HAZARDS, BUT WOULD NOT EXPOSE PEOPLE OR STRUCTURES TO SIGNIFICANT WILDFIRE RISKS. THEREFORE, IMPACTS WOULD BE LESS THAN SIGNIFICANT.

FORTAG would increase recreational use in areas designated as Moderate, High, and Very High Wildfire Hazards, as shown in **Figure 4.17-1** (CAL FIRE 2007, Monterey County 2015). As stated in **Section 2, *Project Description***, the estimated number of daily Trail users would be between 1,000 and 3,000. The Trail is a transient use; Trail users would travel through the corridor at various speeds. Trail amenities and features would include rest areas, benches, and shade structures with wayfinding signage installed throughout the Trail at junction points, trailheads, viewpoints, and intersections. Amenity areas would include trash receptacles only; no restrooms, running water, or building structures would be included as part of FORTAG. Therefore, proposed amenities would provide temporary rest from Trail use and no restrooms or buildings would be constructed in the project corridor that would promote extended use of the project corridor. As such, FORTAG would not expose a substantial number of people for any extended period of time to wildland fire hazards.

Nonetheless, Trail users could be present on FORTAG at the start of a wildfire event, which would expose Trail users to risk of loss, injury, or death due to wildland fire hazards. The majority of Trail users that could be present on the Trail in the event of a wildfire would be on foot, wheelchair, horse, or bicycle, potentially without immediate access to a vehicle for evacuation purposes. However, most of the Trail segments would be parallel to or nearby existing roads, and trail users arriving by motor vehicle would utilize existing parking areas in the vicinity of or along the Trail. Furthermore, FORTAG would not include gates on any of the Trail segments, to ensure Trail users, maintenance personnel, and emergency personnel can access the Trail segments at all times. Moreover, due to the relative infrequency of wildfires and the transient nature of recreational trail use, the potential for exposing trail users to a significant wildland fire hazard would be low.

The addition of Trail users within the project corridor may increase the likelihood of a wildfire starting, either from vehicle use (i.e., sparks from cars in parking lots) or if people utilize matches, lighters, or smoke along the Trail segments. However, this increased risk would not be measurable or significant since it would not result in a change to the existing identified wildfire hazard levels throughout the project corridor. In addition, the presence of more Trail users would not impede emergency evacuation plans pursuant to the County's Multi-Jurisdictional Hazard Mitigation Plan since the Trail would not have any gates, and the proposed alignment would not impede access to identified emergency evacuation routes for the communities within the project corridor. Therefore, FORTAG would have a less than significant impact on wildfire exposure to people. No mitigation is required.

Mitigation Measures

No mitigation is required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

4.17.5 Cumulative Impact Analysis

The geographic scope for cumulative wildfire impacts includes the northwest Monterey County area and areas immediately adjacent to the FORTAG alignment: FORA lands, CSUMB, and developed areas in the jurisdictions through which FORTAG trails would be located. This geographic scope is appropriate for wildfire because wildfires can rapidly spread depending on the amount of fuel available and wind conditions during such events, resulting in impacts to large areas. Of the cumulative projects listed for consideration in **Table 3-1** of **Section 3**, *Environmental Setting*, those immediately adjacent to the FORTAG corridor include the following:

- City of Marina:
 - Marina Station project (mixed-use), adjacent to the Northern Marina segment
 - Cypress Knolls (senior residential community), Sea Haven (residential community), and The Dunes on Monterey Bay (mixed-use) projects, adjacent to the CSUMB Loop North segment
- City of Seaside: Seaside East (residential community with commercial and recreational zones) and the Central Coast Veterans Cemetery projects, adjacent to the National Monument Loop segment
- Monterey County: East Garrison (residential community) and Northeast-Southwest Arterial Connector (roadway extension) projects, adjacent to the Northern Loop segment
- City of Del Rey Oaks: Del Rey Oaks/Former Fort Ord Parcels (mixed-use) project, adjacent to the Canyon del Rey/SR 218 and Ryan Ranch segments
- City of Monterey: FORA Business Park project, adjacent to the Ryan Ranch segment

The consideration of the above-listed projects within the analytical extent for cumulative wildfire impacts is appropriate due to their proximity to FORTAG trail segments and locations in or near High and Very High Fire Severity Zones.

High and Very High Fire Hazard Severity Zones are located within the geographic scope for cumulative wildfire impacts. As shown in **Figure 4.17-1**, HFHSZ are located in the northern and eastern areas of the City of Marina, the eastern and southeastern areas of the City of Seaside, as well as a pocket by Lightfighter Drive and SR 1 by the Fort Order Dunes State Park; the eastern area of the City of Del Rey Oaks; the eastern edge of the City of Monterey; and on former Fort Ord lands in Monterey County. VHFHSZ are located in former Fort Ord lands and in the eastern areas of the cities of Seaside and Del Rey Oaks.

Within the geographic scope for this cumulative analysis, wildfire risks could be exacerbated and impacts could be significant if cumulative projects are located in HFHSZ or VHFHSZ. However, the cumulative projects listed above would be subject to applicable wildfire risk reduction, firebreak maintenance, and/or defensible space regulations of their respective jurisdictions. The residential and mixed-use projects listed above would increase the density of development in or near urbanized areas, and all new development and infrastructure would be subject to statewide standards for fire safety in the California Fire Code, as incorporated by reference in the municipal

codes of underlying jurisdictions of the above-listed projects (Marina Municipal Code Chapter 15.32 for projects in Marina; Seaside Municipal Code Section 15.04 for projects in Seaside; Monterey County Code Chapter 18.09 for projects in Monterey County; Del Rey Oaks Municipal Code Chapter 8.04 for the project in Del Rey Oaks; and Monterey Municipal Code Chapter 13 for the project in Monterey). Cumulative development projects would therefore not be expected to exacerbate wildfire risks, and cumulative impacts would be less than significant.

As referenced under **Impact WFR-1** and discussed in **Section 4.13, *Public Safety and Services***, and **Section 4.14, *Transportation***, emergency service providers for the project corridor would have sufficient access to the Trail in the case of an emergency, such as a wildfire; and FORTAG would not be expected to lengthen existing emergency response times. As stated under **Impact WFR-3**, the FORTAG project would increase recreational use in areas designated as HFHSZ and VHFHSZ. However, the use of FORTAG would not affect fire and emergency response and access to the FORTAG alignment or corridor. Furthermore, FORTAG would not include gates on any of the Trail segments, to ensure Trail users, maintenance personnel, and emergency personnel can access the Trail segments at all times. Therefore, the FORTAG project would not have a cumulatively considerable contribution to a significant cumulative impact regarding wildfires.

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4.18 Effects Found Not to be Significant

The *CEQA Guidelines* Section 15128 requires an EIR to briefly describe any possible significant effects that were determined not to be significant and, therefore, were not discussed in detail. This section addresses the potential environmental effects of the proposed Fort Ord Regional Trail and Greenway (FORTAG) project that clearly would not be significant and are not addressed in the preceding sections of this EIR.

The discussion is based on the thresholds contained in the *CEQA Guidelines* Appendix G. Any items not addressed in this section are addressed in **Sections 4.1** through **4.17** of this EIR.

4.18.1 Geology and Soils

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

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

FORTAG would not include restroom facilities or any other structures that would require wastewater disposal. Therefore, the project would not require a septic tank or alternative wastewater disposal. There would be no impact.

4.18.2 Mineral Resources

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

1. 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
2. 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

The Monterey County General Plan Conservation and Open Space Element notes that although the County contains useful minerals, geological complexity caused by faulting and deformation makes further investigation difficult and inconclusive (Monterey County 2010). The General Plan does not identify any specific mineral resources or mineral sites. The FORTAG jurisdictions do not include any land zoned for mineral extraction, and no mineral extraction occurs within the study area. No mineral resources are known to occur within the study area (United States Geological Survey 2019). Furthermore, as a trail project that does not include structures, FORTAG would not affect the long-term availability of mineral resources that could occur within the study area. Therefore, there would be no impact to mineral resources.

4.18.3 Population and Housing

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

1. 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)
2. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere

Although the Trail would be located near residences in some areas, no existing housing would be displaced. The project does not include construction of residences or other structures. Nor does the project include streets or other infrastructure, such as utility or water lines, that would allow for an increase in residential population. The project would improve alternative transportation in the region, but would not add any infrastructure that would accommodate a population increase. Therefore, the project would have no impact related to inducing population growth.

The proposed Trail would not displace any housing. However, the Trail would be located in some areas that are known to be used by transient and homeless people, including as an overnight sleeping-place. Therefore, displacement of homeless/transient individuals could occur during trail construction. However, as a linear project built out in phases, this effect would be temporary and would affect only a small area at a time. Other nearby areas with similar characteristics would likely be utilized by any individuals displaced by the construction or operation of FORTAG. Therefore, any displacement occurring as a result of the project would not affect a substantial number of people, and the project's impacts on population and housing would be less than significant.

4.18.4 Recreation

The significance thresholds used in this analysis are based on Appendix G of the *CEQA Guidelines*. For the purposes of this EIR, a significant impact would occur if implementation of the proposed project would result in any of the following conditions:

1. 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
2. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment

FORTAG would not increase the residential population in the region it would serve, and thus would not directly result in an increased demand for and use of existing recreational facilities. However, the project itself would provide a new recreational resource (multi-purpose trail) and increase connectivity and opportunity to use a variety of existing recreational resources in the area. These include Laguna Grande Park in Seaside/Monterey, Work Memorial Park and Frog Pond Wetland Preserve in Del Rey Oaks, and the Coastal Rec Trail.

The project includes features that would improve existing recreational facilities, namely by formalizing, paving, and connecting various existing trails and paths. The project would also add some amenities such as trash receptacles and lighting to improve trail experience, maintenance, and safety. Furthermore, maintenance and management of the Trail would be governed by a Master Agreement executed by TAMC and the jurisdictions within whose boundaries FORTAG is located, thus guaranteeing the on-going upkeep of the Trail.

As an approximately 28-mile trail, FORTAG is a recreational project that could result in adverse environmental impacts. However, these impacts are discussed in **Sections 4.1** through **4.17** of this

EIR, with mitigation required where necessary to reduce impacts to a less than significant level. Therefore, impacts related to recreation would be less than significant.

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5 Other CEQA Required Discussions

This section discusses growth-inducing impacts, irreversible environmental impacts, and significant and unavoidable impacts that would be caused by FORTAG.

5.1 Growth Inducement

Section 15126(d) of the *CEQA Guidelines* requires a discussion of a proposed project's potential to foster economic or population growth, including ways in which a project could remove an obstacle to growth. Economic and population growth does not necessarily cause significant physical changes to the environment. However, such growth can result in significant environmental effects depending on the type, magnitude, and location of growth. A project's growth-inducing potential is therefore considered significant if growth generated by the project could result in significant effects in one or more environmental issue areas.

5.1.1 Employment, Household, and Population Growth

FORTAG entails the phased construction of a multi-use trail for recreational and commuter use by pedestrians and bicyclists. As such, FORTAG does not include the provision of residential units or visitor-serving lodging. FORTAG would not include construction of new roads or parking areas. Therefore, operation of the Trail is not anticipated to add vehicle trips to local roads as most Trail users would access the trail on foot or bicycle. Use of the Trail may reduce vehicle miles for some users who would utilize the segments of the Trail as an alternative to passenger car travel. Consequently, no direct growth inducement is expected to result from FORTAG.

The increased recreational opportunities associated with FORTAG may, however, have indirect impacts by attracting Trail users from outside the Monterey County region. Although FORTAG may have beneficial effects on county circulation by increasing opportunities for the use of alternative modes of transportation in certain parts of the project corridor, an influx of visitors may result in increased recreational traffic in the region, particularly on weekends. Several proposed segments, such as the Northern Marina, CSUMB Loop North, CSUMB Loop South, and Canyon Del Rey/SR 218 segments, would traverse existing communities that contain commercial establishments and/or points of interest, including the cities of Marina, Monterey, Seaside, and Del Rey Oaks, as well as CSUMB. Therefore, an influx of Trail users and tourists from outside of the area may indirectly influence the market for the future development of additional commercial establishments (i.e. restaurants, hotels, bike shops) in the vicinity of certain areas along the project corridor. This potential is limited to a few areas along the project corridor since most of the Trail is located in less developed areas of the County. Therefore, this indirect economic growth effect would be minor.

FORTAG would also directly generate short-term employment during construction of the Trail; however, jobs created by this additional activity would likely be filled by the local workforce and would not result in a significant source of employment or economic growth for the region.

FORTAG would not directly induce economic growth, but has the potential to indirectly induce a limited amount of economic growth where the project corridor would traverse existing communities within the cities of Marina, Monterey, Seaside, and Del Rey Oaks and the CSUMB campus, including

areas that contain commercial establishments and/or points of interest. However, it should be recognized that the ultimate extent of urban expansion in the Monterey Bay region will depend largely on a variety of other factors, including market forces and land use policies. Because FORTAG would not alter existing land use patterns or policies, nor generate substantial new visitors to the area, this effect would be negligible. In addition, FORTAG would not affect long-term employment opportunities or increase the region's population. Therefore, growth inducement impacts associated with FORTAG would be less than significant.

5.1.2 Removal of Obstacles to Growth

FORTAG would result in the construction of a new multi-use trail that would enhance connections between the former Fort Ord, Monterey Peninsula, and Salinas Valley communities by providing an active transportation artery for commuting and recreational use. All lighting at select sections of FORTAG would be solar-powered and would, therefore, not require the extension of existing electric utilities. Utilities for water would not be extended throughout the project corridor since FORTAG would not provide restrooms or managed landscaping on the Trail. No new roads would be required to serve FORTAG, as the proposed alignment would utilize existing built trails and roadways where possible to minimize impact to the natural environment.

Due to the nature of FORTAG as a multi-use trail, expansion or development of new infrastructure would not be required. As such, FORTAG would not remove an obstacle to growth. This impact would be less than significant.

5.2 Irreversible Environmental Effects

Section 15126.2(c) of the *CEQA Guidelines* requires a discussion of significant irreversible environmental changes that would occur as a result of a proposed project. This includes analysis of the use of non-renewable resources and irreversible environmental changes. In general, non-renewable resources imply energy resources, but may also pertain to the permanent loss of agricultural, biological, mineral, or other natural resources.

The use of non-renewable resources during short-term construction and long-term operation of FORTAG may be irreversible and irretrievable. Implementation of FORTAG would result in the irretrievable and irreversible commitment of non-renewable natural resources, including energy resources such as petroleum, coal, water resources, agricultural resources, and mineral resources used for construction materials, such as gravel, sand, asphalt, and metals.

Construction and operation of FORTAG would result in the permanent loss of fossil fuels for the production of petroleum or natural gas to fuel construction and maintenance vehicles, and to provide electricity for construction lighting. As noted in **Section 4.3, Air Quality**, an estimated 42,720 cubic yards (CY) of aggregate base (35,000 CY) and asphalt concrete (7,720 CY) are expected to be used to construct the trail. Aggregate base is actively mined in the Monterey Bay area which is estimated to meet demand for 41 to 50 years (California Geological Survey 2012), and supplies for FORTAG are expected to come from local sources. The demand created by the construction of FORTAG would not represent a significant impact on that supply.

