

Monterey 2031
General Plan Update
Environmental Impact Report

Volume 1

February 9, 2024

PUBLIC REVIEW DRAFT

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THE CITY OF
MONTEREY

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General Plan Update
Environmental Impact Report
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Public Review Draft

Prepared for the City of Monterey

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Table of Contents

Executive Summary **ES-1**

1 Introduction **1-1**

1.1 Purpose of the EIR 1-1
1.2 Approach and Scope of the EIR 1-2
1.3 Planning Process and Public Involvement 1-4
1.4 Other Relevant Plans and Environmental Studies 1-6
1.5 Organization of the EIR 1-6

2 Project Description **2-1**

2.1 Introduction 2-1
2.2 Location and Project Setting 2-1
2.3 Background 2-3
2.4 Purpose and Objectvies of the Proposed Plan 2-6
2.5 General Plan Update Process 2-8
2.6 Proposed Plan Context 2-9
2.7 Buildout Projections 2-21
2.8 Intended Uses of the EIR 2-25

3.1 Aesthetics **3.1-1**

Environmental Setting 3.1-1
Impact Analysis 3.1-16

3.2 Agricultural Resources **3.2-1**

Environmental Setting 3.2-1
Impact Analysis 3.2-9

3.3 Air Quality **3.3-1**

Environmental Setting 3.3-1
Impact Analysis 3.3-27

3.4 Biologial Resources **3.4-1**

Environmental Setting 3.4-1
Impact Analysis 3.4-22

3.5 Cultural and Tribal Cultural Resources **3.5-1**

Environmental Setting 3.5-1

Impact Analysis 3.5-14

3.6 Energy, Greenhouse Gas Emissions, and Climate Change 3.6-1

Environmental Setting 3.6-1
Impact Analysis 3.6-21

3.7 Geology, Soils, and Seismicity 3.7-1

Environmental Setting 3.7-1
Impact Analysis 3.7-19

3.8 Hazards and Hazardous Materials 3.8-1

Environmental Setting 3.8-1
Impact Analysis 3.8-23

3.9 Hydrology and Water Quality 3.9-1

Environmental Setting 3.9-1
Impact Analysis 3.9-18

3.10 Land Use, Population, and Housing 3.10-1

Environmental Setting 3.10-1
Impact Analysis 3.10-12

3.11 Noise 3.11-1

Environmental Setting 3.11-1
Impact Analysis 3.11-17

3.12 Public Services and Recreation 3.12-1

Environmental Setting 3.12-1
Impact Analysis 3.12-18

3.13 Transportation 3.13-1

Environmental Setting 3.13-1
Impact Analysis 3.13-10

3.14 Utilities and Service Systems 3.14-1

Environmental Setting 3.14-1
Impact Analysis 3.14-22

3.15 Wildfire 3.15-1

Environmental Setting 3.15-1
Impact Analysis 3.15-14

3.16 Effects Found Not to be Significant 3.16-1

Forest Resources 3.16-1
Mineral Resources 3.16-2

4 Alternatives Analysis 4-1

4.1 Alternatives Analyzed in This EIR 4-2
4.2 Alternatives Considered but Not Evaluated in Detail in this EIR 4-4
4.3 Impact Analysis of Alternatives 4-5
4.4 Environmentally Superior Alternative 4-22

5 CEQA Required Conclusions 5-1

5.1 Growth-Inducing Impacts 5-1
5.2 Cumulative Impacts 5-5
5.3 Significant and Unavoidable Impacts 5-17
5.4 Significant Irreversible Environmental Changes 5-20

6 List of Preparers 6-1

VOLUME 2A: APPENDICES

A Programs NOP and Comment Letters

VOLUME 2B: APPENDICES

B Housing Element
C Materials for Cultural Resources
D Materials for Tribal Cultural Resources
E GHG and Air Quality Data
F Noise Data
G Public Service Provider Correspondence
H Transportation VMT and Evacuation Assessment
I Water Supply Assessment

List of Figures

Figure 2-1: Regional Setting / Planning Area Boundaries 2-2
Figure 2-2: Existing Land Use 2-5
Figure 2-3: Opportunity Areas 2-11

Figure 2-4 Proposed General Plan Land Use Map 2-20
Figure 2-5 Pipeline Projects 2-22
Figure 2-6 Sites Available for Housing 2-24
Figure 3.1-1 Scenic Corridors 3.1-5
Figure 3.1-2 Scenic Vistas 3.1-6
Figure 3.1-1 Scenic Corridors 3.1-5
Figure 3.1-2 Scenic Vistas 3.1-6
Figure 3.2-1: Agricultural Resources 3.2-4
Figure 3.2-2: Current Zoning in the Planning Area 3.2-6
Figure 3.3-1: Existing Air Quality Sensitive Receptors and Emissions Sources 3.3-12
Figure 3.4-1: Habitat Types in the Planning Area 3.4-3
Figure 3.4-2: Special Status Species Occurrences 3.4-10
Figure 3.4-3: Wildlife and Habitat Connectivity 3.4-12
Figure 3.5-1A: Historic Resources - NWIC 3.5-3
Figure 3.5-1B: Historic Resources - Local 3.5-5
Figure 3.7-1: Soil Types 3.7-5
Figure 3.7-2: Fault Zones 3.7-8
Figure 3.7-3: Liquefaction Risk 3.7-11
Figure 3.7-4: Landslide Susceptibility 3.7-12
Figure 3.8-1: Hazardous Materials Sites 3.8-5
Figure 3.8-2: Airport Safety Zones 3.8-15
Figure 3.9-1: Groundwater Basins 3.9-3
Figure 3.9-2: Regional Watersheds and Surface Water 3.9-4
Figure 3.9-3: Existing Storm Facilities 3.9-6
Figure 3.9-4: Flood Zones in the Vicinity of Planning Area 3.9-8
Figure 3.9-5: Sea Level Rise and Coastal Hazards 3.9-10
Figure 3.11-1a: Existing (No Project) Noise Contours 3.11-24
Figure 3.11-1b: Future (With Project) Noise Contours 3.11-25
Figure 3.12-1: Educational Institutions and Public Facilities 3.12-2
Figure 3.12-2: Parks and Recreational Facilities 3.12-12
Figure 3.13-1: Designated Truck Routes 3.13-4
Figure 3.13-2: Existing and Proposed Bicycle Network 3.13-9
Figure 3.14-1: Water Service Areas 3.14-2
Figure 3.14-2: Existing Wastewater Collection System 3.14-10
Figure 3.14-3: Existing Storm Drain System 3.14-12
Figure 3.15-1: WUI Areas in Monterey County 3.15-4
Figure 3.15-2: Fire Hazards 3.15-8
Figure 3.15-3: Evacuation Routes 3.15-22

List of Tables

Table ES-1: Projected Buildout (2031) ES-4
Table ES-2: Summary of Impacts and Mitigation Measures ES-11
Table 2-1: Existing Land Use Summary 2-4
Table 2-2: Projected Buildout (2031) 2-25
Table 3.3-1: Ambient Air Quality Data (Salinas Monitoring Station, 2020-2022) 3.3-9
Table 3.3-2: Existing Stationary Sources and Emissions within the Planning Area 3.3-11
Table 3.3-3: Ambient Air Quality Attainment Status for Monterey County portion of the NCCAB 3.3-14
Table 3.3-4: National and California Ambient Air Quality Standards 3.3-16
Table 3.3-5: Subregional Population, Housing, and Employment Forecasts for Monterey 3.3-25
Table 3.3-6: MBARD Project-Level Air Quality Emissions Thresholds 3.3-28
Table 3.3-7: Estimated Maximum Daily Operational Emissions with Proposed Plan 3.3-43
Table 3.4-1: Special-Status Plant Species with the Potential to Occur in the Planning Area 3.4-7
Table 3.4-2: Special-Status Animal Species with the Potential to Occur in the Planning Area 3.4-8
Table 3.5-1: Proposed Plan Sites that Contain Historic Resources 3.5-17
Table 3.6-1: Recent Global, National, State, and Regional Greenhouse Gas Emission Inventories 3.6-4
Table 3.6-2: City of Monterey Community Greenhouse Gas Emission Inventory, 2005-2020 ..... 3.6-5
Table 3.6-3: Unmitigated Proposed Plan Operational Emissions (Annual) 3.6-32
Table 3.6-4: Mitigated Proposed Plan Operational Emissions by Emissions Source 3.6-33
Table 3.6-5: GHG Reduction Targets and Performance-Based Metrics 3.6-34
Table 3.6-6: Per Capita and Per Service Population Metrics 3.6-35
Table 3.6-7: Per Capita and Per Service Population Metrics Per Capita and Per Service Population Metrics 3.6-42
Table 3.6-8: Consistency with AMBAG 2045 MTP/SCS Implementation Strategies 3.6-44
Table 3.6-9: Energy Consumption from Proposed Plan Development 3.6-49
Table 3.7-1: Soil Types in the Planning Area 3.7-3
Table 3.8-1: Contaminated Sites in the Vicinity of Planning Area 3.8-6
Table 3.10-1: Existing Land Use Summary 3.10-4
Table 3.10-2: Subregional Employment Forecast, 2015-2045 ..... 3.10-6
Table 3.10-3: Planning Area Population and Job Growth Projections 2015-2031 ..... 3.10-6
Table 3.11-1: Typical Noise Levels in the Environment 3.11-2
Table 3.11-2: Typical Levels of Groundborne Vibration 3.11-8
Table 3.11-3: Vibration Source Levels for Construction Equipment 3.11-9
Table 3.11-4: Vibration Damage Potential Threshold Criteria Guidelines 3.11-10
Table 3.11-5: Vibration Annoyance Potential Criteria Guidelines 3.11-10