As discussed in **Section 4.16, Utilities and Service Systems**, operation of FORTAG would not generate water demand since FORTAG does not include restrooms or irrigation systems in the project corridor. As noted in **Section 2, Project Description**, all lighting on select sections of FORTAG would be solar-powered and would, therefore, not require the extension of existing electric utilities

Construction and maintenance of FORTAG would consume building materials and energy, some of which are non-renewable resources. However, by providing opportunities for the use of active transportation modes, implementation of FORTAG may help reduce long-term dependence on automobiles and non-renewable petroleum resources. Consequently, FORTAG may have beneficial impacts related to the long-term use of non-renewable resources. Because of this potentially beneficial long-term impact, the consumption of non-renewable resources during construction and operation of FORTAG would be justified. Anticipated energy consumption of FORTAG is analyzed in further detail under **Section 4.6, Energy**.

5.3 Significant and Unavoidable Effects

CEQA requires decision makers to balance the benefits of a proposed project against its unavoidable environmental risks in determining whether to approve a project.

The analysis contained in this EIR did not identify any significant and unavoidable impacts resulting from FORTAG. However, FORTAG would result in significant but mitigatable impacts for the following CEQA resource topics: aesthetics, agricultural and forestry resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, land use and planning, noise, public safety and services, tribal cultural resources, and wildfire.

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6 Alternatives

Section 15126.6 of the *CEQA Guidelines* requires that EIRs identify and evaluate a range of reasonable alternatives to a 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. CEQA does not require that an EIR present the alternatives analysis in the same level of detail as the assessment of the proposed project, and does not require that every conceivable alternative to a project be considered. Rather, an EIR must consider a reasonable range of potentially feasible alternatives that will foster informed decision making.

To develop a reasonable range of alternatives to the project, TAMC considered:

- Project objectives
- Significant impacts of proposed project
- Alternatives suggested during the scoping process
- Other alternatives suggested

Through this process, TAMC identified eight possible alternatives, including alternative alignments. Of these, four were dismissed from further consideration because they did not meet most project objectives or were not considered potentially feasible. The remaining four were identified as project alternatives to be evaluated in this EIR, including the No Project alternative required by CEQA.

This chapter includes a description of how the project alternatives were developed, which alternatives were considered but rejected from further evaluation, which alternatives were evaluated in comparison to FORTAG, and the identification of the environmentally superior alternative.

6.1 Development of Alternatives

Project alternatives considered were evaluated for their potential feasibility, their ability to achieve most of FORTAG's objectives, and their ability to reduce significant environmental effects. The following section provides an overview of FORTAG's objectives and identified significant impacts.

This section also presents the specific alternatives that were suggested during the scoping process and alternatives developed by TAMC to reduce potentially significant impacts, respond to responsible agency recommendations, and meet CEQA requirements.

6.1.1 Project Objectives

As described in Section 2.3, *Project Purpose and Objectives*, the purpose of FORTAG is to provide an accessible multi-use path for recreation and active transportation for residents and visitors.

FORTAG supports the following objectives:

1. Function as an active transportation artery for commuting and recreation, providing a safe, accessible, and separated alternative to motorized travel that reduces vehicle trips and associated emissions.

2. Connect people and disadvantaged communities to open space and recreational activities from their homes, workplaces, and hospitality bases.
3. Enhance connections between the former Fort Ord, Monterey Peninsula, and Salinas Valley communities, and provide additional opportunities for physical exercise and stress reduction for residents and visitors.
4. Utilize existing built trails and roadways where possible to minimize impact to the natural environment while maintaining gentle grades for accessibility and providing access to viewpoints.
5. Provide interpretative and educational opportunities for trail users to experience and learn about the historic military use of the former Fort Ord, biological and other natural resources, and the Monterey Bay coast.
6. Utilize public lands where possible and encourage the incorporation of the Trail into planning and future development.
7. Create economic benefits from associated retail, hospitality, and competitive events.

6.1.2 Significant Impacts of Proposed Project

As shown in **Table ES-2** in the **Executive Summary**, there are no significant and unavoidable project impacts. The project would result in significant but mitigatable impacts for the following CEQA resource topics: aesthetics, agricultural and forestry resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, land use and planning, noise, public safety and services, tribal cultural resources, and wildfire.

6.1.3 Alternatives Suggested during the Scoping Process

The FORTAG NOP was issued on June 13, 2019, and public scoping meetings were held on June 27, 2019 in the City of Seaside and City of Marina. The NOP, written comments received, and a summary of the comments are included in **Appendix A**. The scoping comments included the following suggested project alternatives, which are described further in **Section 6.2**.

- SR 218 Alternative – extend trail along SR 218 between Fremont Boulevard and Frog Pond Wetland Preserve
- SR 218 Overcrossing – cross SR 218 with an overcrossing instead of an undercrossing
- Widening South Boundary Road – extend trail along widened South Boundary Road instead of through shark-fin property
- Bicycles Excluded in Frog Pond Wetland Preserve – route bicyclists around Frog Pond

6.1.4 Other Alternatives Suggested

The following project alternatives respond to responsible agency recommendations and reduce potentially significant impacts.

- Increased Use of Existing Roadways – modify alignment in four areas to use existing roadways instead of separated trail
- Alignment Without Overcrossings – eliminate the two roadway overcrossings and route trail along existing roadways

- Frog Pond Wetland Preserve Northerly Alignment – utilize the existing path through northern portion of Frog Pond instead of southern portion
- No Project – evaluate no project construction and operation, as required by CEQA

As stated in the introduction, TAMC identified eight possible alternatives for consideration. Factors used to determine which alternatives would be eliminated from further evaluation in an EIR are: (1) failure to meet most of the basic project objectives, (2) infeasibility, or (3) inability to avoid significant environmental impacts (*CEQA Guidelines* Section 15126.6[c]). Of the eight alternatives considered, four were dismissed from further consideration because they did not meet most project objectives or were not considered potentially feasible, as described in **Section 6.2**; and four were identified as project alternatives to be evaluated in this EIR, as described in **Section 6.3**.

6.2 Alternatives Considered but Rejected

This section describes the four alternatives that were considered but eliminated from further evaluation. The alternatives considered were evaluated for their potential feasibility, their ability to achieve most of the project objectives, and their ability to reduce project impacts. **Table 6-1** lists the project objectives and identifies whether or not each of the alternatives meets the project objectives.

SR 218 Alternative

Under the SR 218 alternative, the Canyon Del Rey/SR 218 segment would remain on SR 218 after crossing Fremont Boulevard until the Trail reaches the Frog Pond Wetland Preserve (Frog Pond). Trail users would utilize roadway shoulders and existing Class II bike lanes on SR 218 instead of being separated from vehicle traffic. A Class I trail is not feasible on SR 218 from Fremont Boulevard to the Frog Pond because Class I trails must have a width of at least eight feet with a two-foot or greater shoulder on each side of the path. An additional foot of lateral clearance, for a total three-foot shoulder on each side of the path, is required by the Manual on Uniform Traffic Control Devices for installation of signage or other furnishings (Federal Highway Administration 2012). SR 218 does not have the necessary width to accommodate a Class I trail due to the constrained width of the roadway including minimal shoulder width. There is an approximately 500-foot section of SR 218 with adequate shoulder width to support a Class I facility. However, the Trail would not be contiguous on SR 218 with only 500 feet of Class I trail.

Trail users under this alternative would include bicycles only because bicyclists would be able to utilize the narrow SR 218 shoulder as a pathway. Therefore, this alternative would not meet the purpose of FORTAG to provide a multi-use recreational trail separated from roadways and accessible to people of all ages and abilities. This alternative would not meet the project objective to provide a separated alternative to motorized travel because there is not adequate space on SR 218 to provide a Class I facility. In addition, other Trail users, including pedestrians, would not be able to utilize a portion of the Trail along SR 218. There are physical constraints along SR 218 from Fremont Boulevard to the Frog Pond because the shoulder is not wide enough to construct pedestrian facilities that meet the Federal Highway Administration standards. The Canyon Del Rey/SR 218 segment would thus be noncontiguous under this alternative and would not meet the project objective to provide an artery for community and recreation because the alignment would not connect to the rest of the Trail for pedestrians and other Trail users.

Table 6-1 Project Objectives and Alternatives Considered but Rejected

Objective Number	Project Objective	Consistency with the Project Objectives				
		Proposed Project	SR 218 Alternative	SR 218 Overcrossing ¹	Widening of South Boundary Road	Bicycles Excluded in Frog Pond
1	Function as an active transportation artery for commuting and recreation, providing a safe, accessible, and separated alternative to motorized travel that reduces vehicle trips and associated emissions	Yes	No	Yes	No	No
2	Connect people to open space and recreational activities from their homes, workplaces, and hospitality bases	Yes	No	Yes	No	No
3	Enhance connections between Fort Ord, Monterey Peninsula, and Salinas Valley communities, and provide additional opportunities for physical exercise and stress reduction for residents and visitors	Yes	Yes	Yes	Yes	No
4	Utilize existing built trails and roadways where possible to minimize impact to the natural environment while maintaining gentle grades and providing access to viewpoints	Yes	Yes	Yes	Yes	Yes
5	Provide interpretative and educational opportunities for trail users to experience and learn about the historic military use of the former Fort Ord, biological and other natural resources, and the Monterey Bay coast	Yes	No	Yes	No	Yes
6	Utilize public lands where possible and encourage the incorporation of the Trail into planning and future development	Yes	Yes	Yes	Yes	Yes
7	Create economic benefits from associated retail, hospitality, and competitive events	Yes	No	Yes	No	Yes

¹ Although the Overpass for SR 218 alternative meets all project objectives it is not feasible to from a design perspective and would increase overall project impacts.

The SR 218 alternative would result in safety impacts for Trail users because SR 218 is a high-volume arterial and cannot accommodate a Class I bikeway. Trail users, specifically bicyclists, would be exposed to safety risks from vehicles traveling at high speeds (+45 mph), including semi-trucks, when using the SR 218 shoulder. TAMC prepared a SR 218 Corridor Study to improve SR 218 from SR 1 to SR 68. This corridor study is considering bike lanes along SR 218 where they are currently lacking. However, the Corridor Study does not include any new bike lanes from Fremont Boulevard to Carlton Boulevard where the Trail alignment would be located under this alternative. Therefore, Trail users would continue to be exposed to safety risks from traffic on SR 218.

In addition to the infeasibility of the SR 218 Alternative, the Active Transportation Program (ATP) funding awarded to a portion of FORTAG would not be provided for this alternative. TAMC has been awarded ATP funding by the California Department of Transportation (Caltrans) for the proposed alignment. The funding is contingent on implementation of the alignment as proposed in **Figure 2-4** in **Section 2, Project Description**. Moving the alignment onto SR 218 would not be consistent with the alignment proposed to Caltrans, who has already approved project funding. Therefore, under this alternative FORTAG would lose the ATP funding because the alternative alignment would not match the ATP grant submittal, and Caltrans would not likely accept the proposed design change.

In summary, the SR 218 alternative would not include a Class I trail on SR 218 because it would not be feasible. Therefore, this alternative would not meet the purpose and objectives of FORTAG because the SR 218 Alternative would not provide a safe multi-use recreational trail separated from roadways and accessible to people of all ages and abilities. The SR 218 alternative would permit bicycle use only on SR 218 and would not provide Trail access for pedestrians, children, or ADA accessibility. Finally, the FORTAG ATP funding would not be provided for this alternative. Therefore, because this alternative is not feasible, does not meet the purpose and objectives of FORTAG, and would not include ATP funding, it has been rejected and is not considered further in this section.

SR 218 Overcrossing

Under this alternative, the Canyon Del Rey/SR 218 segment of the Trail would cross SR 218 with an overcrossing instead of an undercrossing, which would require a 17-foot grade clearance. The proposed alignment in the vicinity of SR 218 through the City of Del Rey Oaks has been investigated with respect to physical opportunities and constraints. The specific location investigated for feasibility of constructing an overcrossing of SR 218 is from City property on the south to the Frog Pond Wetland Preserve property on the north, between Carlton Drive and General Jim Moore Boulevard. To provide adequate space for the overcrossing under this alternative, the footprint for the overcrossing would encroach into the Frog Pond. The overcrossing alternative would require extensive grading in environmentally sensitive areas to accommodate the 17-foot clearance in order to be ADA accessible. In addition, an overcrossing would substantially conflict with overhead utility lines, necessitating extensive and expensive relocations. Therefore, additional impacts to the Frog Pond, including impacts to biological resources, would occur to accommodate the overcrossing. Further, additional impacts to the Frog Pond under this alternative would occur during staging, equipment use, and utility relocation for project construction and to accommodate the space required for the overcrossing footing. In addition, an overcrossing would have a large visual impact to views along the roadway from the required size of the overcrossing.

In summary, because this alternative is not feasible from a design perspective and would increase impacts in the Frog Pond from a larger construction and operational footprint, it has been rejected and is not considered further in this section.

Widening South Boundary Road

This alternative would provide a straight alignment for the Ryan Ranch segment to connect to the Canyon Del Rey/218 segment by widening South Boundary Road north of Rancho Saucito Road. Under this alternative, South Boundary Road north of Rancho Saucito Road would be widened to provide a Class IV bicycle and pedestrian facility and connection to the Canyon Del Rey/SR 218 segment where it crosses South Boundary Road. The Ryan Ranch segment under this alternative would not bisect the City of Monterey's "shark-fin" property. Therefore, this alternative would have reduced impacts to biological resources because instead of constructing a new separated Class I trail, this alternative would widen an existing roadway. However, impacts to sensitive biological resources would still occur under this alternative because South Boundary Road would be widened onto undisturbed habitat. Although impacts to biological resources would still occur under this alternative, impacts to sensitive habitat would be minimized and overall disturbance would be reduced as compared to the project because the Ryan Ranch segment would be developed adjacent to an existing roadway.

Although the Widening of South Boundary Road alternative would reduce impacts to biological resources, it would not meet project objectives. For example, one of the objectives for FORTAG is to provide opportunities for Trail users to learn about the former Fort Ord, and this objective would not be met if the alignment is on South Boundary Road and avoids the former Fort Ord. The Ryan Ranch segment has been designed to serve commuters traveling to Ryan Ranch Business Park. While the Widening of South Boundary Road alternative would continue to serve this purpose, similar to the proposed alignment, it would not meet the other purpose of the project to provide a safe multi-use recreational trail separated from roadways and accessible to people of all ages and abilities.

Further, the Fort Ord Reuse Authority (FORA) is proposing to realign South Boundary Road and install a new roundabout at the intersection of South Boundary Road and General Jim Moore Boulevard. FORA's proposed realignment would include the installation of a pedestrian and bicycle path on the south side of the realigned South Boundary Road toward Ryan Ranch Business Park.

In summary, this alternative for widening South Boundary Road to accommodate the Trail is not sensible given that a realignment is planned for the roadway, and that a similar trail is already planned. While this alternative would reduce impacts to biological resources from constructing an off-road trail, this alternative does not meet the purpose and objectives of FORTAG. Therefore, this alternative has been rejected and is not considered further in this section.

Bicycles Excluded in Frog Pond Wetland Preserve

The Bicycles Excluded in Frog Pond Wetland Preserve alternative would prevent the use of bicycles in the Frog Pond, which is part of the Canyon Del Rey/SR 218 segment. The portion of the Trail in the Frog Pond area would accommodate pedestrians only, and bicycles would be routed around the Frog Pond, using Carlton Drive to Plumas Avenue or by staying on SR 218. Under this alternative, the Frog Pond portion of the Canyon Del Rey/SR 218 segment would still be constructed, including undercrossings beneath SR 218 and General Jim Moore Boulevard, but would be reduced to a five-foot width (compared to eight feet for the proposed project) to only accommodate pedestrians. The narrower Trail in the Frog Pond would proportionally reduce impacts to biological resources in the Frog Pond including wetlands, sensitive species, and other sensitive habitats.

Although this alternative would reduce biological resources impacts, excluding bicycles from the Frog Pond would not meet several of the project objectives. With pedestrians only allowed on the portion of the Canyon Del Rey/SR 218 segment in the Frog Pond, bicyclists would reroute to State

Route 218 using South Boundary Road and General Jim Moore Boulevard. Under this alternative, bicyclists would not have direct access to Class I trail segment through the City of Del Rey Oaks. Bicyclists would need to use existing Class II bike lanes on Canyon Del Rey Boulevard/SR 218 to access the Trail between Fremont Boulevard and General Jim Moore Boulevard. Bicyclists would ride on the shoulder and be exposed to vehicle traffic on Canyon Del Rey Boulevard/SR 218 at Fremont Boulevard under this alternative in order to connect to FORTAG.

In summary, this alternative fails to meet the project objectives to function as a continuous trail for commuting and recreation, providing a safe, accessible, and separated alternative to motorized vehicle travel. Bike riding on Class II bike lanes next to high-volume, high-speed highway traffic is less safe than riding on a separated Class I bike trail, especially for impaired or younger riders. In addition, this alternative would not meet the project objectives to connect people to open space and recreational activities because it would prevent bicyclists in the Frog Pond. While this alternative would reduce impacts to biological resources, this alternative does not meet the purpose and objectives of FORTAG and, therefore, has been rejected and is not considered further in this section. Please see **Alternatives 2 and 4** described below, which provide options for avoiding and reducing impacts to the Frog Pond.

Table 6-3 provides a summary comparison of the development characteristics of the FORTAG project and each of the alternatives considered. Detailed descriptions and the potential environmental impacts of each alternative are analyzed in **Section 6.3**.

6.3 Alternatives Evaluated in Draft EIR

This section describes the following four alternatives that are included for more detailed consideration and evaluation in the Draft EIR, based on meeting most of the basic project objectives and reducing potentially significant impacts:

- Alternative 1 – No Project
- Alternative 2 – Increased Use of Existing Roadways
- Alternative 3 – Substitute Crossings
- Alternative 4 – Frog Pond Wetland Preserve Northerly Alignment

Table 6-2 lists the project objectives and identifies whether or not each of the alternatives meets the project objectives. **Table 6-3** provides a comparison of the alternatives' characteristics relative to the proposed project.

Table 6-2 Project Objectives and Alternatives Evaluated in Draft EIR

Objective Number	Project Objective	Consistency with the Project Objectives			
		Alternative 1: No Project	Alternative 2: Increased Use of Existing Roadways Alternative	Alternative 3: Substitute Crossings	Alternative 4: Frog Pond Northerly Alignment
1	Function as an active transportation artery for commuting and recreation, providing a safe, accessible, and separated alternative to motorized travel that reduces vehicle trips and associated emissions	No	Yes*	Yes	Yes
2	Connect people to open space and recreational activities from their homes, workplaces, and hospitality bases	No	Yes*	Yes	Yes
3	Enhance connections between Fort Ord, Monterey Peninsula, and Salinas Valley communities, and provide additional opportunities for physical exercise and stress reduction for residents and visitors	No	Yes*	Yes	Yes
4	Utilize existing built trails and roadways where possible to minimize impact to the natural environment while maintaining gentle grades and providing access to viewpoints	No	Yes	Yes	Yes
5	Provide interpretative and educational opportunities for trail users to experience and learn about the historic military use of the former Fort Ord, biological and other natural resources, and the Monterey Bay coast	No	Yes*	Yes	Yes
6	Utilize public lands where possible and encourage the incorporation of the Trail into planning and future development	No	Yes	Yes	Yes
7	Create economic benefits from associated retail, hospitality, and competitive events	No	Yes	Yes	Yes

*The alternative would meet the objective but to a lesser extent than the proposed project.

Table 6-3 Comparison of Project Alternatives' Characteristics

Feature	Proposed Project	Alternative 1: No Project	Alternative 2: Existing Roadway Alignment	Alternative 3: Substitute Crossings	Alternative 4: Frog Pond Northerly Alignment
Total Trail Length (miles) ¹	27.8	0	22.7	29.2	27.9
Difference (miles)	–	-27.8	-5.1	+1.4	+0.13
% Change	–	-100%	-18%	+5%	+4%
Segments Included (Yes/No)					
Northern Marina	Y	N	Y	Y	Y
Northern Loop	Y	N	Y	Y	Y
CSUMB Loop North	Y	N	Y	Y	Y
CSUMB Loop South	Y	N	Y	Y	Y
National Monument Loop	Y	N	Y	Y	Y
Canyon Del Rey/SR 218	Y	N	Y	Y	Y
Ryan Ranch	Y	N	N	Y	Y
Number of Crossings²					
Undercrossing	4	0	2	4	4
Overcrossing	2	0	2	0	2
Roundabout	4	0	4	4	4

¹The total trail length shown in this table does not include the length of the alignment options included in the FORTAG project analysis.

²Does not include project options.

The evaluation includes all environmental topics addressed in **Sections 4.1 to 4.18**, although at a more general level to compare the merits of the alternatives to the proposed project, as allowed by CEQA (Guidelines 15126.6[d]). **Table 6-4**, located at the end of this chapter, presents a comparison of the impacts of the proposed project to the impacts of each of the alternatives.

6.3.1 Alternative 1: No Project

Description

CEQA requires analysis of a No Project alternative (**Alternative 1**) to allow decision makers to compare the impacts of approving a project with the impacts of not approving a project (CEQA Guidelines Section 15126.6[e]). The no-project analysis must discuss the existing conditions at the time the Notice of Preparation is published, 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. If future uses of the land are predictable, such uses should be discussed as possible no-project conditions.

As such, under the No Project alternative, FORTAG would not be constructed as planned in northwestern Monterey County, generally surrounding the cities of Seaside and Marina and the California State University, Monterey Bay (CSUMB) campus. There would be no new 28-mile trail or trail amenities; no new undercrossings, overcrossings, or roundabouts; and no improvements to existing, informal parking areas. It is expected these existing parking areas and other existing trails in the area (i.e., outside of and crossing through the project corridor) would continue to be used as they currently have been by people accessing portions of the former Fort Ord, including by mountain bikers and equestrians.

Because the project would not be constructed, there would be no new connections to the existing Monterey Bay Coastal Rec Trail, portions of which are under the jurisdiction of California State Parks, or to the North Fremont Bicycle and Pedestrian Project in the City of Monterey. The existing unpaved hiking trail within the Frog Pond Wetland Preserve in the City of Del Rey Oaks would not be modified.

Impact Analysis

The impact analysis for the No Project alternative focuses on the environmental impacts of leaving the FORTAG corridor “as is” and not constructing the Trail, trail amenities, or connectors (undercrossings, overcrossings, and roundabouts). The No Project alternative would generally have less than significant or no environmental impacts in comparison to the FORTAG project. However, the No Project alternative would not meet any of the project objectives, as shown in **Table 6-2**.

Aesthetics

Under the No Project alternative, it is reasonable and foreseeable that the current visual character and quality of the FORTAG corridor and adjacent lands east of SR 1 would remain in current conditions. There would be no construction-related visual impacts and no development of the Trail, amenities, or connectors on the project and optional alignments. There would be no new Trail or overcrossings that would alter scenic views, nor increased litter in the FORTAG corridor or surrounding lands that could adversely affect public views or visual quality. However, people would continue to use existing parking areas and trails located near and extending through parts of the FORTAG corridor to access existing points of interest. This continued use could result in minor alterations to the visual character of the FORTAG corridor and adjacent lands, though the impacts would be substantially similar to existing conditions. Thus, the impact to aesthetics would be less than significant under the No Project alternative, and impacts would be reduced in comparison to the proposed project.

Agriculture and Forestry Resources

Under the No Project alternative, it is reasonable and foreseeable that most agricultural uses in and adjacent to the FORTAG corridor would continue. However, there would be some conversion of Important Farmland from active agriculture to non-agricultural use with development of cumulative projects as listed in **Table 3-1** in **Section 3**, *Environmental Setting*. This alternative would result in no net loss of Important Farmland. Additionally, there would be no disruption to farm-related infrastructure from construction and no new or additional conflicts between agricultural operations and trail users. Any ongoing conflicts, between agricultural operations and trespassers would be expected to continue similar to existing conditions. There would be no fencing or no trespassing signs installed, which might have deterred people from entering agricultural lands and reduced some of the existing concerns or conflicts. Without the FORTAG project increasing the potential for

such conflicts, the impact to agricultural resources would be less than significant under the No Project alternative, and impacts would be reduced in comparison to the proposed project.

Air Quality

Under the No Project alternative, there would be no construction-related emissions that would expose sensitive receptors to pollutant concentrations. However, there would be a slight increase in operational emissions as compared to the proposed project because FORTAG would not be developed as an alternative to motorized travel that reduces vehicle trips and associated emissions. Overall, air quality impacts would be less than significant under the No Project alternative, and impacts would be similar to the proposed project.

Biological Resources

Under the No Project alternative, there would be no construction in or adjacent to candidate, sensitive, or special status species or habitat. Thus, there would be no construction-related impacts or direct adverse effects from use of the Trail to listed species and their habitat, such as the Smith's blue butterfly, California red-legged frog, California tiger salamander, coast range newt, two-striped garter snake, Northern California legless lizard, western pond turtle, coast horned lizard, burrowing owl, nesting raptors (such as white-tailed kite, golden eagle, and Cooper's hawk), American badger, Monterey dusky-footed woodrat, and pallid and Townsend's big-eared bats. There would also be no impact to wildlife movement. However, there would be continued use of the existing parking areas and trails located near and extending through parts of the FORTAG corridor. This continued use could result in minor adverse effects to the aforementioned species and their habitats, which would be substantially similar to existing conditions. Thus, the impact to biological resources would be less than significant under the No Project alternative, and impacts would be reduced in comparison to the proposed project.

Cultural Resources

Under the No Project alternative, there would be no construction-related ground disturbance that could result in adverse effects to undiscovered buried archaeological or historical resources or human remains. However, there would be continued use of the existing parking areas and trails located near and extending through parts of the FORTAG corridor. The two prehistoric isolates identified during the pedestrian survey for FORTAG, which were determined to be ineligible for listing on the CRHR and not considered historic resources for the purposes of CEQA, would remain in place. The continued use of the FORTAG corridor could result in minor adverse effects to the prehistoric isolates, which would be substantially similar to existing conditions. Therefore, the impacts to cultural resources would be less than significant under the No Project alternative, and the impacts would be reduced in comparison to the proposed project.

Energy

Under the No Project alternative, there would be no construction-related or operational energy use that would result in wasteful energy use, or impact any local plans for renewable energy or energy efficiency. Therefore, there would be no impact to energy under the No Project alternative, and impacts would be reduced in comparison to the proposed project.

Geology and Soils

Under the No Project alternative, there would be no construction-related ground disturbance (grading, excavation, soil compaction, slope modification) resulting in substantial soil erosion or loss of top soil. There would be no new trails or new trail users that could be exposed to increased risk of injury from liquefaction or landslides. The use of existing trails located near and extending through parts of the FORTAG corridor could result in soil erosion and loss of topsoil from continued use of unstable and/or unofficial trails. Additionally, existing trail users could be exposed to risks from seismic-related groundshaking, liquefaction, or landslides in certain areas in the FORTAG corridor. However, these impacts would be the same as existing conditions. Therefore, the impact to geology/soils would be less than significant under the No Project alternative, and impacts would be reduced in comparison to the proposed project.

Greenhouse Gas and Climate Change

Under the No Project alternative, there would be no construction-related or operational emissions that would contribute a significant amount of GHG emissions. Emissions from vehicles driven to existing parking areas in the vicinity of the FORTAG trail would continue, which would be substantially similar to existing conditions. Existing conditions within the FORTAG corridor would not hinder the implementation of any applicable state or local GHG reductions plans. However, if the FORTAG project is not implemented, TAMC's regional transportation goal of increasing bicycle and pedestrian use by making active transportation modes readily available in order to reduce regional vehicle miles travels would not be met as stated in TAMC's Active Transportation Plan for Monterey County (2018), which may result in existing conditions having greater GHG emissions/climate change impact. Regardless, it would be speculative to conclude that such tradeoffs would result in significantly worse impacts under existing conditions. Therefore, the impact to GHG emissions/climate change would be less than significant under the No Project alternative, and impacts would be similar to the proposed project.

Hazards and Hazardous Materials

Under the No Project alternative, there would be no construction-related activities that could disturb utilities or contaminated soil that could potentially expose the public or environment to hazardous materials. Further, without FORTAG, there would be no increased exposure of trail users and maintenance personnel to pesticides and other hazardous materials from existing agricultural operations and former military operations adjacent to the Trail. However, the continued use of existing parking lots and trails located near and extending through parts of the FORTAG corridor would result in the continued exposure of existing users to pesticides and hazardous chemicals from routine agricultural operations, risk of hazardous materials from former military uses, as well as roadway accidents that involve hazardous materials. This exposure would be similar to existing conditions. Therefore, the impact for hazards and hazardous materials would be less than significant under the No Project alternative, and impacts would be reduced in comparison to the proposed project.

Hydrology and Water Quality

Under the No Project alternative, there would be no ground disturbance and no new trails. Thus, there would be no associated potential increase of pollutant discharges to Waters of the State, alterations to drainage patterns in the FORTAG corridor through the introduction of new impervious surfaces, or structures (trail, overcrossings, undercrossings, and roundabouts) in a 100-year flood

hazard area. The continued use of existing parking lots and trails located near and extending through parts of the FORTAG corridor would result in the continued exposure of existing users to inundation by tsunami near the Monterey Bay coastline. However, this risk is the same as current conditions. Therefore, the impact to hydrology and water quality would be less than significant under the No Project alternative, and impacts would be similar to the proposed project.

Land Use and Planning

Under the No Project alternative, there would be no new trail and thus no potential to physically divide a community. However, TAMC goals to increase active transportation options and recreational trail networks as stated in TAMC's Active Transportation Plan for Monterey County (2018), as well as other County and underlying jurisdictions' policies promoting the construction of multi-use trails and active transportation alternatives, would not be achieved. Regardless, not implementing the FORTAG project would not result in direct physical effects on the environment. Therefore, the impact to land use and planning would be less than significant under the No Project alternative, and impacts would be similar to the proposed project.