Table 3.11-6: General Plan Exterior Noise Exposure Standards for New Development 3.11-14
Table 3.11-7: Typical Noise Levels for Construction Equipment 3.11-22
Table 3.12-1: Monterey Fire Department Stations 3.12-4
Table 3.12-2: Enrollment at Monterey Peninsula Unified District Schools Serving the Planning Area (2018-2023) 3.12-6
Table 3.12-3: MPUSD Enrollment Projections 3.12-7
Table 3.12-4: Existing Parks and Facilities 3.12-9
Table 3.12-5: Existing Recreation Facilities 3.12-13
Table 3.13-1: Truck Routes 3.13-5
Table 3.13-2: Consistency with Move Monterey Strategies for New Development 3.13-21
Table 3.13-3: Planning Area VMT Metrics 3.13-26
Table 3.13-4: CAPCOA Mitigation Measures to Reduce VMT 3.13-26
Table 3.14-1: Subbasins within the Salinas Valley Groundwater Basin 3.14-7
Table 3.14-2: Historic and Projected Water Demand in the Cal-Am Service Area 3.14-25
Table 3.14-3: Normal Year Supply and Demand Comparison 3.14-26
Table 3.14-4: Single Dry Year Supply and Demand Comparison 3.14-27
Table 3.14-5: MCWD Water Demand Projections by Jurisdiction (AFY) 3.14-28
Table 3.14-6: Annual Solid Waste Disposal Per Capita (Monterey) 3.14-33
Table 4-1: Alternatives Buildout Comparison 4-4
Table 4-2: Summary of Impacts for Alternatives 4-22
Table 5-1: Projected Buildout (2031) 5-2

Executive Summary

This Draft Environmental Impact Report (EIR) evaluates the potential impacts of the proposed Monterey 2031 General Plan, referred to as the "Proposed Plan." The Proposed Plan is both a policy document and an implementation tool for implementing the City's General Plan. It contains goals, policies, and programs to guide future housing development within the approximately 8.67 square miles of land and 3.5 square miles of water Planning Area. The Proposed Plan was developed in response to policy direction provided by the City Council, Planning Commission, and community. This Draft EIR has been prepared on behalf of the City of Monterey, in accordance with the California Environmental Quality Act (CEQA). The City of Monterey is the lead agency for this EIR, as defined by the California Environmental Quality Act, Public Resources Code Section 21000, *et seq*. (CEQA).

An EIR is intended to inform decision-makers and the general public of the potential significant environmental impacts of a proposed project. The EIR also considers the availability of mitigation measures to minimize significant impacts and evaluates reasonable alternatives to the Proposed Plan that may reduce or avoid one or more significant environmental effects. Based on the alternatives analysis, an environmentally superior alternative is identified.

This EIR is a program EIR that examines the potential effects resulting from implementing designated land uses and policies in the Proposed Plan. The impact assessment evaluates the Proposed Plan as a whole and identifies the broad, regional effects that may occur with its implementation. As a programmatic document, this EIR does not assess project-specific impacts that may result from developments pursuant to the Proposed Plan. To the extent that any future development project made possible by the Proposed Plan may have individual, site-specific impacts not addressed in this program EIR, such projects would be subject to separate, project-level environmental review, as required by State law. Projects consistent with the Proposed Plan and the findings of this EIR may also be eligible for streamlined environmental review as permitted under CEQA. This EIR represents the City's best effort to evaluate the implementation and buildout of the Proposed Plan through its horizon year of 2031. While it is anticipated that conditions may change, the assumptions used are the best available at the time of preparation and reflect existing knowledge of patterns of development.

Proposed Plan

The Proposed Plan is a targeted update to the Housing, Land Use, Safety, and Circulation Elements of the City of Monterey General Plan (adopted in 2005) intended to respond to emerging issues and new State laws and guide development and conservation within the Planning Area through 2031. The Proposed Plan, which establishes a long-range planning framework and policies, would

fully replace the City's existing General Plan, specifically the Housing, Land Use, Safety, and Circulation Elements, if adopted by the City Council.

The General Plan update was initiated to comprehensively examine the existing conditions in the city and to create a vision for the city's future. Although the Proposed Plan does not specify or anticipate when buildout of the city will occur, a horizon of year 2031 is assumed for planning purposes. The purpose and objectives of the Proposed Plan, included below, underpin the policies and implementing actions of the Proposed Plan. A full project description is included in Chapter 2 of this Draft EIR.

Planning Area

The Planning Area encompasses 5,522 acres (8.67 square miles) of incorporated land and 3.5 square miles of water within the Monterey Bay. The Planning Area is defined as the land area addressed by the General Plan, including land within the City limits and outside City limits that bears a relation to the City's planning. The boundary of the Planning Area was determined in response to State law requiring each city to include in its General Plan all territory within the boundaries of the incorporated area as well as "any land outside its boundaries which in the planning agency's judgment bears relation to its planning" (California Government Code Section 65300). The existing city limits include residential, commercial, and industrial developments as well as public facilities, including parks and schools.

Purpose

Under State law, all California cities, towns, and counties are required to adopt a General Plan Housing Element which establishes housing objectives, policies, and programs in response to community housing conditions and needs. The City's Sixth Cycle Housing Element has been prepared to respond to current and near-term future housing needs in the City of Monterey and it provides a framework for the community's longer-term approach to addressing its housing needs.

The Housing Element contains goals, updated information, and strategic directions (policies and implementing actions) that the City is committed to undertaking. A key component of the Housing Element is the inventory of sites available for housing, presented in a table showing the location, size and zoning applicable to each site together with a projection of the number of housing units that could realistically be accommodated on the parcel in view of past trends and local conditions. By law, the Housing Element also includes an assessment of local housing needs, potential constraints to housing production, and fair housing issues. In view of that assessment, the Housing Element includes a program of actions to address identified needs, constraints, and fair housing issues.

As a built-out community, nestled between the California coast and the Santa Lucia Mountains, integrating new housing into the fabric of the Monterey community requires a thoughtful approach to land use and community character. Ensuring consistency of the Land Use Element with the newly adopted Monterey Regional Airport Land Use Compatibility Plan is also required. In addition, State law triggers requirements to incorporate new data on natural hazards and climate change into the Safety Element along with actions to strengthen community resilience and

emergency evacuation capacity. Updated policies and actions regarding emergency evacuation can be found in the Circulation Element.