Noise

Under the No Project alternative, there would be no new trail construction and therefore no exposure of persons (rural and urban residences, and public and institutional uses along the alignment) to a substantial temporary increase in noise levels and ground-borne vibration, nor to any permanent increases in noise from trail use and traffic at existing parking areas in the vicinity of the FORTAG alignment. Noise from pile drivers and drills to install new overcrossings would not occur under this alternative. The continued use of existing parking lots and trails located near and extending through parts of the FORTAG corridor would result in continued noise from trail users (e.g., talking), which would be similar to existing conditions. Therefore, the noise impact would be less than significant, and impacts would be reduced in comparison to the proposed project.

Public Safety and Services

Under the No Project alternative, there would be no new trail users and thus, no increase in calls from trail users for additional emergency response, fire or police protection services, or other public services and thus no need for new facilities (e.g., police or fire stations). Therefore, there would be no impact to public safety and services under the No Project alternative, and impacts would be reduced in comparison to the proposed project.

Transportation

Under the No Project alternative, FORTAG would not be constructed, and there would be no new alternative to motorized travel that reduces vehicles trips and enhances connections in Monterey County. Thus, the No Project alternative would not support plans and policies promoting multimodal transportation and/or an inland trail network according to TAMC's Regional Transportation Plan, as well as the County's General Plan, Fort Ord Habitat Management Plan and Base Reuse Plan, and adopted General Plans of the underlying jurisdictions. Additionally, vehicle travel would remain similar to existing conditions, as well as to conditions with the proposed project because, as describe for Impact T-2 in **Section 4.14, Transportation**, pedestrian and bicycle facilities are unlikely to lead to a substantial or measureable increase in vehicle travel. A No Project alternative would not create a substantial impact compared to existing conditions. Therefore, the

impact to transportation/circulation would be less than significant under the No Project alternative, and impacts would be similar to the proposed project.

Tribal Cultural Resources

Under the No Project alternative, there would be no construction-related ground disturbance that could adversely affect undiscovered buried tribal cultural resources. Therefore, there would be no impact to tribal cultural resources under the No Project alternative, and impacts would be reduced in comparison to the proposed project.

Utilities and Service Systems

Under the No Project alternative, there would be no new trails or amenities that could generate wastewater, water demand or solid waste, or that would alter or create the need for storm drainage facilities. The existing parking areas and trails in parts of the FORTAG corridor would continue to be used, which would generate similar levels of solid waste, without the benefit of additional trash and recycling receptacles that would be included in the FORTAG project. Waste generation is not expected to increase beyond existing conditions in parts of the FORTAG corridor used for recreation. As a result, local landfill capacity would not be affected, and applicable regulations would not be violated. Therefore, the impact to utilities and services systems would be less than significant under the No Project alternative, and impacts would be similar to the proposed project.

Wildfire

Under the No Project alternative, there would be no new trails or trail users. Areas designated as High and Very High Fire Hazard Severity Zones would continue to exist in the FORTAG corridor, and adjacent areas would be exposed to the same risks that currently exist. Therefore, the impact of wildfire risks would be less than significant under the No Project alternative, and impacts would be reduced in comparison to the proposed project.

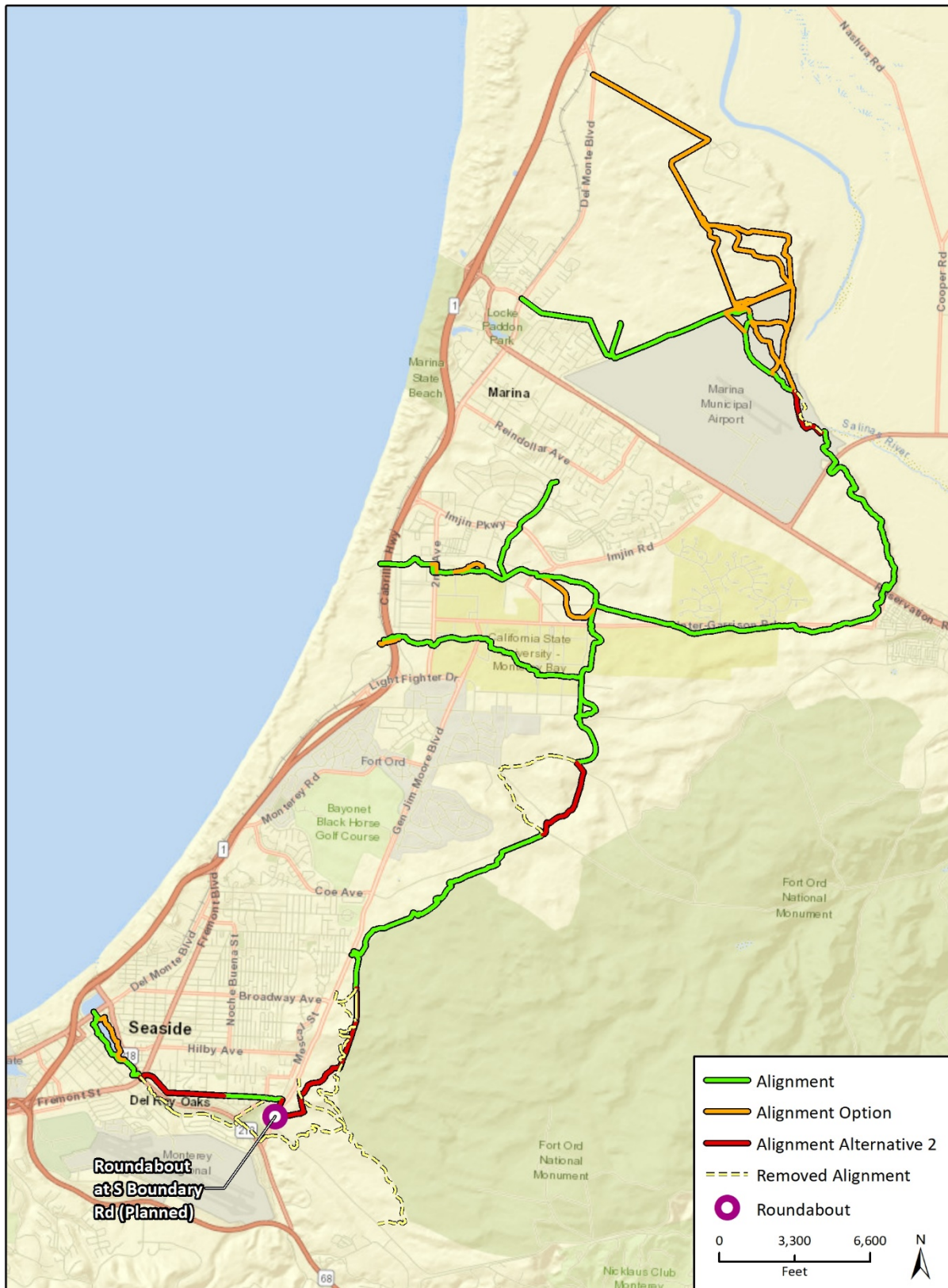
6.3.2 Alternative 2: Increased Use of Existing Roadways

Description

The Existing Roadway Alignment alternative (**Alternative 2**) would modify the alignment to reduce impacts to natural resources, primarily sensitive habitat, by increasing the use of existing roadways in select areas of the FORTAG corridor. As a result, four specific areas on the FORTAG alignment would be modified, as shown in **Figure 6-1** and as described below:

- In the Northern Loop segment, immediately north of the Marina Municipal Airport and approximately 0.65 mile northwest of Blanco Road, the alignment would be modified to follow an existing unnamed road and an existing unpaved trail for approximately 0.5 mile. This alternative alignment would connect back to the proposed FORTAG alignment approximately 0.23 mile northwest of Blanco Road. The purpose of this alternative alignment is to minimize impacts to natural habitat adjacent to the Salinas River, located to the northeast of the alignment.

Figure 6-1 Alternative 2, Increased Use of Existing Roadways



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Fig 6-1 Alternatives

- In the northern portion of the National Monument Loop segment, near the Central Coast Veterans Cemetery, the alignment would be modified to utilize an existing unpaved trail between Parker Flats Cut Off Road southeast of 8th Avenue on the north to Parker Flats Cutoff Road just north of its connection with Eucalyptus Road on the south, travelling in a more direct north-south direction than the proposed alignment. The length of this alternative alignment would be approximately 0.8 mile. The current proposed alignment looping west from 8th Avenue/Parker Flats Cutoff Road to the intersection of Normandy Road and Parker Flats Cut Off Road and then southeast toward Eucalyptus Road would be eliminated. Proposed equestrian side paths in this portion of the alignment would also be eliminated, as these would have been associated with sections of the Trail now removed. The purpose of this modification is to utilize an existing unpaved path and minimize impacts to natural habitat in this area.
- In the southern portion of the National Monument Loop segment, east of General Jim Moore Boulevard, the alignment would be modified to utilize more existing roadways and trails, beginning approximately 0.23 mile northeast of the General Jim Moore Boulevard/Broadway Avenue intersection, travelling south along an existing unnamed road (referred to as Blue Line Road by the BLM, U.S. Army, and local jurisdictions) for approximately 0.65 mile and then southwest toward Plumas Avenue in the City of Seaside along existing trails. Connections to Broadway Avenue and Kimball Avenue in the City of Seaside would be retained, but the effect would be to eliminate multiple curves in the trail proposed to maintain gentle grades and access to scenic viewpoints. The National Monument Loop segment would connect to the Canyon Del Rey/SR 218 segment at a future roundabout at the intersection of General Jim Moore Boulevard and the planned realigned South Boundary Road. The purpose of this alternative alignment is to utilize existing disturbed roads and trails and minimize impacts to natural habitat in the area.
- The Canyon Del Rey/SR 218 segment east of Fremont Boulevard would be eliminated and replaced with an alignment that would follow the PG&E easement on Plumas Avenue in the City of Seaside from Fremont Boulevard on the west to General Jim Moore Boulevard on the east. This portion of the alignment would be located behind the back side of residences and adjacent to the south side of Portola Drive, and would coincide with the proposed FORTAG alignment along Plumas Avenue from Del Rey Woods Elementary to the eastern terminus of Plumas Avenue. From there, the alternative alignment would follow the west side of General Jim Moore Boulevard to the south for approximately 800 feet before crossing General Jim Moore Boulevard via a planned roundabout at the future (relocated) intersection with South Boundary Road. This alternative alignment would bypass the City of Del Rey Oaks, eliminating the proposed Trail through Work Memorial Park, Angelus Way, Del Rey Oaks Park, and the Frog Pond Wetland Preserve. There would also be no undercrossing at General Jim Moore Boulevard, no at-grade crossing at South Boundary Road, and no trail extending northeast to connect to the proposed Ryan Ranch segment. The purpose of this modification is to eliminate impacts to Frog Pond Wetland Preserve and natural habitat east of General Jim Moore Boulevard, as well as community concerns regarding the Trail alignment through the City of Del Rey Oaks and the Frog Pond property.
- The Ryan Ranch segment would be eliminated. The purpose of eliminating this segment is to avoid impacts to habitat in the area and reduce the overall level of disturbance.

This alternative would total 22.7 miles, which equates to an approximately 18 percent reduction in the miles provided under the proposed FORTAG alignment. This alternative would also reduce the amount of equestrian side paths and greenway buffers included with the proposed trail in select areas due to the alignment rerouting along existing roadways and potential spatial constraints. The

total area of disturbance would be approximately 37.8 acres, which would be a reduction of approximately 17.6 acres (or approximately 32 percent reduction) from the proposed FORTAG project.

Though the trail would still serve pedestrians and bicyclists of all abilities and provide equestrian paths in select areas where space allows, **Alternative 2** may eliminate the key vista point along the National Monument Loop segment and eliminate the trail connection to Ryan Ranch Business Park, a large regional employment center.

The remainder of the **Alternative 2** alignment, such as the CSUMB North and CSUMB South segments, would be the same as the proposed FORTAG project. The typical trail cross-section would be 12 to 16 feet wide. Portions of the trail would include equestrian paths and a greenway buffer where space allows, as described in **Section 2, Project Description**, for the proposed FORTAG project. The connections to the existing Coastal Rec Trail would also be included as part of **Alternative 2**, along with the roundabouts and undercrossings proposed along the Northern Loop, CSUMB Loop North, CSUMB Loop South, National Monument Loop, and Canyon Del Rey/SR 218 segments. **Alternative 2** would contain the same trail amenities and features as the proposed FORTAG project (i.e., rest areas, benches, and shade structures).

As shown in **Table 6-2**, **Alternative 2** would meet all the project objectives similar to the proposed project. **Alternative 2** would function as a safe and accessible active transportation artery for people of all ages and abilities and provide interpretive and educational opportunities to Trail users. **Alternative 2** would meet the project objectives to connect people to open space and recreation, enhance connections throughout Monterey County while providing opportunities for physical exercise, and create economic benefits. Additionally, this alternative would meet the project objectives of utilizing existing built trails and roadways and incorporation of the Trail into future development to a greater extent than the proposed project. However, it would do so to a lesser extent than the proposed project because the Ryan Ranch segment would be removed, and more of the Trail would be on existing roadways.

Impact Analysis

The impact analysis presented below focuses on the environmental impacts of implementing **Alternative 2** in comparison to the proposed FORTAG project. For most environmental topics, the overall impacts would be similar in nature but to a lesser extent, and biological impacts would be less when compared to the proposed FORTAG project due to the five-mile (approximately 18 percent) portion on existing roadways and thus reduction in new trails under **Alternative 2**. However, **Alternative 2** would not result in any changes to the significance determinations of the impacts identified for the proposed project.

Aesthetics

The aesthetics impact of **Alternative 2** would be similar to those identified for the proposed FORTAG project, since the location of the alignment is in the same general location as the FORTAG alignment. However, the key view point located along the National Monument Loop segment by the California Central Coast Veterans Cemetery (where the project alignment would run along the northern portion of Parker Flats Cut Off Road before venturing south of Parker Flats Cut Off Road and onto Eucalyptus Road), as shown in **Figure 4.1-1** in **Section 4.1, Aesthetics**, would be eliminated from the **Alternative 2** corridor. The other key viewpoints would remain the same as the proposed FORTAG project.

The undercrossings, overcrossings, roundabouts, and trail amenities included in the FORTAG project would also be included in **Alternative 2**. Therefore, **Alternative 2** would require the mitigation measures provided in **Section 4.1, Aesthetics**, to ensure the design of and materials used for trail connectors and amenities are compatible with the environment along the trail corridor, and to ensure all lighting fixtures are dark-sky compliant. The impact to aesthetics under **Alternative 2** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Agriculture and Forestry Resources

The agricultural resources impact of **Alternative 2** would be similar to those identified for the proposed FORTAG project. The four segments of **Alternative 2** that differ from the FORTAG project are not located near agricultural lands, as shown in **Figure 4.2-1** and **Figure 4.2-2** in **Section 4.2, Agriculture and Forestry Resources**. **Alternative 2** would convert the same amount of agricultural land as the FORTAG project and would require the same mitigation measures that are included in **Section 4.2** for the project. Therefore, the impact to agriculture and forestry resources under **Alternative 2** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Air Quality

Under **Alternative 2**, construction-related emissions would decrease due to the reduced trail length and increased use of existing roads, which would require less vegetation removal and grading for trail construction. **Mitigation Measure AQ-4** would still be required for **Alternative 2** in order to contain nuisance odors from dog waste. Therefore, the impact on air quality under **Alternative 2** would be less than significant with mitigation, and the impacts would be reduced in comparison to the proposed project.

Biological Resources

The biological resources impact of **Alternative 2** would be less than those identified for the proposed FORTAG project, due to the 17.6 acre (approximately 32 percent) reduction in new trail extending through undisturbed areas as a result of the modified alignment to utilize more existing roads. **Alternative 2** would not contain the following vegetation communities: Arroyo willow, chamise chaparral and black sage chaparral, and ephemeral pond. The following vegetation communities would have reduced disturbance and impact under **Alternative 2**: black sage scrub, California sagebrush scrub, coast live oak woodland, dune scrub, manzanita chaparral, and riparian woodland. Furthermore, **Alternative 2** would eliminate impacts to the Frog Pond Wetland Preserve as this area would be avoided entirely. The modified alignment would still result in impacts to sensitive species and habitat in other areas, as described in **Section 4.4, Biological Resources**. However, these impacts would be reduced and potentially eliminated for some species, given the increased use of existing disturbed roadways. **Alternative 2** would still require the same mitigation measures that are included in **Section 4.4** for the project, since the location of the remainder of the **Alternative 2** alignment is essentially the same as the FORTAG project and thus contains the same sensitive species and habitat areas. Therefore, the impact to biological resources under **Alternative 2** would be less than significant with mitigation, and the impacts would be reduced in comparison to the proposed project.

Cultural Resources

Impacts to cultural resources would be reduced under this alternative because there would be overall less ground disturbance. **Alternative 2** would route more of the Trail on existing roadways and would eliminate the Ryan Ranch segment resulting in less ground disturbance than the proposed project. Therefore, the likelihood of uncovering unanticipated archaeological resources would be reduced. **Alternative 2** would still require the **Mitigation Measure CUL-2**, which pertains to archaeological monitoring during construction of the trail segments and amenities to ensure proper handling of any previously unknown or undiscovered archaeological resources that may be encountered during ground-disturbing activities. Therefore, the impact to cultural resources under **Alternative 2** would be less than significant with mitigation, and the impacts would be reduced in comparison to the proposed project.

Energy

Alternative 2 would decrease energy demand for construction, due to the five-mile (approximately 18 percent) reduction in total new trail length. Like the proposed project, **Alternative 2** would not impact any local plans for renewable energy or energy efficiency and would be used as a form of active transportation that would likely result in a net decrease in fuel consumption compared to existing conditions. Therefore, the impact to energy under **Alternative 2** would be less than significant, and the impacts would be similar to the proposed project.

Geology and Soils

Under **Alternative 2** the area of impact would decrease due to the modified alignment along existing roads. Impacts to geology and soils would be reduced under this alternative because there would be overall less construction of new trails and reduced ground disturbance resulting in fewer impacts from erosion and loss of topsoil. **Alternative 2** would route more of the Trail on existing roadways and would eliminate the Ryan Ranch segment. There would be no undercrossing of General Jim Moore Boulevard under this alternative, and thus impacts associated with potential geologic hazards would be reduced. However, the overall reduction in trail length is approximately five miles, and the alignment would still cross through areas with the same geologic and soil features and hazards. As a result, **Alternative 2** would require the same mitigation measures that are included in **Section 4.7, Geology and Soils**. Thus, the geology and soils impacts under **Alternative 2** would be less than significant with mitigation, and the impacts would be reduced in comparison to the proposed project.

Greenhouse Gas Emissions/Climate Change

Alternative 2 would decrease in construction-related and operational GHG emissions due to the reduced length and overall level of disturbance, compared to the proposed project. Like the proposed project, **Alternative 2** would not impact any local GHG reduction and/or climate change plans, and would be used as a form of active transportation that would likely result in a net decrease in fuel consumption (and therefore, GHG emissions) compared to existing conditions. Therefore, the GHG impacts under **Alternative 2** would be less than significant, and the impacts would be reduced in comparison to the proposed project.

Hazards and Hazardous Materials

Hazards associated with **Alternative 2** would be reduced as compared to those identified for the proposed FORTAG project since the area of impact would decrease. With a reduced area of impact

and ground disturbance, exposure to hazardous materials would be reduced under this alternative. Specifically, Trail users would no longer be exposed to hazards associated with the Ryan Ranch segment including those that may be present from the area's previous use as U.S. Army training grounds. In addition, less construction for **Alternative 2** would result in reduced exposure to hazards for construction workers. However, these hazards would not be eliminated, and **Alternative 2** would require the same mitigation measures that are included in **Section 4.9, Hazards and Hazardous Materials**, to reduce impacts from exposure to hazardous materials. Therefore, the hazards and hazardous materials impacts under **Alternative 2** would be less than significant with mitigation, and the impacts would be reduced in comparison to the proposed project.

Hydrology and Water Quality

Under **Alternative 2** the area of impact would decrease due to the modified alignment along existing roads. Impacts to hydrology and water quality would be reduced under this alternative because there would be overall less construction of new trails, which would result in reduced impacts from stormwater runoff and water quality. The increased use of existing roadways would result in less new impervious surfaces and reduced impacts associated with increased stormwater runoff and potential for water quality degradation. The total area of disturbance would be reduced by approximately 17.6 acres, or approximately 32 percent less than the proposed FORTAG project. As a result, construction and operational water quality impacts would be reduced. However, **Alternative 2** would require the same mitigation measures that are included in **Section 4.10, Hydrology and Water**, because impacts to hydrology and water quality still have the potential to occur under this alternative. Therefore, the hydrology and water quality impacts under **Alternative 2** would be less than significant with mitigation, and the impacts would be reduced in comparison to the proposed project.

Land Use and Planning

Similar to the proposed project, **Alternative 2** would not physically divide an established community. **Alternative 2** would be subject to the same land use policies as the proposed project and would be consistent with applicable policies because this alternative would modify the project alignment to reduce biological resources by placing the alignment along existing roadways. Other aspects for **Alternative 2**, such as Trail width and project purpose, would remain similar to the proposed project. **Alternative 2** would be potentially inconsistent with one policy, the Draft Seaside 2040 fire projection policy, because much of the Trail under this alternative would remain in an identified Very High Fire Hazard Severity Zone. Mitigation measures identified throughout the EIR would apply under this alternative. The land use impacts under **Alternative 2** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Noise

Alternative 2 would reduce the overall alignment length to 22.7 miles and the area to disturbance to 37.8 acres. Therefore, construction noise impacts would be reduced in comparison to the proposed project because there would be less overall Trail development, but noise would not be eliminated. As such, noise mitigation measures would still apply under this alternative to reduce noise from pile driving and drilling for the proposed overcrossings. Operational noise impacts would be reduced under this alternative in the Ryan Ranch Business Park community because the Ryan Ranch segment is not included in this alternative. However, Trail use under this alternative would be similar to the proposed project resulting in similar operational noise impacts to nearby sensitive

receivers. Overall, the noise impacts under **Alternative 2** would be less than significant with mitigation, and the impacts would be reduced in comparison to the proposed project.

Public Safety and Services

Like the proposed project, **Alternative 2** would result in increased trail users along the corridor, which could result in increased calls for emergency response, law enforcement or fire protection, as well as increased litter and solid waste. As a result, **Alternative 2** would require the same mitigation measures that are included in **Section 4.13, Public Safety and Services**, for the proposed project, including ongoing maintenance, litter removal, and monitoring for an increase in service calls and adaptive management, use and patrolling of the trail. Therefore, the public safety and service impacts under **Alternative 2** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Transportation

Like the proposed project, **Alternative 2** would not conflict with applicable programs, plans, ordinances, or policies addressing regional or jurisdictional circulation systems, nor would the alignment result in inadequate emergency access. Additionally, from a transportation and circulation perspective, this alternative also provides an active transportation trail network that would enhance connections between the trail corridor communities of the former Fort Ord and the northern Monterey Peninsula region. However, **Alternative 2** would not include the Ryan Ranch segment, and thereby eliminate a major commuter connection to the Ryan Ranch Business Park. As a result, vehicle miles traveled under **Alternative 2** would be slightly greater than the proposed project. Therefore, the transportation impacts under **Alternative 2** would be slightly greater than the proposed project. Impacts would remain less than significant.

Tribal Cultural Resources

Impacts to tribal cultural resources would be reduced under **Alternative 2**, because there would be less overall ground disturbance, compared to the proposed project. **Alternative 2** would route more of the Trail on existing roadways and would eliminate the Ryan Ranch segment resulting in less ground disturbance than the proposed project. Therefore, the likelihood of uncovering unanticipated tribal cultural resources would be reduced. Implementation of **Mitigation Measure TCR-1**, which pertains to Native American monitoring during construction to ensure proper handling of any previously unknown or undiscovered tribal cultural resources that may be encountered with ground disturbing activities, would still apply under this alternative. Therefore, the tribal cultural resources impacts would be less than significant with mitigation, and the impacts would be reduced in comparison to the proposed project.

Utilities and Service Systems

Like the proposed project, **Alternative 2** would provide the same amenities for trail users and would not include bathrooms, water fountains, or other water supply infrastructure. Therefore, it would not require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities. **Alternative 2** would generate comparable amounts of construction and operational waste as the proposed project, though there would be a decrease in both categories of waste generation due to the five-mile (approximately 18 percent) reduction in new trails because **Alternative 2** uses more

existing roadways. Therefore, the impact to utilities and service systems under **Alternative 2** would be less than significant, and the impacts would be similar to the proposed project.

Wildfire

Wildfire hazards within the **Alternative 2** corridor would be similar to those identified for the proposed project because the wildfire severity zones in and around the alignment would remain the same, and because some portions of the trail (e.g., eastern portion of the Northern Loop segment) have steeper slopes and could put Trail users at risk from landslides. Like the proposed project, **Alternative 2** would require **Mitigation Measure GEO-1** to reduce landslide risks to select portions of the alignment that would be located on or near steep slopes. Therefore, the wildfire impact under **Alternative 2** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

6.3.3 Alternative 3: Substitute Crossings

Description

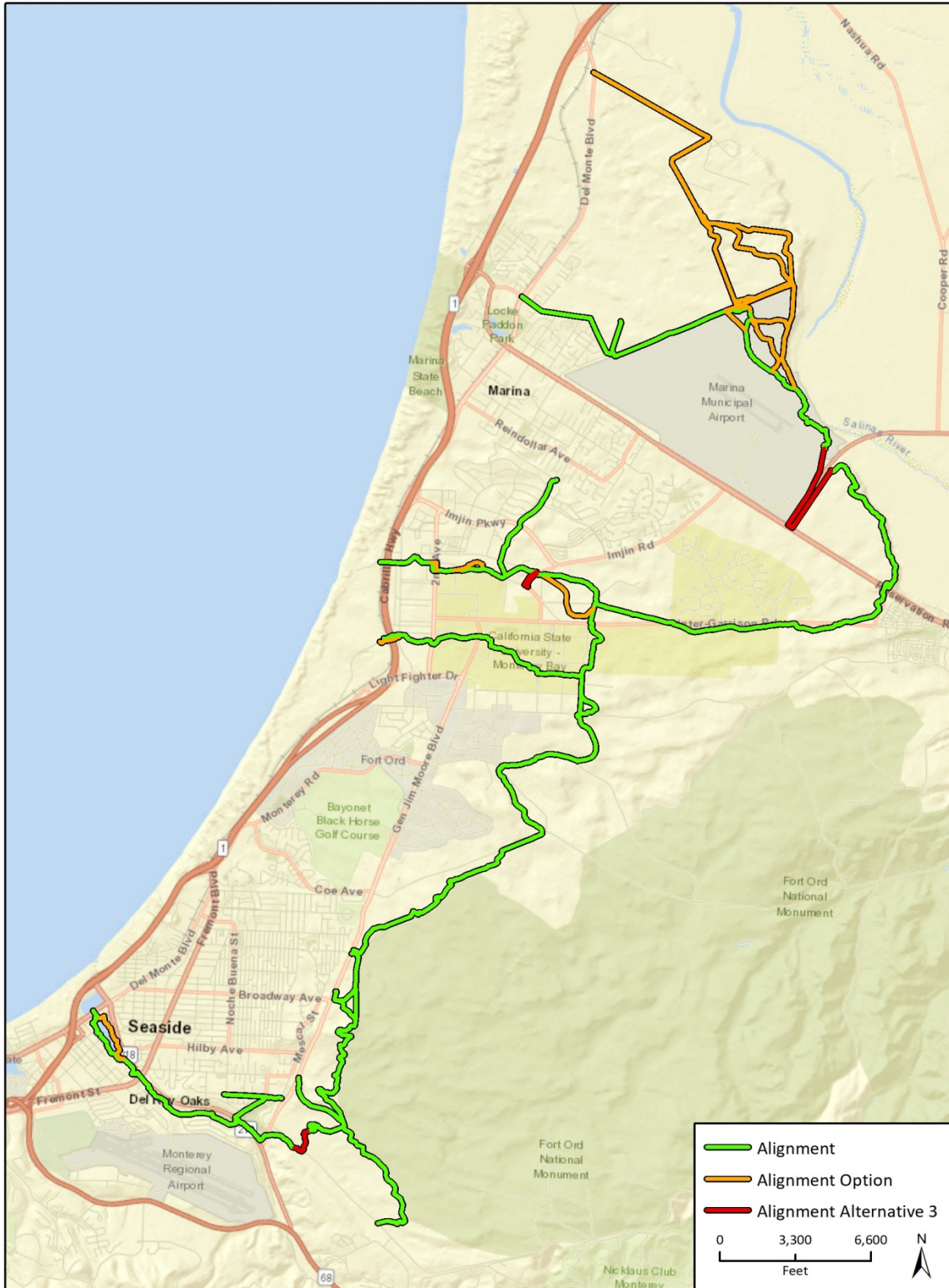
The Substitute Crossings alternative (**Alternative 3**) would modify the alignment to reduce aesthetic and noise impacts by eliminating the proposed overcrossings at Blanco Road in the Northern Loop segment and at Imjin Road in the CSUMB Loop North segment. The overcrossings would introduce a new visual feature and may require use of a pile driver or driller to construct. Instead, the alignment at Blanco Road and at Imjin Road would extend adjacent to the existing roadways to the nearest at-grade intersection crossing: at Reservation Road/Blanco Road and at 8th Street/Imjin Road, respectively, as shown in **Figure 6-2**.