Objectives

The Proposed Plan provides the basis for the City's land use and development policy and represents the basic community values, ideals, and aspirations that will govern development and conservation. Specific objectives established for the project include the following:

1. **Address Regional Housing Needs Allocation (RHNA).** Ensure capacity for the development of new housing to meet the RHNA of 3,654 housing units at all income levels for the 2023-2031 planning period.
2. **Provide a Variety of Housing Opportunities.** Provide a variety of housing opportunities proportionally by income to accommodate the needs of people who currently live, work, and go to school in Monterey, such as elderly residents, large families, students, teachers, and service and hospitality workers.
3. **Provide Equal Housing Opportunities.** Provide for fair and equal housing opportunities for all persons, regardless of protected characteristics, including but not limited to, age, ancestry, sex, gender, gender expression, sexual orientation, religion, disability, family status, race, creed, color, or national origin.
4. **Address Affordable Housing Needs.** Continue existing and develop new programs and policies to meet the projected affordable housing need of extremely low, very low, low, and moderate-income households.
5. **Address the Housing Needs of Special Need Groups.** Continue existing and develop new programs and policies to meet the projected housing needs of persons living with disabilities, unhoused people, elderly residents, students, and other special needs households in the community.
6. **Remove Potential Constraints to Housing.** Evaluate potential constraints to housing development and encourage new housing in locations supported by existing or planned infrastructure, while maintaining existing neighborhood character. Develop programs to help remove or reduce barriers to the development of housing for all income levels.
7. **Maintain Existing Housing.** Maintain the existing housing stock to assure high quality maintenance, safety, and habitability of existing housing resources.
8. **Provide Adequate Housing Sites.** Identify appropriate housing sites within specified areas that have the potential to accommodate or are proximate to transportation, shopping and schools, and the accompanying zoning required to accommodate housing development.
9. **Support a Vibrant Local Economy.** Support the vitality of local businesses, the health of the local economy, and the quality of life in the community with an improved balance of jobs and housing to help ensure that those who work in Monterey can afford to live in the community and to reduce traffic congestion, air pollution, and greenhouse gas (GHG) emissions associated with commute traffic to and from the city.

10. **Promote Sustainability and Energy Efficiency.** Continue to promote sustainability and energy efficiency in residential development to lower energy use through energy-efficient urban design and through better design and construction in individual projects.
11. **Address Risks from Natural Hazards.** Incorporate strategies to minimize loss and damage due to geologic, wildfire, flooding, and other potential hazards,
12. **Consistency with Airport Land Use Compatibility Plan.** Address airport-related hazards, compatibility zones, and airport noise contours and ensure consistency with Airport Land Use Compatibility Plan intended to protect and promote the safety and welfare of residents, business, and airport users.

Estimated Buildout of the Proposed General Plan

Buildout refers to the estimated amount of new development and corresponding growth in population and employment that is likely to take place under the Proposed Plan through the planning horizon year of 2031. Buildout estimates should not be considered a prediction for growth, as the actual amount of development that will occur through 2031 is based on many factors outside of the City's control. Therefore, buildout estimates represent one potential set of outcomes rather than definitive figures. Additionally, the designation of a site for a specific land use in the Proposed Plan does not guarantee that a site will be developed or redeveloped at the assumed density during the planning period, as future development will rely primarily on each property owner's initiative. For this EIR, buildout projections assume housing development and population growth consistent with the capacity projections in the Draft Housing Element and employment growth consistent with the increment in the Association of Monterey Bay Area Governments (AMBAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the planning period.

Table ES-1 Projected Buildout (2031) describes the growth in population, housing, and employment projected to result from buildout of the Proposed Plan in 2031. Projected increases reflect pipeline projects, and new development projections. For the purpose of a conservative estimate of potential environmental impacts, this Draft EIR considers 10,125 new residents, 5,800 new housing units, and 1,995 new jobs at buildout in 2031.

Table ES-1: Projected Buildout (2031)

	Existing (2023)	*Net New*	*Future (2031)*
Population	26,845	10,104	36,949
Housing Units	13,825	5,787	19,612
Jobs	22,246	1,991	24,237
Jobs - Housing Ratio	1.60	--	1.24

Source: AMBAG, 2022; DOF, 2023, US Census, 2023.

Alternatives to the Proposed Plan

The following alternatives are described and evaluated in Chapter 4 of this Draft EIR.

NO PROJECT ALTERNATIVE

Consistent with Section 15126.6(e)(2) of the CEQA Guidelines, the No Project Alternative represents what would be reasonably expected to occur in the foreseeable future if the Proposed Plan were not adopted and the City's current 2005 General Plan, including the 2015-2013 Housing Element, was left unchanged and in use. This Alternative would retain all current land use designations and policies from the 2005 General Plan as amended to date. There would be no changes to the current General Plan Land Use map, no new Mixed Use Neighborhood land use designation, and no new Airport Compatibility Overlay. Strategies to facilitate and incentivize housing development as needed to meet the City's assessed share of the regional housing need would not be implemented and policies related to land use, safety, and circulation would also remain unchanged.

Overall, the No Project Alternative (Current City General Plan) is projected to result in approximately 991 new residents, 511 housing units, and 1,991 new jobs in Monterey by 2031. This option assumes that Fort Ord will be constructed with industrial (employment) uses and the Highway 68 Corridor in compliance with the voter approved Highway 68 Area Plan. The Highway 68 Area Plan assumes residential and commercial development. More specifically, the 50-acre MPUSD site is currently planned for a school, 300 housing units and parks/open space uses. The current General Plan does not plan for enough housing for the 2023-2031 required RHNA allocation. Although the No Project Alternative would not achieve the project objectives and as such is not considered a feasible project alternative, it is presented below as required by the State CEQA Guidelines.

RELOCATED HOUSING GROWTH ALTERNATIVE

The Relocated Housing Growth Alternative is designed to avoid significant environmental impacts related to development at Fort Ord, including a significant and unavoidable impact related to the availability of water supply from the Marina Coast Water District as well as significant impacts related to biological resources and hazardous materials that can be reduced to a less than significant level with mitigation. Under this Alternative, a mixed-use neighborhood integrating 1,660 new homes together with jobs, schools, shops, services and recreational amenities and natural open space would not be planned and constructed. Instead, the Alternative would involve development of employment related uses at Fort Ord as envisioned in the 2005 General Plan, while housing growth would be shifted to the downtown area and key commercial corridors, including North Fremont Street, Lighthouse Avenue, Del Monte Avenue, Garden Road, Pacific Avenue, Munras Avenue, and Abrego Street. To accommodate this additional housing growth, permitted density along the commercial corridors would be increased to 60 dwelling units per acre and maximum building height would be raised to 5 stories. Development of the 50-acre MPUSD site in the Highway 68 Plan area would proceed as with the Proposed Plan, the new Airport Compatibility Overlay would be adopted, and policies related to land use, safety, and circulation would be updated to address new State law and emerging issues, as with the Proposed Plan.

Overall, the Relocated Housing Growth Alternative is projected to result in approximately 8,115 new residents, 4,183 housing units, and 1,991 new jobs in Monterey by 2031.

INCREASED WORKFORCE HOUSING ALTERNATIVE

The Increased Workforce Housing Alternative is designed to address significant and unavoidable impacts related to employment vehicle miles travelled (VMT) and the loss of agricultural grazing land within the Highway 68 Plan area. While per capita VMT would improve significantly under the Proposed Plan, robust employment growth would mean that a large number of people - many of them low wage earners employed in the hospitality and tourism sectors - would continue to commute into the Planning Area for work each day, resulting in a significant employment VMT impact. Therefore, this Alternative would involve land use and zoning changes to further increase workforce housing development in proximity to job centers and achieve an equal number of jobs and housing units in Monterey in 2031.

Specifically, this Alternative would replace office and visitor-serving uses with high density housing in the following locations: Downtown, Cannery Row, Lighthouse Avenue, North Fremont Street, Pacific Avenue, Munras Avenue, and Abrego Street. Additionally, it would transform Del Monte Avenue into a high-density residential corridor, and reduce projected job growth at Fort Ord while increasing multifamily housing adjacent to the Ryan Ranch Business Park, a major employment center within the Planning Area.

Under this Alternative, development of the 50-acre MPUSD site and other housing development envisioned under the Highway 68 Area Plan would not proceed and grazing land would remain in its current state; however, the new Airport Compatibility Overlay would be adopted, and policies related to land use, safety, and circulation would be adopted to address new State laws and emerging issues, as with the Proposed Plan. Overall, the Increased Workforce Housing Alternative is projected to result in approximately 19,070 new residents, 9,830 housing units, and 921 new jobs in Monterey by 2031.

Areas of Known Controversy

During the drafting of the Proposed Plan and this EIR, public agencies and members of the public were invited to provide feedback on the documents. The following topics were identified as areas of controversy, based on comments at public meetings on the Proposed Plan and at the EIR Scoping Meeting, and responses to the Notice of Preparation (NOP): Hazards and hazardous materials, transportation, and utilities and service systems. Additionally, environmental impacts classified as significant and unavoidable have been identified in the resource topics of agricultural resources; transportation; greenhouse gases, air quality, utilities and service systems, and wildfire; and inasmuch as they may be controversial to the general public, agencies, or stakeholders, they are described briefly here.