Alternative 3 would also adjust the alignment at the South Boundary Road crossing within the Ryan Ranch segment, approximately 1,760 feet east of the South Boundary Road and General Jim Moore Boulevard intersection (compared to approximately 1,400 feet east for the proposed project). The South Boundary Road crossing under **Alternative 3** would connect to an existing, unofficial trailhead on the south side of South Boundary Road before connecting to the westerly remainder of the Ryan Ranch segment.

The alternative alignment at Blanco Road would require an additional 1.33 mile of new trail on the ground and at Imjin Road would require an additional 0.32 mile of new trail. The adjusted alignment at the South Boundary Road crossing in the Ryan Ranch segment would require an additional 0.04 mile of new trail than compared to the proposed project. With the elimination of the bridges themselves (and the run-up to the bridge on either side of Blanco Road) and the adjusted alignment for the South Boundary Road crossing, the total length of **Alternative 3** would be 29.2 miles, compared to 28 miles for the proposed project. This would equate to an approximate 1.4 mile or five percent increase in the mileage of trails provided under **Alternative 3** compared to the proposed project.

The rest of the **Alternative 3** alignment would remain the same as the proposed FORTAG project. The trail would accommodate pedestrians and bicyclists of all abilities, and typical trail cross-section would be 12 to 16 feet wide. Portions of the trail would include equestrian paths and a greenway

Figure 6-2 Alternative 3, Substitute Crossings



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Fig 6-2 Alternatives

buffer where space allows, as described in **Section 2, Project Description**, for the proposed FORTAG project. The connections to the existing Coastal Rec Trail would also be included as part of **Alternative 3**, along with the roundabouts and undercrossings proposed along the Northern Loop, CSUMB Loop North, CSUMB Loop South, National Monument Loop, and Canyon Del Rey/SR 218 segments. **Alternative 3** would contain the same trail amenities and features as the proposed FORTAG project (i.e., rest areas, benches, and shade structures).

As shown in **Table 6-2, Alternative 3** would meet all the project objectives.

Impact Analysis

The impact analysis presented below focuses on the environmental impacts of implementing **Alternative 3** in comparison to the proposed FORTAG project. For most environmental topics, the impacts would be similar, with some less and some more, but no substantial difference. However, the impacts under **Alternative 3** would be less for construction-related nuisance noise from pile drivers because such equipment would not be required with the elimination of the two overcrossings, and impacts would be less for aesthetics because there would be no introduction of the overcrossings as a new visual feature. **Alternative 3** would not result in any changes to the significance determinations of the impacts identified for the proposed project, except the impact for construction-related noise would be less than significant because no pile driving or drilling would be required for overcrossings.

Aesthetics

Alternative 3 would also adjust the alignment at the South Boundary Road crossing within the Ryan Ranch segment, approximately 1,760 feet southeast of the South Boundary Road and General Jim Moore Boulevard intersection (compared to approximately 1,400 feet southeast for the proposed project). The South Boundary Road crossing under **Alternative 3** would connect to an existing, unofficial trailhead on the south side of South Boundary Road before connecting to the westerly remainder of the Ryan Ranch segment.

The **Alternative 3** alignment would eliminate the two overcrossings along the proposed alignment, one over Blanco Road in the Northern Loop segment and one over Imjin Road in the CSUMB Loop North segment; and adjust the alignment and crossing at South Boundary Road in the Ryan Ranch segment. Under **Alternative 3**, the Trail alignment would extend adjacent to the existing roadways to the nearest at-grade intersection crossing in two locations: Reservation Road/Blanco Road in the Northern Loop segment and at 8th Street/Imjin Road in the CSUMB Loop North segment. Visual impacts from the proposed overcrossings, including introduction of a new prominent, non-natural structure, would not occur under this alternative. The aesthetics impacts for the crossing at South Boundary Road would be the same as for the proposed project, since no overcrossing or undercrossing structures would be included, and the at-grade crossing would simply be relocated approximately 360 feet further to the east. Aesthetics impacts would be reduced, but not to a less than significant level because **Alternative 3** would still include the remainder of the proposed undercrossings as shown on **Figure 2-11 in Section 2.4 Project Characteristics**, which could affect the view of the landscape by introducing a non-natural industrial feature that would change the localized visual character, as described in **Impact AES-1 in Section 4.1.6**. The remainder of the alignment under **Alternative 3** would have similar aesthetics impacts as the proposed project including lighting impacts. Mitigation is identified to address visual impacts through visually inobtrusive design and installation of dark sky-compliant lighting. Overall, the impact to Aesthetics

under **Alternative 3** would be less than significant with mitigation, and the impacts would be reduced in comparison to the proposed project.

Agriculture and Forestry Resources

Impacts to agricultural resources under **Alternative 3** would be similar to those identified for the proposed project. The two intersections that would eliminate the overcrossings and the adjusted alignment for the South Boundary Road crossing in **Alternative 3** are not located on or immediately adjacent to agricultural lands. **Alternative 3** would convert the same amount of agricultural land as the proposed project, and thus would require the same mitigation measures to reduce conflicts with agricultural land. Therefore, the impact to agriculture and forestry resources under **Alternative 3** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Air Quality

Under **Alternative 3**, construction-related emissions could slightly increase as compared to the proposed project because of the five percent increase in mileage from replacing the two overcrossings with trails extending adjacent to the nearest at-grade intersection crossing. However, construction-related emissions from **Alternative 3** would be similar to the proposed project because, although the trail would be five percent longer, construction of the overcrossings could require more intensive construction activities and associated emissions; the adjusted alignment for the South Boundary Road crossing would be similar to the proposed project; and because the rest of the proposed alignment would not change under this alternative. Operational emissions would remain the same as the proposed project, and **Mitigation Measure AQ-4** would still be required for **Alternative 3** to contain nuisance odors from dog waste. Therefore, the impact on air quality under **Alternative 3** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Biological Resources

Impacts to biological resources under **Alternative 3** would be similar to those identified for the proposed project. Although the area of impact would slightly increase due to the additional alignment replacing the two overcrossings, an associated increase in impacts to biological resources would be minimal because the additional new trail portions extending to at-grade crossings would be along existing roadways with minimal biological resources. The adjusted alignment for the South Boundary Road crossing would be similar in length as the proposed project, the crossing would be located in the same kind of habitat, and therefore, have similar impacts on biological resources as the proposed project. **Alternative 3** would require the same mitigation measures that are included in **Section 4.4, Biological Resources**, for the proposed project to minimize impacts from the rest of the new trail on biological resources. Therefore, impacts to biological resources under **Alternative 3** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Cultural Resources

Impacts to cultural resources under **Alternative 3** would be similar to, but slightly greater than, those identified for the proposed project, because the area of impact would slightly increase due to the additional alignment replacing the two overcrossings. However, the impacts from **Alternative 3** would not substantially increase the area of disturbance compared to the proposed project and

could be mitigated with the same mitigation as for the proposed project. **Alternative 3** would require the **Mitigation Measure CUL-2**, which pertains to archaeological monitoring during construction of the trail segments and amenities to ensure proper handling of any previously unknown or undiscovered archaeological resources that may be encountered during ground-disturbing activities. Therefore, the impact to cultural resources under **Alternative 3** would be less than significant with mitigation, and the impacts would be similar to, but slightly greater than, the proposed project.

Energy

Under **Alternative 3**, energy use during construction and operation of the Trail would be similar to the proposed project. Additional energy use would be required to construct the additional alignment replacing the two overcrossings. However, the amount of energy required to construct the five percent increase in Trail length would be similar to that used to construct the two overcrossings and proposed South Boundary Road crossing, and construction energy use would be minimal compared to the proposed project. Similar to the proposed project, **Alternative 3** would not conflict with any local plans for renewable energy or energy efficiency, and would be used as a form of active transportation that would likely result in a net decrease in fuel consumption compared to existing conditions. Therefore, the energy impact under **Alternative 3** would be less than significant, and the impacts would be similar to the proposed project.

Geology and Soils

Impacts to geology and soils under **Alternative 3** would be reduced as compared to the proposed project because the overcrossings would not be constructed. Rerouting the Trail along existing roadways to the nearest at-grade crossing, instead of constructing the overcrossings, would reduce the exposure of Trail users to seismic hazards and associated risk to structures because the number of structures would be reduced. Impacts to paleontological resources would be reduced under this alternative because there would no longer be extensive ground disturbance and excavation that exceeds ten feet below the ground surface, which may result in the destruction, damage, or loss of undiscovered paleontological resources. The adjusted alignment for the South Boundary Road crossing would have similar impacts on geology and soils as the proposed project. Overall, the geology and soils impacts under **Alternative 3** would be reduced as compared to the proposed project. However, the same mitigation measures, including a geotechnical investigation and construction monitoring for paleontological resources, would still apply. Therefore, the geology and soils impacts under **Alternative 3** would be less than significant with mitigation, and the impacts would be reduced in comparison to the proposed project.

Greenhouse Gas Emissions/Climate Change

Under **Alternative 3**, GHG emissions during construction and operation of the Trail would be similar to the proposed project. **Alternative 3** could result in additional emissions during project construction due to the new trail extending further to reach at-grade intersection crossings in lieu of the two overcrossings that are included in the proposed project. However, as described under the Air Quality analysis section, building the overcrossing would require more intensive construction and equipment, likely with comparable emissions as the extended trail. Any additional emissions associated with **Alternative 3** would not be a substantial increase compared to the proposed project. Similar to the proposed project, **Alternative 3** would not impact any local GHG reduction and/or climate change plans, and would be used as a form of active transportation that would likely result in a net decrease in fuel consumption (and therefore, GHG emissions) compared to existing

conditions. Therefore, the GHG/climate change impacts under **Alternative 3** would be less than significant, and the impacts would be similar to the proposed project.

Hazards and Hazardous Materials

Hazards within the **Alternative 3** corridor would be similar to those identified for the proposed project because the overall alignment would be the same except for the additional 1.65 miles of trail to eliminate overcrossings and the 0.04 mile increase from the adjusted alignment at the South Boundary Road crossing. Exposure to hazardous materials and the potential for hazardous material spills would be similar to the proposed project because majority of the alignment under this alternative would be the same as the proposed project. As a result, **Alternative 3** would require the same mitigation measures that are included in **Section 4.9, Hazards and Hazardous Materials**, for the proposed project. The hazards and hazardous materials impact under **Alternative 3** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Hydrology and Water Quality

Alternative 3 would have similar impacts on hydrology and water quality as those identified for the proposed project. Impacts under **Alternative 3** would be slightly greater due to the approximately 1.65 miles of additional trail needed to extend to at-grade intersection crossings that would replace the two overcrossings, and the 0.04 mile of additional trail for the adjusted alignment at the South Boundary Road crossing. The additional Trail length would result in a slight increase in new impervious surfaces resulting in more runoff, erosion, and reduced groundwater accumulation. However, hydrology and water quality impacts within the **Alternative 3** corridor would not be a substantial increase compared to the proposed project since site conditions, construction areas, and trail uses would remain the same. As a result, **Alternative 3** would require the same mitigation measures that are included in **Section 4.10, Hydrology and Water**, for the proposed project. Therefore, the hydrology and water quality impact under **Alternative 3** would be less than significant with mitigation, and the impacts would be similar to and slightly less than the proposed project.

Land Use and Planning

The land use impact of **Alternative 3** would be similar to those identified for the proposed project. **Alternative 3** would not physically divide the community and would be consistent with most applicable goals and policies of local jurisdictions through which the trail alignment would extend. Like the proposed project, **Alternative 3** would be potentially inconsistent with one policy, the Draft Seaside 2040 fire projection policy, because much of the Trail would remain in an identified Very High Fire Hazard Severity Zone. However, nearly all of the open space lands east of the City of Seaside are in this zone, making avoidance difficult; and inconsistency with this policy would not result in physical changes to the environment, requiring mitigation. Therefore, the land use impact under **Alternative 3** would be less than significant, and the impacts would be similar to the proposed project.

Noise

Under **Alternative 3**, the noise impact would be reduced as compared to the proposed project due to the elimination of the two overcrossings. The noise impact analysis completed in **Section 4.12, Noise**, under **Impact N-1** states that pile drivers and drilling may be required for the construction of the two overcrossings for the proposed project, and that the nuisance noise generated would cause

a potentially significant impact to noise-sensitive receptors (e.g., residences) within 700 feet of pile driving and drilling activities, requiring **Mitigation Measure N-1**. **Mitigation Measure N-1** outlines notification procedures for existing noise-sensitive uses prior to construction activities and noise-reduction measures for pile driving and drilling activities. Under **Alternative 3**, there would be no overcrossings and thus no pile driving, so no mitigation would be required. Construction noise generated during the installation of the adjusted alignment at the South Boundary Road crossing would be similar to the proposed project. Operational noise impacts under this alternative would be similar to the proposed project because the number of Trail users and types of activity on the Trail would be the same as the proposed project. Overall, the noise impacts under **Alternative 3** would be less than significant, and the impacts would be reduced in comparison to the proposed project.

Public Safety and Services

Under **Alternative 3**, impacts to public safety and services would be similar to those identified for the proposed project. Whether the trail uses overcrossings at Blanco Road and at Imjin Road as with the proposed project, or the trail extends further alongside the roadway to existing at-grade intersection crossings, or the alignment at the South Boundary Road crossing is adjusted, the number of trail users and anticipated calls for public safety and services would be similar. Likewise, the solid waste and litter generated by Trail users would need to be removed from the trail as part of ongoing maintenance. As a result, **Alternative 3** would require the same mitigation measures that are included in **Section 4.13, Public Safety and Services**, for the proposed project. These include ensuring the Master Agreement for trail operation includes maintenance activities such as trash collection and working with local law enforcement regarding provisions for safety protocols and monitoring for effectiveness. Therefore, the public safety and service impact under **Alternative 3** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Transportation

The transportation impact of **Alternative 3** would be similar to those identified for the proposed project, even though the trail would be longer as it extends alongside roadways to at-grade intersections rather than using overcrossings at Blanco Road and at Imjin Road. Similar to the proposed project, **Alternative 3** would not conflict with applicable programs, plans, ordinances, or policies addressing regional or jurisdictional circulation systems, nor would the alignment result in inadequate emergency access. **Alternative 3** would meet project objectives for a safe, accessible, and separated active transportation system; connect people to recreation, open space, and workplaces; and enhance connections throughout the County providing additional opportunities for physical exercise. **Alternative 3** would result in an active transportation trail network that would enhance connections between the trail corridor communities of the former Fort Ord and the northern Monterey Peninsula region. Therefore, the transportation impact under **Alternative 3** would be less than significant, and the impacts would be similar to the proposed project.

Tribal Cultural Resources

The tribal cultural resources impact of **Alternative 3** would be similar to, but slightly greater than, those identified for the proposed project, because the area of potential impact would increase slightly due to the additional trail alignment extending alongside roadways to at-grade intersection crossings, rather than using the two overcrossings over Blanco Road and Imjin Road, and the adjusted alignment at the South Boundary Road crossing. Like the proposed project, **Alternative 3** would require the **Mitigation Measure TCR-1**, which pertains to Native American monitoring during

construction to ensure proper handling of any previously unknown or undiscovered tribal cultural resources that may be encountered with ground disturbing activities. Therefore, the impact to tribal cultural resources under **Alternative 3** would be less than significant with mitigation, and the impacts would be similar to, but slightly greater than, the proposed project.