HAZARDS AND HAZARDOUS MATERIALS

Commenters expressed concern for comments addressed concern about existing site contamination in the Fort Ord Sites. There are seven parcels located within the Planning Area on South Boundary Road, near Ryan Ranch Office Park, that were once a part of the former Fort Ord

base. Implementation of the Proposed Plan could result in development of three parcels that are included to meet the City's RHNA obligation in the Housing Element: APNs 031-191-016-000 (36.9 acres), 031-191-003-000 (32.8 acres), and 031-191-006-000 (24 acres) for a total of 93.7 acres. None of the parcels featured in the Housing Element are in need of remediation or disposal of hazardous waste associated with the Superfund cleanup process of Fort Ord; however, there is a parcel in the Planning Area (APN 031-191-018-000) that is under remediation and transfers in 2015.[1]

Impacted sites under development would undergo remediation under oversight of applicable state and local agencies, effectively reducing the amount of contamination found in the cumulative project area. Hazardous materials are strictly regulated by local, state, and federal laws. Specifically, these laws are designed to ensure that hazardous materials do not result in a gradual increase in toxins in the environment. For each of the reasonably foreseeable projects under consideration, various project-specific measures (such as the ones identified for the Proposed Plan) would be implemented as a condition of development approval to mitigate risks associated with exposure to hazardous materials. For these reasons, the Proposed Plan, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative hazards or hazardous materials impact.

TRANSPORATION

Commenters expressed concern about development patterns that increase vehicular use and subsequent congestion, as well as support for alternative transportation options. Buildout of the Proposed Plan would result in increased development in the Planning Area and would generate additional vehicle trips on the local and regional roadway network. The General Plan Circulation Element includes policies that seek to improve mode share and reduce the impact of new traffic on alternative transportation modes. Development under the Proposed Plan would be consistent with such policies and regulations by increasing housing opportunities in already developed areas which is an integral part of VMT reduction and encouraging transportation alternatives, such as walking and biking.

As detailed in Section 3.13, employment-based land uses have a potentially significant impact under the Proposed Plan and mitigation is required. Mitigation Measure VMT-1 would require implementation of commute trip reduction programs for employers in the city with more than 50 employees. Employers can choose from a range of commute-reduction strategies that include ridesharing, discounted transit, bicycling, vanpool, or guaranteed ride home. Although the implementation of Mitigation Measure VMT-1 can be expected to reduce the total VMT per service population generated by typical uses in the Planning Area and reduce the magnitude of the impact, their effectiveness cannot be accurately estimated for the expected developments in the Planning Area, because the detailed characteristics of these future development and/or the specific strategies implemented by these future developments cannot be known at this time. Thus, this EIR conservatively assumes that the VMT reduction due to implementation of these strategies would

[1] City of Monterey, Fort Ord Property Map, 2024. Avaliable: https://files.monterey.org/Document%20Center/CommDev/Planning/Fort%20Ord%20Property%20Development/Fort-Ord-Property-Map.pdf

not be adequate to reduce the impact to a less-than-significant level. Therefore, this impact would be significant and unavoidable.

UTILITIES AND SERVICE SYSTEMS

Commenters had various concerns about future water supply. Water service for the majority of the Planning Area is provided by Cal-Am; however, approximately 135 acres of land at Fort Ord is within the MCWD service area. Cal-Am projects there will be sufficient water when new sources come online. However, it cannot be said with certainty that these new sources will be operational in the future as envisioned; thus, impacts on water supply under the Proposed Plan would be significant and unavoidable. Similarly, the reactivation of the MCWD pilot seawater desalination plant could potentially add 300 AFY of additional supply, reactivation is not within the jurisdiction of the City of Monterey and there is no reasonable plan to reactivate the plant at this time. Further, while Phase 2 of the Pure Water Monterey Expansion Project is anticipated to deliver additional water to the Seaside Basin, the project has not been proven to provide its full projected capacity, particularly during dry years. As such, it cannot be determined at this time whether the impact will in fact be mitigated to a less-than-significant level. Therefore, the impact on water supply is considered significant and unavoidable.

In addition, implementation of the Proposed Plan would also require the construction and extension of public sewer and stormwater conveyance infrastructure to areas not currently served by existing facilities, including the 50-acre MPUSD site in the Highway 68 Plan area and portions of Fort Ord. Construction or expansion of infrastructure to these areas could potentially result in environmental impacts. Construction period impacts are analyzed at a programmatic level throughout this Draft EIR. While construction period impacts related to soil erosion and noise can be mitigated to a less than significant level, construction period impacts related to air quality, biological resources, cultural and tribal cultural resources, energy, and greenhouse gas emission would remain significant and unavoidable even after implementation of all feasible mitigation measures.

AGRICULTURAL RESOURCES

The City of Monterey is located in an urbanized part of Monterey County and there are no active agricultural uses within the Planning Area. However, there is a 150-acre area of land in the southeast of the Planning Area classified as Grazing Land under the FMMP. Within this area classified by the FMMP as Grazing Land, the Highway 68 Area Plan identifies a 50-acre site as a potential location for housing development. While the development of housing on the 50-acre site would be consistent with the Highway 68 Area Plan and while there are no active agricultural activities on the site today, this would result in the conversion of Farmland classified by the FMMP to non-agricultural use, which is a potentially significant impact. Even with Mitigation Measure AG-1 which requires the project applicant to offset the loss of such lands, farmland is a finite and irreplaceable resource, and therefore not directly mitigable. Beyond limiting the area in which growth is permitted, there are no feasible mitigation measures for agricultural land conversion that would also fulfill the objectives of and implement the Proposed Plan. The impact would remain significant and unavoidable.

ENERGY, CLIMATE CHANGE, AND GREENHOUSE GAS EMISSIONS

GHG emissions from operation of the Proposed Plan would result in a net increase compared to existing conditions, primarily attributed to mobile sources. Despite this increase, the Proposed Plan's policies represent a suite of land use and building strategies that would reduce emissions from area sources, building energy consumption, water consumption, and waste generation. However, there is no guarantee that all voluntary sustainability features and practices will be incorporated into the designs and construction of all future developments to reach the maximum reductions possible. Lastly, mobile sources make up a large majority of the Proposed Plan's overall emissions as well as the increase in emissions relative to existing conditions. Although the City's direct influence over these emissions is limited, the Proposed Plan incorporates local land use strategies that promote VMT reduction, resulting in a decrease in VMT per capita. Overall, the Proposed Plan includes policies that are designed to reduce GHG impacts, in line with CARB and OPR guidance. Additionally, recommended Mitigation Measure GHG-2 would require the use of construction period best management practices for the control of construction related GHG emissions, while Mitigation Measure GHG-1 would require an update to the City Climate Action Plan to identify and incorporate additional GHG reduction strategies to achieve an additional two percent reduction in emissions by 2030 to achieve an overall reduction of 40 percent. Nevertheless, the magnitude of effect of the additional cap measures cannot be known with certainty at this time, and there therefore cannot be assumed to reduce the increase in operational emissions to a less-than-significant level. Therefore, the Proposed Plan would have a significant and unavoidable impact even after implementation of all feasible mitigation.

AIR QUALITY

Under the Proposed Plan, it is estimated that energy-source emissions of ROG and CO and area-source emissions of PM_{10} and $PM_{2.5}$ may have significant impacts. MM-AQ-1 would require projects that exceed MBARD's project emissions thresholds to incorporate project-specific mitigation measures (as necessary) and address project-level sources of criteria air pollutants. If projects exceed operational thresholds, MM-AQ-2 and MM-AQ-4 would be implemented, which promotes the use of green consumer products to reduce ROG emissions and prohibits wood fireplaces and stoves to reduce PM emissions from area sources. Reductions achieved by these measures cannot currently be quantified since project developers do not have authority to require green consumer products (although they can be encouraged), and it is unknown how many wood-burning hearths would be avoided. Therefore, operational air quality impacts are conservatively assumed to be significant and unavoidable.

Further, development under the Proposed Plan would include area-wide sources of criteria air pollutant emissions and may also result in the installation or operation of new stationary sources of TACs (e.g., emergency generators). Additionally, traffic levels are expected to increase due to the Proposed Plan (as discussed in Section 3.13: Transportation) and would therefore exacerbate existing cumulative health risks. Both new and existing sensitive receptors near these stationary sources and roadways may therefore be exposed to substantial levels of criteria air pollutants or CO hot spots in addition to significant health risks from TACs. Although it is unknown what specific sources would be installed or where they would operate, all new stationary sources would be subject to the permit authority of the MBARD, and review of new sources are subject to BACT requirements. These regulatory mechanisms would ensure that cancer and health hazard impacts from stationary sources developed under the future projects would be less than significant.

However, they may not be sufficient to address PM impacts if the source results in significant PM concentrations, especially given the existing nonattainment status for PM_{10} and the expected increase in PM emissions due to the Proposed Plan. MM-AQ-5 would reduce TAC and localized CO and PM exposure to future sensitive receptors but not for receptors at land uses that have already been constructed. Because risks associated with additional vehicle traffic are the result of personal transportation decisions, there is no feasible mitigation beyond MM-AQ-6 to address this impact. In addition, MM-AQ-6 would not apply to existing sensitive receptors that are present before new construction or operational activity. As such, these impacts are significant and unavoidable.

WILDFIRE

An evacuation route capacity analysis conducted by Kimley-Horn and Associates for the Proposed Plan concluded that, on a systemwide basis, roadways in the Planning Area would have adequate capacity for an evacuation. Even so, the analysis concluded that under this multi-hazard evacuation scenario, traffic volumes would surpass capacity as traffic approaches Highway 1 at two locations in the network. This is a potentially significant impact; therefore, mitigation measure MM-WF-1, which involves measures to temporarily increase capacity at constrained locations and proactively manage vehicle flow, is required to reduce this impact to a less than significant level. However, the highway onramps are part of the State transportation network, under the jurisdiction of Caltrans. Caltrans does not currently have a plan or funding in place to temporarily increase capacity at constrained locations and implementation of this mitigation measure is beyond the control of the City. As such, it cannot be determined at this time whether the impact will in fact be mitigated to a less than significant level. Therefore, overall, this impact is considered significant and unavoidable.

Impacts Summary and Environmentally Superior Alternative

IMPACTS SUMMARY

Table ES-2: Summary of Impacts and Mitigation Measures presents the summary of the significant impacts of the Proposed Plan identified in the EIR and the Proposed Plan mitigation measures that reduce these impacts. Detailed discussions of the impacts and proposed policies that would reduce impacts are in Chapter 3.

IDENTIFICATION OF ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The CEQA Guidelines Section 15126.6 requires the identification of an environmentally superior alternative among the alternatives analyzed in an EIR. If the No Project Alternative is identified as the environmentally superior alternative, the guidelines require another environmentally superior alternative to be identified.

Table 4-2 summarizes the alternatives' overall environmental impacts for each topic presented in Section 4.4. For the Proposed Plan, 10 impacts were expected to be significant and unavoidable, 10 impacts were expected to be less than significant with mitigation, and 46 impacts were expected to be less than significant.

For the No Project Alternative, eight impacts were expected to be significant and unavoidable, six impacts were expected to be less than significant with mitigation, and 52 impacts were expected to be less than significant. For the Relocated Housing Growth Alternative, 10 impacts were expected to be significant and unavoidable, nine impacts were expected to be less than significant with mitigation, and 47 impacts were expected to be less than significant. Similarly, for the Increased Workforce Housing Alternative, nine impacts were expected to be significant and unavoidable, 10 impacts were expected to be less than significant with mitigation, and 47 impacts were expected to be less than significant.

The No Project Alternative reduces the greatest number of environmental impacts. Since the CEQA guidelines require another environmentally superior alternative other than the No Project Alternative to be identified, the Increased Workforce Housing Alternative would be the environmentally superior alternative. This is because it avoids the Proposed Plan's significant and unavoidable impact pertaining to agricultural resources and reduces the severity of significant and unavoidable impacts related to air quality. However, the Increased Workforce Housing Alternative would not meet all the project objectives. While it would support most of the project objectives, including those related to housing production, fair housing access, and addressing the needs of disadvantaged segments of the population, it would not support local economic vitality to the same extent as the Proposed Plan. The Relocated Housing Growth Alternative also has nominally reduced the number of impacts compared to the Proposed Plan, although it would have a worse impact on an already significant and unavoidable impact on water supply. This Alternative also would not meet the City's RHNA obligations of accommodating their share of Very Low and Low (VL/L) Income housing units.

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
3.1 Aesthetics			
3.1-1 Development under the Proposed Plan would not have a substantial adverse effect on scenic vistas.	None Required	Less than Significant	N/A
3.1-2 Development under the Proposed Plan would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.	None Required	Less than Significant	N/A
3.1-3 Development under the Proposed Plan would not substantially degrade the existing visual character or quality of public views of the site and its surroundings in non-urbanized areas or conflict with applicable zoning and other regulations governing scenic quality in urbanized areas.	None Required	Less than Significant	N/A
3.1-4 Development under the Proposed Plan would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	None Required	Less than Significant	N/A
3.2 Agricultural Resources			
3.2-1: Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.	None Required	No Impact	N/A

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
3.2-2: Conflict with existing zoning for agricultural use, or a Williamson Act contract	None Required	No Impact	N/A
3.2-3: Involve other changes in the existing environment, due to their location or nature, could result in conversion of Farmland to non-agricultural use.	**MM-AG-1:** Prior to approval of a development project which would convert land classified by the FMMP as Grazing Land to non-agricultural uses, the City shall require the project applicant to offset the loss of such land at a 1:1 ratio, either through the acquisition and dedication of comparable Farmland within Monterey County or through the acquisition and dedication of a conservation easement on comparable Farmland within Monterey County. Dedication of the land or conservation easement shall be to an open space trust or comparable entity acceptable to the City. Alternately, compliance with this mitigation measure may be achieved through participation in the Monterey County Agricultural Conservation Mitigation Program.	Significant and Unavoidable	Significant and Unavoidable
3.3 Air Quality			
3.3-1 Implementation of the Proposed Plan would result in a cumulatively considerable net increase of criteria pollutants for which the Project region is nonattainment under an applicable federal or State ambient air quality standard.	**MM-AQ-1: Project-Level Air Quality Analysis.** The City shall require that applicants proposing development of projects within the Planning Area shall compare their project size with the MBARD screening sizes (Tables 5-1, 5-2, and 5-3 in the CEQA Air Quality Guidelines) appropriate to their project for criteria air pollutants generated during	Significant and Unavoidable	Significant and Unavoidable

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	constructions and operations. If the project is less than the screening sizes for the project type, then the project is not required to conduct a project-level analysis of operational and construction emissions, unless construction would involve: • Demolition; • Simultaneous occurrence of more than two construction phases (e.g., paving and building construction would occur simultaneously) or construction would occur simultaneous with other Proposed Plan development; • Simultaneous construction of more than one land use type (e.g., project would develop residential and commercial uses on the same site) (not applicable to high density infill development); • Extensive site preparation (i.e., greater than default assumptions used by the CalEEMod model for grading, cut/fill, or earth movement); or • Extensive material transport (e.g., greater than 10,000 cubic yards of soil import/export) requiring a considerable amount of haul truck activity. Projects that exceed the screening sizes or include the above activities would be required to evaluate the project's emissions		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	and compare them to MBARD daily thresholds for construction and/or operation, as applicable. If the project-level analysis results in exceedances of MBARD construction thresholds, MM AQ-2 through MM AQ-4 shall be implemented, as well as any project-specific measures. If the project's emissions are reduced to levels below MBARD thresholds with implementation of all feasible mitigation measures, impacts would be less than significant. **MM-AQ-2: MBARD Basic Construction Mitigation Measures for Air Quality.** The City shall require implementation of the following basic construction mitigation measures, as feasible, as a condition of approval of grading permits. 1. Water all active construction sites at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure. 2. Prohibit all grading activities during periods of high wind (over 15 miles per hour). 3. Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	4. Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydro seed area. 5. Haul trucks shall maintain at least two feet of freeboard. 6. Cover all trucks hauling dirt, sand, or loose materials. 7. Plant tree windbreaks on the windward perimeter of construction projects if adjacent to open land. 8. Plant vegetative ground cover in disturbed areas as soon as possible. 9. Cover inactive storage piles. 10. Install wheel washers at the entrance to construction sites for all exiting trucks. 11. Pave all roads at construction sites. 12. Sweep streets if visible soil material is carried out from the construction site. 13. Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. The phone number of Monterey Bay Air Resources District (MBARD) shall also be visible to ensure compliance with Rule 402 (Nuisance).		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	14. Limit the area under construction at any one time. **MM-AQ-3: Require at Least Tier 4 Final Engines on Construction Equipment.** All applicants proposing development of projects within the Planning Area shall require their contractors, as a condition of contract, to reduce construction-related exhaust emissions by ensuring that all off-road equipment greater than 50 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall operate on at least an EPA-approved Tier 4 Final or newer engine. Exemptions can be made for specialized equipment where Tier 4 engines are not commercially available within 200 miles of the project site. The construction contract must identify these pieces of equipment, document their unavailability, and ensure that they operate on no less than an EPA-approved Tier 3 engine. CARB regulations will result in the percentage of Tier 4 engines increasing over the next several years. Applicants must conduct recordkeeping of equipment verification documents for construction equipment and the City has the right to review equipment logs. **MM-AQ-4: Require 2010 Model Year Compliance of Diesel Truck Engines.** All		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	applicants proposing development of projects within the Planning Area shall require their contractors, as a condition of contract, to use diesel trucks that have 2010 model year or newer engines, but no less than the average fleet mix for the current calendar year as set forth in the CARB's EMFAC database. In the event that 2010 model year or newer diesel trucks cannot be obtained, the contractor must provide documentation to the City showing that a good faith effort to locate such engines was conducted. Applicants must conduct recordkeeping of truck verification documents and the City has the right to review truck logs.		
3.3-2 Implementation of the Proposed Plan would not conflict with or obstruct the implementation of the applicable air quality plan.	MM-AQ-2 through MM-AQ-4, in conjunction with any additional project-specific mitigation measures as needed under MM-AQ-1, would help reduce project-generated emissions from construction and operation of the Proposed Plan. However, because project-generated emissions could potentially lead to significant impacts (as discussed under Impact 3.3-1) that conflict with the 2016 AQMP, this impact is significant and unavoidable.	Significant and Unavoidable	Significant and Unavoidable
3.3-3 Implementation of the Proposed Plan would expose sensitive receptors to substantial pollutant concentrations.	**MM-AQ-5: Require Future Projects Proposing Stationary Sources of TACs Located within 1,000 Feet of Receptors to Perform a Health Risk Assessment.** The City shall require that all applicants proposing development of projects that would involve the installation of stationary	Significant and Unavoidable	Significant and Unavoidable