Utilities and Service Systems

Alternative 3 would provide the same amenities for trail users as the proposed project and would not include bathrooms, water fountains, or other water supply infrastructure. Therefore, **Alternative 3** would not require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities; and it would generate comparable amounts of construction and operational waste as the proposed project. Therefore, the impact to utilities and service systems under **Alternative 3** would be less than significant, and the impacts would be similar to the proposed project.

Wildfire

Wildfire hazards within the **Alternative 3** corridor would be similar to those identified for the proposed project because the wildfire severity zones in and around the alignment would remain the same. **Alternative 3** also would require **Mitigation Measure GEO-1** to reduce landslide risks to select portions of the alignment that would be located on or near steep slopes. Therefore, the wildfire impact under **Alternative 3** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

6.3.4 Alternative 4: Frog Pond Wetland Preserve Northerly Alignment

Description

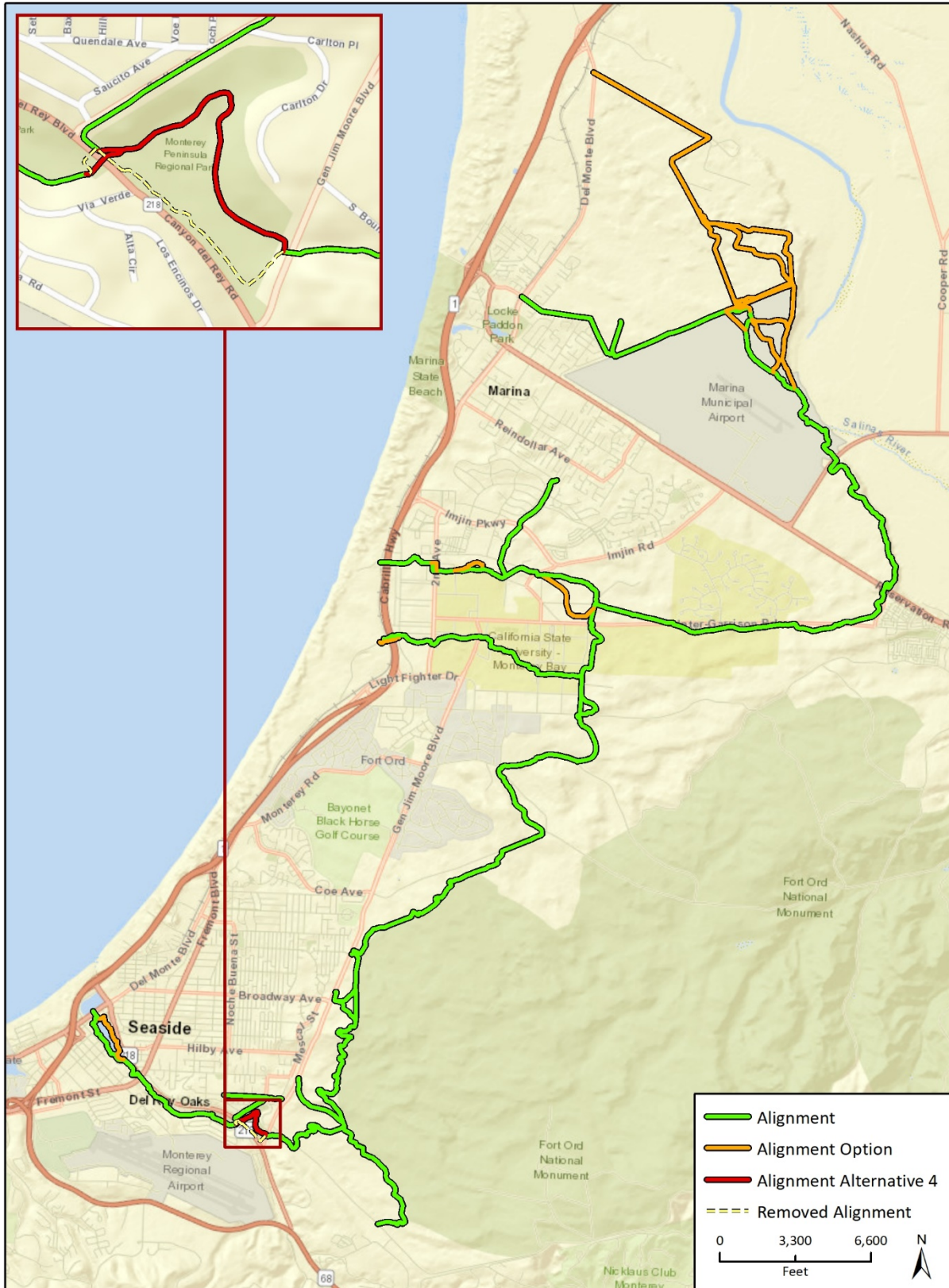
The Frog Pond Wetland Preserve Northerly Alignment alternative (**Alternative 4**) would modify the portion of the alignment extending through the Frog Pond Wetland Preserve, so it follows the existing trail through the northern portion of the Frog Pond, rather than the existing trail through the southern portion, as shown in **Figure 6-3**.

From SR 218, the **Alternative 4** alignment around the Frog Pond would extend northeast, roughly parallel to and approximately 270 feet east of Carlton Drive; and then would extend east, roughly parallel to and 260 to 350 feet south of the Carlton Drive cul-de-sac, before crossing General Jim Moore Boulevard. This alignment would primarily follow the existing trail through the Frog Pond, but to the north and east toward General Jim Moore Boulevard, rather than to the east and then north, as with the proposed project. The purpose of this alternative is to reduce impacts to the Frog Pond by minimizing the loss of wetlands.

The **Alternative 4** alignment north of the Frog Pond would require 0.13 mile (688 feet) of additional trail length than the proposed project alignment. The total length of **Alternative 4** would be approximately 27.9 miles, compared to 27.8 miles for the proposed FORTAG project. This would equate to a 0.4 percent increase in trail length provided under **Alternative 4** compared to the proposed FORTAG project.

Alternative 4 would require similar construction activities and materials for the realigned portion through the Frog Pond as identified for the proposed project. Accordingly, the Trail would be

Figure 6-3 Alternative 4, Frog Pond Wetland Preserve Northerly Alignment



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Fig 6-3 Alternative 4

comprised of an eight-foot wide stable, permeable surface (not paved) with no shoulders due to the sensitive natural resources

The remainder of the **Alternative 4** alignment would be the same as the proposed project. The trail would accommodate pedestrians and bicyclists of all abilities, and typical trail cross-section would be 12 to 16 feet wide. Portions of the trail would include equestrian paths and a greenway buffer where space allows, as described in **Section 2, Project Description**. The connections to the existing Coastal Rec Trail would also be included as part of **Alternative 4**, along with the roundabouts, overcrossings proposed across Blanco Road and Imjin Road, and undercrossings proposed along the Northern Loop, CSUMB Loop North, CSUMB Loop South, National Monument Loop, and Canyon Del Rey/SR 218 segments. These include the undercrossings near the Frog Pond, which would extend beneath General Jim Moore Boulevard and beneath SR 218 approximately 140 feet southeast of Carlton Drive. **Alternative 4** would contain the same trail amenities and features as the proposed FORTAG project (i.e., rest areas, benches, and shade structures).

As shown in **Table 6-2, Alternative 4** would meet all the project objectives to function as a safe and accessible active transportation artery for people of all ages and abilities, to provide interpretive and educational opportunities to Trail users, to connect people to open space and recreation, to enhance connections throughout Monterey County while providing opportunities for physical exercise, and to create economic benefits.

Impact Analysis

The impact analysis presented below focuses on the environmental impacts of implementing **Alternative 4** in comparison to the proposed FORTAG project. For most environmental topics, the impacts would be similar, with no substantial difference. The Frog Pond Wetland Preserve is identified as a potential jurisdictional area, and the impacts under **Alternative 4** would be less for biological resources because it would reduce impacts to wetlands. However, **Alternative 4** would not result in any changes to the significance determinations of the impacts identified for the proposed project.

As shown in **Table 6-2, Alternative 4** would meet all the project objectives.

Aesthetics

The aesthetics impact of **Alternative 4** would be similar to those identified for the proposed FORTAG project, since the location of the alignment is in the same general location as the proposed FORTAG alignment, with the exception of the Frog Pond area where the alignment would extend across the north side, rather than the south side. However, key viewpoints identified for analysis in **Section 4.1, Aesthetics**, would remain the same as the proposed FORTAG project. Mitigation would still be required to ensure the overcrossings, undercrossings and trail amenities are designed for compatibility with the surrounding landscape and are not visually obtrusive, and to ensure any Trail lighting is dark sky-compliant to minimize the release of light upwards. Overall, the impact to aesthetics under **Alternative 4** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Agriculture and Forestry Resources

Impacts to agricultural resources under **Alternative 4** would be similar to those identified for the proposed project. The Frog Pond portion of the Trail is not located on or immediately adjacent to agricultural lands. **Alternative 4** would convert the same amount of agricultural land as the

proposed project, and thus would require the same mitigation measures to reduce conflicts with agricultural land. There is no land zoned as forestry or timber use in the study area and forestry impacts would be similar to the proposed project because this alternative would follow an existing trail through the Frog Pond, which is comparable to the proposed project. Therefore, the impact to agriculture and forestry resources under **Alternative 4** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Air Quality

Under **Alternative 4**, construction-related emissions would be similar to the proposed project. Although the Trail would be slightly longer through the Frog Pond (0.13 mile or 0.4 percent), the additional length is nominal, and any additional emissions associated with **Alternative 4** would not be a substantial increase compared to the proposed project. The rest of the proposed alignment would not change under this alternative, and the overall emissions would be similar. Operational emissions would remain the same as the proposed project, and **Mitigation Measure AQ-4** would still be required for **Alternative 4** to contain nuisance odors from dog waste. Therefore, the impact on air quality under **Alternative 4** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Biological Resources

The Frog Pond Wetland Preserve and Canyon Del Rey Creek are identified as potential jurisdictional areas, and the Trail through the Frog Pond Wetland Preserve may result in direct wetland impacts from placement of fill for the trail. Although the **Alternative 4** alignment is slightly longer (0.13 mile or 0.4 percent) than the proposed project through the Preserve, the impacts to jurisdictional features under **Alternative 4** would be less than those identified for the proposed project. This is because there are fewer wetlands in the northern portion of the Frog Pond Wetland Preserve, and impacts to Canyon Del Rey Creek within the Preserve would be largely avoided compared to the southern portion where the proposed project would extend between the Frog Pond and Canyon Del Rey Creek along SR 218. Therefore, there would be less potential for direct impacts to wetlands from placement of fill for the trail along Canyon Del Rey Creek and its associated wetlands. Impacts to waters at the Frog Pond are likely to be completely avoided by this alternative route. However, **Alternative 4** would require the same mitigation measures that are included in **Section 4.4, Biological Resources**, for the proposed project to ensure no net loss of wetlands and impacts to jurisdictional features are less than significant, and to minimize other potential impacts in the Frog Pond and from the rest of the new trail on biological resources. Therefore, impacts to biological resources under **Alternative 4** would be less than significant with mitigation, and the impacts would be reduced in comparison to the proposed project.

Cultural Resources

Impacts to cultural resources under **Alternative 4** would be similar to those identified for the proposed project. Although the trail alignment through the Frog Pond would be slightly greater (0.13 mile or 0.4 percent) than the proposed project, it is a nominal increase; and the increased length would be along an existing unpaved trail that would remain unpaved. Therefore, the impacts from **Alternative 4** would not substantially increase the area of disturbance compared to the proposed project and could be mitigated with the same mitigation as for the proposed project. **Alternative 4** would require the **Mitigation Measure CUL-2**, which pertains to archaeological monitoring during construction of the trail segments and amenities to ensure proper handling of any previously unknown or undiscovered archaeological resources that may be encountered during

ground-disturbing activities. Therefore, the impact to cultural resources under **Alternative 4** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Energy

Under **Alternative 4**, energy use during construction and operation of the Trail would be similar to the proposed project. A nominal amount of additional energy use would be required to construct the additional 0.13 mile (0.4 percent) of trail through the Frog Pond Wetland Preserve. However, the energy increase would be minimal compared to the proposed project alignment through the Frog Pond and overall construction energy use for the proposed project. Similar to the proposed project, **Alternative 4** would not conflict with any local plans for renewable energy or energy efficiency and would be used as a form of active transportation that would likely result in a net decrease in fuel consumption compared to existing conditions. Therefore, the energy impact under **Alternative 4** would be less than significant, and the impacts would be similar to the proposed project.

Geology and Soils

Impacts to geology and soils under **Alternative 4** would be similar to those of the proposed project. Although extending the alignment through the northern portion of the Frog Pond instead of the southern portion would require slightly more ground disturbance (because the alignment is 0.13 mile or 0.4 percent longer), the ground disturbance would be minimal since the alignment is along an existing unpaved trail and would remain unpaved. The rest of the alignment would be the same as the proposed project, and the same mitigation measures, including a geotechnical investigation and construction monitoring for paleontological resources, would still apply. Therefore, the geology and soils impacts under **Alternative 4** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Greenhouse Gas Emissions/Climate Change

Under **Alternative 4**, GHG emissions during construction and operation of the Trail would be similar to the proposed project. **Alternative 4** could result in additional emissions during project construction due to the slightly longer trail alignment through the north portion of the Frog Pond (0.13 mile or 0.4 percent). However, as described under the Air Quality section, any additional emissions associated with **Alternative 4** would not be a substantial increase compared to the proposed project. Similar to the proposed project, **Alternative 4** would not impact any local GHG reduction and/or climate change plans, and would be used as a form of active transportation that would likely result in a net decrease in fuel consumption (and therefore, GHG emissions) compared to existing conditions. Therefore, the GHG/climate change impacts under **Alternative 4** would be less than significant, and the impacts would be similar to the proposed project.

Hazards and Hazardous Materials

Hazards within the **Alternative 4** corridor would be similar to those identified for the proposed project because the overall alignment would be the same, except for the additional 0.13 mile of trail through the northern portion of the Frog Pond instead of the southern portion. The entire Frog Pond area is a Wetland Preserve with no known hazards or hazardous materials. The remainder of the Trail alignment would be the same as the proposed project. Therefore, exposure to hazardous materials and the potential for hazardous material spills would be similar to the proposed project. As a result, **Alternative 4** would require the same mitigation measures that are included in **Section**

4.9, Hazards and Hazardous Materials, for the proposed project. The hazards and hazardous materials impact under **Alternative 4** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Hydrology and Water Quality

Alternative 4 would have similar impacts on hydrology and water quality as those identified for the proposed project. Although the Trail alignment under **Alternative 4** through the northern portion of the Frog Pond would be slightly longer (0.13 mile or 0.4 percent) than the proposed project through the southern portion, the Trail through the Frog Pond would be permeable and would not result in substantial new impervious surface compared to the proposed project. The rest of the Trail alignment would be the same, and the overall hydrology and water quality impacts of **Alternative 4** would be similar to the proposed project since site conditions, construction areas, and trail uses would remain the same. As a result, **Alternative 4** would require the same mitigation measures that are included in **Section 4.10, Hydrology and Water**, for the proposed project. Therefore, the hydrology and water quality impact under **Alternative 4** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Land Use and Planning

The land use impact of **Alternative 4** would be similar to those identified for the proposed project. **Alternative 4** would not physically divide the community and would be consistent with most applicable goals and policies of local jurisdictions through which the trail alignment would extend. Like the proposed project, **Alternative 4** would be potentially inconsistent with one policy, the Draft Seaside 2040 fire projection policy, because much of the Trail would remain in an identified Very High Fire Hazard Severity Zone. However, nearly all of the open space lands east of the City of Seaside are in this zone, making avoidance difficult; and inconsistency with this policy would not result in physical changes to the environment, requiring mitigation. Therefore, the land use impact under **Alternative 4** would be less than significant, and the impacts would be similar to the proposed project.