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	sources of TACs within the Planning Area and within 1,000 feet of existing sensitive receptors, as defined by the MBARD, shall prepare a site-specific health risk assessment (HRA). If the HRA demonstrates, to the satisfaction of the City, that the health risk exposures for adjacent receptors will be less than the MBARD project-level and cumulative-level thresholds, then additional mitigation would be unnecessary. However, if the HRA demonstrates that health risks would exceed the project-level or cumulative-level thresholds, additional feasible on- and off-site mitigation shall be analyzed by the applicant in coordination with the City and shall implemented by the applicant to reduce risks to the greatest extent practicable in order to achieve levels below MBARD's thresholds. **MM-AQ-6: Require Air Quality Equipment to Minimize Health Risks.** The City shall require that all applicants proposing development of projects within the Planning Area that includes new development of residential projects and other new land use developments which would site new sensitive receptors such as schools and daycares in commercial buildings and within 1,000 feet of road segments with an annual average daily		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	traffic (AADT) count of greater than 10,000 vehicles per day (based on the most current data from Caltrans' Traffic Census Program), to install indoor air quality equipment, such as enhanced air filters (air filters rated at a minimum efficiency reporting value [MERV] 13 or higher) or equivalent mechanisms, to minimize health risks for future receptors. Implementation of MM-AQ-2 through MM-AQ-4 would reduce CO, diesel, and PM (exhaust and fugitive dust) emissions during construction activities. Even with these mitigation measures, the extent of the reductions from mitigation are unknown at this time. Therefore, health risks from emissions from construction activities could expose receptors to cancer and non-cancer risks in excess of the MBARD significance thresholds and would be potentially significant. Even with the Proposed Plan's policies and mitigation measures, emissions generated by new stationary sources and vehicle trips could expose sensitive receptors to cancer and non-cancer risks above MBARD's significance thresholds. MM-AQ-1 is therefore required to provide a project-level evaluation of construction- and operational-related health risks from future projects within 1,000 feet of sensitive receptors. MM-AQ-5 would reduce TAC and localized CO and PM exposure to future sensitive receptors but not for receptors at land uses that have already been constructed. Because risks associated with additional vehicle traffic are the result of		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	personal transportation decisions, there is no feasible mitigation beyond MM-AQ-6 to address this impact. In addition, MM-AQ-6 would not apply to existing sensitive receptors that are present before new construction or operational activity commences. Therefore, after mitigation, this impact would be significant and unavoidable.		
3.3-4 Implementation of the Proposed Plan would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	None Required	Less than Significant	N/A
3.4 Biological Resources			
3.4-1 Implementation of the Proposed Plan would not have a substantial adverse effect, either directly or through habitat modifications, on 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.	**MM-BIO-1: Conduct Preconstruction Surveys for Special Status Species.** Prior to ground-disturbing activities and during the appropriate identification periods for special-status plants and wildlife listed in Tables 3.4-1 and 3.4-2, project applicants proposing development on sites with the potential for special-status species to occur shall engage a qualified biologist with prior experience conducting surveys for subject species in Monterey County to conduct field surveys within work areas and the immediately adjacent areas to determine the presence of habitat for special-status plant and wildlife species. The field surveys are to be conducted when special-status species that could	Less than Significant with Mitigation	Less than Significant

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	occur in the area are evident and identifiable, generally during the blooming or breeding period. For special-status plants, field surveys shall be conducted by a qualified botanist following the "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. "One or more surveys shall be conducted as needed to account for different special-status species identification periods. The results of field surveys shall be summarized in an accompanying report documenting all proposed work areas and the presence or absence of any sensitive resources that could be affected by development. Additionally, the report shall outline where species and/or habitat-specific mitigation measures (as required under Mitigation Measures BIO-2 through BIO-12) are required. This report will provide the basis for any applicable permit applications and consultations with regulatory agencies where incidental take may occur. **MM-BIO-2: Worker Environmental Awareness Training Program.** If it is established pursuant to Mitigation Measure BIO-1 that special status species occur on the site, prior to the issuance of grading or building permits, and for the		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	duration of construction activities, the project proponent shall demonstrate that it has in place a Construction Worker Environmental Awareness Training Program for all construction workers at the project site. All construction workers shall attend the Program prior to participating in construction activities. The Program shall be developed and conducted by a qualified biologist with experience in Monterey County. The training may be presented in video form. The Program shall include: • Information on the life history of wildlife and plant species that may be encountered during construction activities and legal protection status of each species; • The definition of "take" under the Federal Endangered Species Act and the California Endangered Species Act; • Measures the project proponent/operator is implementing to protect the species; and • Specific measures that each worker shall employ to avoid take of wildlife species, and penalties for violation of the Federal Endangered Species Act or California Endangered Species Act.		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	MM-BIO-3: Install Temporary Flagging or Barrier Fencing to Protect Sensitive Biological Resources Adjacent to the Work Area. If required pursuant to Mitigation Measure BIO-1, a qualified biologist with prior experience for subject species in Monterey County shall identify and flag or fence sensitive biological habitat on-site to ensure it is avoided during construction and pre-construction activities. Flagging or fencing shall be installed prior to site preparation activities and remain in place for the duration of construction activities. **MM-BIO-4: Avoid and Minimize Disturbance to Special-Status Plant Species.** If necessary pursuant to the results of surveys conducted under Mitigation Measure BIO-1, the work area shall be modified to the extent feasible to avoid indirect or direct impacts on special-status plants. Special-status plant species shall be avoided whenever possible by delineating and observing a no disturbance buffer of at least 50 feet from the outer edge of the plant population(s) or specific habitat type(s) required by special status plant species. If complete avoidance of special-status plants is not feasible, at a minimum the special-status plant species shall be relocated on-site, at		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	least 20 feet away from construction directly relating to the project. All site preparation, seed/cutting/root collection, grow-out, and plant installation shall be conducted by a landscape company approved by the City of Monterey with experience working on restoration projects and within the habitats present on-site. Following the relocation, the plantings/seedings shall be monitored annually for five years or longer by a botanist paid for and hired by the Project proponent to determine the success of the relocation. For individual plants, success criteria is the establishment of new viable occurrences equal to or greater in number than the number of plants impacted, for at least three years without supplemental care such as watering. On-site maintenance of the relocated plants shall be contracted to a landscaping company which will also be paid for and hired by the Project proponent. An annual report by a botanist detailing the success of the relocation shall be drafted and submitted to all responsible agencies (e.g., CDFW, USFWS) for their review. If success criteria are not met, management of the relocated plants will be modified as needed, but management and reporting		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	shall continue until success criteria are met. **MM-BIO-5: Avoid and Minimize Disturbance to Nesting Bird Species.** If required pursuant to Mitigation Measure BIO-1, a qualified biologist paid for and hired by the applicant shall conduct preconstruction surveys for active nests no more than 10 days prior to the start of ground or vegetation disturbance to maximize the probability that nests that could potentially be impacted are detected. Surveys should also cover a sufficient area around each future project site to identify nests and determine their status. A sufficient area means any area potentially affected by a project. In addition to direct impacts (i.e., nest destruction), noise, vibration, and movement of workers or equipment could also affect nests. Prior to initiation of construction activities, a qualified biologist shall conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, a qualified biologist shall continuously monitor nests to detect behavioral changes resulting from each future project. If behavioral changes occur, all work will be halted causing that change and consultation with CDFW will		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	be conducted for additional avoidance and minimization measures. If continuous monitoring of identified nests by a qualified biologist is not feasible, then a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors will be implemented. These buffers shall remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or on-site parental care for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the construction areas would be concealed from a nest site by topography. A qualified biologist shall advise and support any variance from these buffers and notify CDFW in advance of implementing a variance. **MM-BIO-6: Disturbance to Bat Species.** If required pursuant to Mitigation Measure BIO-1, a qualified biologist paid for and hired by the applicant shall conduct preconstruction surveys for bats which shall take place during the maternity roosting season (defined as: April 1		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	through August 31) within riparian habitat and any old wooden buildings within a project site. Surveys shall be conducted no less than 14 days prior to removal of trees, snags, or buildings within the project area. Ultrasonic acoustic surveys and/or other site appropriate survey method may be performed to determine the presence or absence of bats utilizing the project site as roosting or foraging habitat. Additionally, the following measures shall be implemented to lessen impacts to bats: a) If special-status bat species are detected during surveys, species and roost specific mitigation measures shall be developed by the qualified biologist. Such measures may include postponing removal of trees, snags, or structures until the end of the maternity roosting season or construction of species appropriate roosting habitat within, or adjacent to the project site. b) Trees, snags, and buildings may be removed outside of the maternity roosting season without performing preconstruction bat surveys.		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	c) Felled trees shall remain on the ground for 24 hours prior to being removed or chipped. d) For all buildings to be demolished, internal entrance surveys shall be performed by a qualified bat biologist no less than 14 days prior to demolition to determine if buildings currently or previously support roosting bats. If bats are determined to be present, appropriate methods shall be used to exclude bats from the building. Such methods may include installation of one way "valves" to allow bats to exit, but not allow them to reenter the building. e) If an identified maternity roost location is removed, species and roost appropriate mitigation shall be developed in consultation with CDFW. Mitigation shall include at minimum the replacement of a suitable roost structure within or immediately adjacent to the project site, such that similar structure shape and thermal properties are met with the replacement roost. f) If no active roosts are identified, then work may commence as planned. Survey results are valid for		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	30 days from the survey date. Should work commence later than 30 days from the survey date, surveys should be repeated. No preconstruction bat surveys are required for work conducted between the hibernation season and maternity season (i.e., September 1 through October 31). **MM-BIO-7: Disturbance to Burrowing Owl.** If feasible, construction-related ground disturbance activities shall begin outside of the burrowing owl nesting season (February 1 through August 31) and during construction the site shall be maintained in a manner that is inhospitable to burrowing owl such as keeping the site free of vegetation, ground squirrel control, and maintaining regular site disturbance by construction equipment and personnel. This will discourage burrowing owls from occupying the project site. If feasible, decommissioning-related ground disturbing activities shall begin outside of the burrowing owl nesting season (February 1 through August 31). If required pursuant to Mitigation Measure BIO-1, a qualified biologist paid for and hired by the applicant shall conduct preconstruction surveys no more than 14 days prior to initiation of		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	ground disturbing activities of the project site and surrounding areas to 150 meters in accordance with the methods outlined in the CDFW Staff Report on Burrowing Owl Mitigation (2012) or most recently adopted guidance. The first preconstruction survey will cover all areas within 150 meters of the portion of the site in which construction is scheduled to start. Surveys will be phased based on the construction schedule such that the surveys are conducted no more than 14 days ahead of the start of ground disturbance in new areas. If no occupied breeding or wintering owl burrows are identified, no further mitigation will be required. If occupied burrows are identified on the site or within 150 meters, one of the following actions shall be taken: (1) permanent avoidance of the burrow or (2) establishment of a temporary avoidance buffer followed by passive relocation and compensatory mitigation for loss of habitat in conjunction with the measures below: • If an occupied wintering burrow is discovered during preconstruction surveys, a 50-meter buffer area shall be established around the burrow until the owl leaves on its own (if the burrow is more than 50 meters off-		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	site and/or more than 50 meters from the work area, no buffer is necessary). Ground-disturbing work conducted during the nonbreeding (winter) season (September 1 to January 31) can proceed near the occupied burrow so long as the work occurs no closer than 50 meters to the burrow, and the burrow is not directly affected by the project activity. A smaller buffer may be established in consultation with CDFW and monitored at the discretion of a qualified biologist. If the 50-meter buffer cannot be maintained for the duration of occupancy by the owl, owls may be excluded from an occupied wintering burrow in accordance with the conditions of the project's Burrowing Owl Exclusion Plan, which will be submitted for approval by CDFW prior to passive relocation of any burrowing owls. • If an occupied nesting burrow is discovered during preconstruction surveys, an avoidance buffer of 200 meters shall be established around the burrow location and maintained until a qualified biologist has determined that the nest has fledged or is no longer active (a 200-meter		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	avoidance buffer is appropriate for low intensity impacts near nesting burrows during breeding season [CDFW 2012]). No project activities shall take place within the 200-meter buffer during the time in which it is in place. A smaller buffer may be established in consultation with CDFW and monitored at the discretion of a qualified biologist. • If an occupied burrow cannot be avoided, and the burrow is not actively in use as a nest, a 200-meter buffer shall be established until the burrowing owls can be excluded from burrows in accordance with the project's Burrowing Owl Exclusion Plan, which will be submitted for approval by CDFW prior to passive relocation of any burrowing owls. The Burrowing Owl Exclusion Plan is based on the recommendations made in the Staff Report on Burrowing Owl Mitigation (CDFW 2012) or most recently adopted guidance and shall include the following information for each proposed passive relocation: o Confirmation by site surveillance that the burrow(s) is empty of burrowing owls and other species;		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	○ Type of scope to be used and appropriate timing of scoping; ○ Occupancy factors to look for and what shall guide determination of vacancy and excavation timing; ○ Methods for burrow excavation; ○ Removal of other potential owl burrow surrogates or refugia on-site; ○ Methods for photographic documentation of the excavation and closure of the burrow; and ○ Monitoring of the site to evaluate success and, if needed, to implement remedial measures to prevent subsequent owl use to avoid take. Methods for assuring the impacted site shall continually be made inhospitable to burrowing owls and fossorial mammals. If an occupied burrow is identified off-site within 150 meters and passive exclusion is deemed necessary to protect the owls, burrowing owls may be excluded from burrows if permission is granted by the landowner, and in accordance with the project's Burrowing Owl Exclusion Plan, which will be		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	submitted for approval by CDFW prior to passive relocation of any burrowing owls. If burrowing owls cannot be excluded from an off-site burrow and it is not feasible to maintain an avoidance buffer as stated above, coordination will be conducted with CDFW to determine appropriate measures to minimize impacts to off-site burrowing owls. Such measures could include, but are not limited to: (1) installation of barriers between the construction or decommissioning area and the occupied burrows to block noise and views of construction or decommissioning equipment and personnel, and (2) regular monitoring by a qualified biologist to determine if construction or decommissioning activities are resulting in disturbance of the owls that could lead to nest abandonment or harm to adult owls or their young. If such disturbance was occurring, the biological monitor would have the authority to halt construction activities until further modifications could be made to avoid disturbance of the owls. If burrowing owl pairs are passively relocated, compensatory mitigation for lost wintering/breeding habitat shall be provided either through dedication of 6 acres of suitable habitat (per pair of relocated owls) at an off-site location in accordance with the conditions of the project's Burrowing Owl Exclusion Plan or through purchase of credits at a CDFW-approved mitigation bank in the region. No compensatory mitigation is required for passive relocation or eviction of transient, unpaired owls.		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	If permanent avoidance buffers are established, such areas shall be managed for the duration of the project to preserve current values as foraging habitat for burrowing owl. Management shall include: (1) exclusion of all project activities throughout the construction, operation, and decommissioning phases, including staging, parking, driving, or dumping; (2) vegetation management by grazing or mowing to preserve open, low-growing vegetation; (3) fencing to discourage human incursion; (4) signage identifying the area as a biologically sensitive area managed for burrowing owl, and; (5) a worker education and awareness program for all personnel working on the site including contractors and sub-contractors. **MM-BIO-8: Disturbance to Western Bumble Bee.** If required pursuant to Mitigation Measure BIO-1, a qualified biologist paid for and hired by the applicant shall conduct a take avoidance survey for active bumble bee colony nesting sites in any previously undisturbed area no more than 14 days prior to each phase of construction, if the work will occur during the flying season, generally between March 1 and September 1. The surveys shall occur when temperatures are above 60 degrees Fahrenheit (°F), on sunny days with wind speeds below 8 miles per hour, and at		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	least 2 hours after sunrise and 3 hours before sunset. Surveyors shall conduct transect surveys focusing on detection of foraging bumble bees and underground nests using visual aids such as binoculars. If no western bumble bees or potential western bumble bees are detected, no further mitigation is required. If potential western bumble bees are seen but cannot be identified, the applicant shall obtain authorization from CDFW within 14 days prior to groundbreaking to use nonlethal netting methods to capture bumble bees to identify them to species. If protected bumble bee nests are found, they shall be protected in place until they are no longer active as determined by a licensed entomologist. Survey results, including negative findings, shall be submitted to CDFW and the City prior to groundbreaking within 14 days of completing the take avoidance survey. **MM-BIO-9: Disturbance to Northern California Legless Lizard.** If the Northern California Legless Lizard is identified as occurring or having potential to occur in the project area pursuant to Mitigation Measure BIO-1, then the following measures will be implemented:		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	• Immediately prior to ground disturbing activities, a qualified biologist paid for and hired by the applicant will conduct a clearance survey in suitable habitat within the project work area for Northern California legless lizards. The project biologist may establish Wildlife Exclusion Fencing (WEF) to keep the species from entering the work area. If the Northern California legless lizard is observed during construction, measures will be taken to avoid the individual(s) and the species will be allowed to leave on its own volition or will be relocated outside of the work area by the project biologist. Clearance surveys will be conducted daily unless the project biologist determines that the surveys are no longer necessary. **MM-BIO-10: Disturbance to Smith's Blue Butterfly.** If the Smith's blue butterfly is identified as occurring or having potential to occur in the project area pursuant to Mitigation Measure BIO-1, then the following measures will be implemented: • Project areas within the range of these species will be surveyed by a qualified biologist paid for and hired by the applicant for seacliff buckwheat (Eriogonum latifolium), the butterfly's host plant.		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	• Host plants within the occupied habitat will be marked with high visibility flagging, fencing, or stakes, and no construction activities will occur within 10 feet of these plants. • If complete avoidance of the host plant is not feasible, then the species shall be relocated on-site pursuant to the requirements outlined in Mitigation Measure BIO-4. **MM-BIO-11: Disturbance to Monterey Shrew.** If required pursuant to Mitigation Measure BIO-1, immediately prior to ground disturbing activities in or adjacent to Monterey shrew habitat, a qualified biologist paid for and hired by the applicant shall conduct a clearance survey to identify and relocate any individuals within proposed work areas. Any individuals located during the survey shall be allowed to leave the work area on their own. All sightings of Monterey Shrew shall be reported to the California Natural Diversity Database. **MM-BIO-12: Disturbance to American Badger.** If required pursuant to Mitigation Measure BIO-1, a qualified biologist paid for and hired by the applicant shall conduct preconstruction surveys for American badger no more		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	than 14 days prior to the beginning of ground disturbance related to construction and decommissioning activities to determine if there are any American badger dens on the project site. If there are no American badger dens on the project site, no further mitigation is necessary. If American badger dens are located within the work area and cannot be avoided, a qualified biologist will determine if the dens are occupied. If unoccupied, the dens will be collapsed under the supervision of the biologist. If occupied, the biologist will determine if it is a natal/pupping den or a solitary badger den. Dens of solitary badger may be collapsed under the supervision of the biologist once the animal has vacated the den. Natal/pupping dens will be avoided by establishment of an exclusion zone around the den determined by the qualified biologist until the young are old enough to leave the den and survive on their own.		
3.4-2 Implementation of the Proposed Plan would not 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	None Required	Less than Significant	N/A