Noise

Under **Alternative 4**, the Trail alignment through the Frog Pond would be relocated to the northern portion, and noise impacts would be similar to those of the proposed project. Although construction activities in the Frog Pond would be within a similar distance to nearby residences (considered a sensitive receptor), construction-related noise under **Alternative 4** may be slightly more perceptible to residents in the northern portion than the proposed project alignment in the southern portion, because Canyon Del Rey Boulevard/SR 218 extends between the trail alignment and sensitive receptors in the southern portion, creating noise that would likely be louder than the construction noise. Nonetheless, the construction noise impacts associated with **Alternative 4** through the Frog Pond would be less than significant. However, like the proposed project, there would be substantial noise associated with constructing the overcrossings over Blanco Road and Imjin Road. As such, noise mitigation measures would apply under this alternative to reduce noise from pile driving and drilling for the proposed overcrossings. Operational noise from Trail use under this alternative would be similar to the proposed project resulting in similar operational noise impacts to nearby sensitive receivers, which were determined less than significant in **Section 4.12**. Overall, the noise impacts under **Alternative 4** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Public Safety and Services

Under **Alternative 4**, impacts to public safety and services would be similar to those identified for the proposed project. Whether the trail extends through the northern portion of the Frog Pond or the southern portion, the number of trail users and anticipated calls for public safety and services would be similar. Likewise, the solid waste and litter generated by Trail users would need to be removed from the trail as part of ongoing maintenance. As a result, **Alternative 4** would require the same mitigation measures that are included in **Section 4.13, Public Safety and Services**, for the proposed project. These include ensuring the Master Agreement for trail operation includes maintenance activities such as trash collection and working with local law enforcement regarding provisions for safety protocols and monitoring for effectiveness. Therefore, the public safety and service impact under **Alternative 4** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Transportation

The transportation impact of **Alternative 4** would be similar to those identified for the proposed project. Similar to the proposed project, **Alternative 4** would not conflict with applicable programs, plans, ordinances, or policies addressing regional or jurisdictional circulation systems. Although the northern alignment through the Frog Pond Wetland Preserve would extend slightly further into the Preserve, such that areas are slightly further from the trail connections at Canyon Del Rey/SR 218 and Genera Jim Moore Boulevard, the additional distance (up to 0.13 mile further) under **Alternative 4** would not result in inadequate emergency access. **Alternative 4** would meet project objectives for a safe, accessible, and separated active transportation system; connect people to recreation, open space, and workplaces; and enhance connections throughout the County providing additional opportunities for physical exercise. **Alternative 4** would result in an active transportation trail network that would enhance connections between the trail corridor communities of the former Fort Ord and the northwestern Monterey Peninsula region. Therefore, the transportation impact under **Alternative 4** would be less than significant, and the impacts would be similar to the proposed project.

Tribal Cultural Resources

Impacts to cultural resources under **Alternative 4** would be similar to those identified for the proposed project. Although the trail alignment through the Frog Pond would be slightly greater (0.13 mile or 0.4 percent) than the proposed project, it is a nominal increase; and the increased length would be along an existing unpaved trail that would remain unpaved. Therefore, the impacts from **Alternative 4** would not substantially increase the area of disturbance compared to the proposed project and could be mitigated with the same mitigation as for the proposed project. **Alternative 4** would require the **Mitigation Measure TCR-1**, which pertains to Native American monitoring during construction to ensure proper handling of any previously unknown or undiscovered tribal cultural resources that may be encountered with ground disturbing activities. Therefore, the impact to tribal cultural resources under **Alternative 4** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

Utilities and Service Systems

Alternative 4 would provide the same amenities for trail users as the proposed project and would not include bathrooms, water fountains, or other water supply infrastructure. Therefore, **Alternative 4** would not require or result in the relocation or construction of new or expanded

water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities; and it would generate comparable amounts of construction and operational waste as the proposed project. Therefore, the impact to utilities and service systems under **Alternative 4** would be less than significant, and the impacts would be similar to the proposed project.

Wildfire

Wildfire hazards within the **Alternative 4** corridor would be similar to those identified for the proposed project because the wildfire severity zones in and around the alignment would remain the same. **Alternative 4** also would require **Mitigation Measure GEO-1** to reduce landslide risks to select portions of the alignment that would be located on or near steep slopes. Therefore, the wildfire impact under **Alternative 4** would be less than significant with mitigation, and the impacts would be similar to the proposed project.

6.4 Environmentally Superior Alternative

All the environmental impacts of the proposed FORTAG project with a comparison to **Alternatives 1** through **4** are presented in **Table 6-4**. Based on this comparison, **Alternative 1** (No Project) would result in substantially less environmental impacts for all the resource topics, compared to the proposed project and **Alternatives 2-4**.

If the environmentally superior alternative is the No Project alternative, CEQA requires the EIR shall also identify an environmentally superior alternative among the other alternatives (*CEQA Guidelines* Section 15126.6). Therefore, the rest of this section focuses on the proposed project and **Alternatives 2, 3, and 4**.

As described in **Section 6.3** above and **Table 6-4**, the overall impacts of the proposed project and **Alternatives 2** through **4** would be similar, with some impacts greater and some less, depending on the resource topic.

Table 6-4 indicates whether each alternative's environmental impact is greater than, less than, or similar to that of the proposed project for each of the issue areas studied. Under **Alternative 2** (Existing Roadway Alignment), the degree or extent of impact would be reduced for most of the environmental topics analyzed, particularly biological resources. Under **Alternative 3** (Substitute Crossings), most impacts would be similar, and cultural resources impacts would be increased because of the additional ground disturbance required for extending the trail along roadways instead of using the overcrossings. However, the aesthetics, geology/soils, and noise impacts would be reduced because no deep excavation and pile driving would be required, changing the impact determination for noise to less than significant without mitigation. Under **Alternative 4** (Frog Pond Wetland Preserve Northerly Alignment), most impacts would be similar to the proposed project, except for a reduction in biological resources impacts to wetlands in the Frog Pond, but the significance determination would not change.

The alternatives analysis provided in **Section 6.3** is summarized below. Based on this analysis, and the ability to meet project objectives, **Alternative 2** would be the environmentally superior alternative, as discussed below.

- **Alternative 1 (No Project)** assumes that the FORTAG corridor would remain in present day conditions. There would be no new 28-mile trail; no new undercrossings, overcrossings, or

roundabouts; and no improvements to existing, informal parking areas. It is expected these existing parking areas and other existing trails in the area (i.e., outside of and crossing through the project corridor) would continue to be used as they currently have been by people accessing portions of the former Fort Ord, including by mountain bikers and equestrians. For all environmental topics evaluated, the impact would be less than significant, or there would be no impact. Therefore, the mitigation measures associated with changes to aesthetics, surrounding agricultural uses, pet waste odors, impacts to sensitive species and habitats, impacts to archaeological and tribal cultural resources during construction-related ground disturbance activities, geologic hazards and slope stability, hydrologic and water quality changes, construction noise, and public safety and services impacts would not be required. **Alternative 1** would result in reduced impacts for all environmental topics, in comparison to the proposed project.

With respect to the project objectives, **Alternative 1** would not fulfill the project objectives because the existing conditions would not provide an active transportation trail network that enhances connections between the former Fort Ord, Monterey Peninsula, and Salinas Valley Communities.

- **Alternative 2 (Existing Roadway Alignment)** would modify the Trail alignment to reduce the amount of area disturbed as a result of trail construction. Under **Alternative 2**, four specific areas on the FORTAG alignment would be modified to be placed along existing roadways, which would result in an approximately 18 percent reduction in the total miles provided under **Alternative 2** (22.7 miles) compared to the proposed project (27.8 miles). The Ryan Ranch segment would be completely removed from the alignment, and the Frog Pond Wetland Preserve would be avoided. The total area of disturbance would be approximately 37.8 acres, which would be a reduction of approximately 17.6 acres (or approximately 32 percent reduction) from the proposed project. Therefore, **Alternative 2** would have a substantially reduced impact on biological resources due to the reduction of disturbed areas. Though the modified alignment could include sensitive vegetation communities and species, the **Alternative 2** corridor would not include several vegetation communities (Arroyo willow, chamise chaparral and black sage chaparral, and ephemeral pond) and contain reduced amounts of other vegetation communities (black sage scrub, California sagebrush scrub, coast live oak woodland, dune scrub, manzanita chaparral, and riparian woodland). Despite the reduced area of disturbance, the remainder of the **Alternative 2** corridor would be located in the same areas as the proposed project. Therefore, all mitigation measures included in **Section 4.4, Biological Resources**, would be required under **Alternative 2**, although overall impacts to biological resources would be reduced because disturbance in the Frog Pond Wetland Preserve would not occur.

Alternative 2 would also have reduced impacts on air quality, cultural resources and tribal cultural resources, energy consumption, and GHG and climate change due to the reduction in total trail miles and disturbance area. However, the remainder of the **Alternative 2** alignment and corridor would be the same as the proposed project. Therefore, the mitigation measures associated with changes to aesthetics, surrounding agricultural uses, pet waste odors, impacts to sensitive species and habitats, impacts to archaeological and tribal cultural resources during construction-related ground disturbance activities, geologic hazards and slope stability, hydrologic and water quality changes, construction noise, and public safety and services impacts would be required. When compared to the proposed project, the degree or extent of impact

would be reduced for most topics (10 of 17 topics), as summarized in **Table 6-4**, but none of the impact determinations would change under **Alternative 2**.

With respect to the project objectives, **Alternative 2** would fulfill all Project Objectives: **Objectives 1 and 5** similar to the proposed project; meet **Objectives 2, 3, and 7** to a lesser extent than the FORTAG project; and meet **Objectives 4 and 6** to a greater extent than the proposed project. Therefore, **Alternative 2** is considered the environmentally superior alternative.

- **Alternative 3 (Substitute Crossings)** would eliminate the two overcrossings located at Reservation Road/Blanco Road in the Northern Loop segment and at 8th Street/Imjin Road in the CSUMB Loop North segment, and adjust the alignment at the South Boundary Road crossing on the Ryan Ranch segment. The elimination of the two overcrossings would require 1.33 mile of additional trail length at Blanco Road and an additional 0.32-mile of trail at Imjin Road, alongside existing roadways to the nearest at-grade intersection crossing. The adjusted alignment at the South Boundary Road crossing would require 0.04 mile of additional trail length. **Alternative 3** would provide a total of 29.2 miles (five percent increase), compared to 28 miles for the proposed project. The rest of the **Alternative 3** alignment would remain the same as the proposed project. Impacts for most issue areas under **Alternative 3** would be comparable to the proposed project, but would not change the significance determinations. However, the elimination of the two overcrossings would reduce impacts for three topics in comparison to the proposed project. Aesthetics impacts would be reduced because no new large visual element (i.e., above ground overcrossing structures) would be introduced. Geology and soils impacts would be reduced because seismic risk and deeper excavation associated with the overcrossings would not be required. Construction noise impacts for surrounding noise-sensitive existing uses would be reduced because pile drivers or drillers would not be required to construct overcrossings. The significance determination would not change for the aesthetics and geology/soils impacts, which would be less than significant with mitigation, but it would change for the noise impact to less than significant with no mitigation. However, all other mitigation measures identified for the proposed project would still be required for **Alternative 3**.

With respect to the project objectives, **Alternative 3** would meet all of the project objectives, and would not result in any changes to the significance determinations of the impacts identified for the proposed project. However, **Alternative 3** would result in additional safety concerns as compared to the proposed project. The at-grade crossings would increase safety concerns related to vehicle collisions for Trail users that would not occur with the two overcrossings.

- **Alternative 4 (Frog Pond Wetland Preserve Northerly Alignment)** would realign the portion of the Canyon Del Rey /SR 218 segment extending through the Frog Pond Wetland Preserve, such that it would extend through the northern portion under **Alternative 4**, instead of the southern portion under the proposed project. The realignment through the northern portion would result in an additional 0.13 mile of trail through the Frog Pond. The total length of **Alternative 4** would be approximately 27.9 miles, compared to 28 miles for the FORTAG project. The rest of the **Alternative 4** alignment would remain the same as the proposed project. Impacts for most issue areas under **Alternative 4** would be similar to the proposed project, except impacts to biological resources would be reduced in comparison to the proposed project, because there would be fewer direct impacts on wetlands. However, the significance determination and required mitigation for biological resources impacts, as well as all other impacts and required mitigation, identified for the proposed project would still be required for **Alternative 4**.

With respect to the project objectives, **Alternative 4** would meet all of the project objectives, and would not result in any changes to the significance determinations of the impacts identified for the proposed project.

Table 6-4 Impact Comparison of Alternatives

Issue	Proposed Project Impact Classification	Alternative 1: No Project	Alternative 2: Existing Roadway Alignment	Alternative 3: Substitute Crossings	Alternative 4: Frog Pond Northerly Alignment
Aesthetics	Less than Significant with Mitigation	+	=	+	=
Agriculture and Forestry Resources	Less than Significant with Mitigation	+	=	=	=
Air Quality	Less than Significant with Mitigation	+	+	=	=
Biological Resources	Less than Significant with Mitigation	+	+	=	+
Cultural Resources	Less than Significant with Mitigation	+	+	-	=
Energy	Less than Significant	+	+	=	=
Geology and Soils	Less than Significant with Mitigation	+	+	+	=
Greenhouse Gas and Climate Change	Less than Significant	+	+	=	=
Hazards and Hazardous Materials	Less than Significant with Mitigation	+	+	=	=
Hydrology and Water Quality	Less than Significant with Mitigation	+	+	=	=
Land Use and Planning	Less than Significant	+	=	=	=
Noise	Less than Significant with Mitigation	+	+	+	=
Public Safety and Services	Less than Significant with Mitigation	+	=	=	=
Transportation	Less than Significant	+	=	=	=
Tribal Cultural Resources	Less than Significant with Mitigation	+	+	-	=
Utilities	Less than Significant	+	=	=	=
Wildfire	Less than Significant with Mitigation	+	=	=	=

+ Superior to the proposed project (reduced level of impact)

- Inferior to the proposed project (increased level of impact)

= Similar level of impact to the proposed project

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