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
California Department of Fish and Game or U.S. Fish and Wildlife Service.			
3.4-3 Implementation of the Proposed Plan would not have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal areas, etc.) through direct removal, filling, hydrological interruption, or other means.	None Required	Less than Significant	N/A
3.4-4 Implementation of the Proposed Plan 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 native wildlife nursery sites.	None Required	Less than Significant	N/A
3.4-5 Implementation of the Proposed Plan would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	None Required	Less than Significant	N/A
3.4-6 Implementation of the Proposed Plan would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.	None Required	Less than Significant	N/A

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
3.5 Cultural, Historic, and Tribal Cultural Resources			
3.5-1 Implementation of the Proposed Plan would cause a substantial adverse change in the significance of a historical resource, as defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historic resource would be materially impaired (Guidelines Section 15064.5).	**MM-CUL-1: Evaluate Age-Eligible Properties That Have Not Previously Been Evaluated Prior to Development Projects to Identify Historic Resources.** As a condition of project approval for a development project proposed on a parcel within the Planning Area that includes a building, structure, or landscape more than 50 years old (typical age threshold applied by the California Office of Historic Preservation) and that has not previously been evaluated for potential historic significance, the City shall require the project applicant shall retain a professional who meets the Secretary of the of the Interior's Professional Qualifications Standards for architectural history or history (as appropriate), to conduct an evaluation of historic significance and eligibility for listing on local, State, or national registers. The evaluation shall include an Intensive survey, which is comprised of a field survey, archival research, and preparation of a historic resource evaluation report. The report shall include documentation of methodology and the findings of the historic evaluation, including a determination of historic significance and eligibility for listing on local, State, or	Less than Significant with Mitigation	Less than Significant

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	national registers. On the basis of this evaluation, if it is determined that the subject property contains an historic resource, Mitigation Measure CUL-2 shall be implemented. **MM-CUL-2: Avoidance or Minimization of Effects on Identified Historic Resources.** The project applicant shall consult with City staff to determine whether a project can be feasibly redesigned or revised to avoid significant adverse impacts on listed and identified eligible historic resource(s), including historic districts. If a local landmark or local historic district is part of a proposed development, the project's Historic Permit application must be reviewed by the Historic Preservation Commission. If avoidance of historic resource(s) is not feasible, where feasibility is defined as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors," the project sponsor shall seek to reduce the effect on historic resource(s) to a less-than-significant level pursuant to CEQA Guidelines Section 15364. Projects that conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties are		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	considered to have a less-than-significant effect on historic architectural resources.		
3.5-2 Implementation of the Proposed Plan would not cause an adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.	**MM-CUL-3 Archaeological and Tribal Cultural Assessments.** For projects in archaeologically or tribal culturally sensitive areas of the Planning Area, the City shall require project proponents to submit an assessment of the potential presence of archaeological and tribal cultural resources prepared by a qualified archeological consultant prior to project approval. The assessment shall include a site survey, a records search of the California Historical Resources Information System at the Northwest Information Center, and if warranted by the results of the assessment, recommendations for avoidance or mitigation in accordance with section 5097.98 of the California Public Resources Code, and section 7050.5 of the California Health and Safety Code, as applicable. Recommendations may include establishing conservation easements; preservation in situ of the resource; capping or covering archaeological sites; planning open space to incorporate archaeological sites; or excavation. If on the basis of the assessment it is determined that the discovery is a tribal cultural resource affiliated Native Americans tribal representatives shall be consulted and	Less than Significant with Mitigation	Less than Significant

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	invited to engage in the formulation of mitigation strategies. **MM-CUL-4: Conduct Cultural Resources Awareness Training.** Prior to the start of any ground disturbance or construction activities, developers of projects within 50 feet of a creek or within 50 feet of recorded archaeological resources or tribal cultural resources in the Planning Area shall retain a qualified professional archaeologist to conduct cultural resource awareness training for construction personnel. This training shall include an overview of what cultural resources are and why they are important, archaeological terms (such as site, feature, deposit), project site history, types of cultural resources likely to be uncovered during excavation, laws that protect cultural resources, and the unanticipated discovery protocol per the PRC Section 21083. **MM-CUL-5: Accidental Discovery.** In the event of accidental discovery of an archeological or tribal cultural resource during soils-disturbing activity of any project pursuant to the Proposed Plan, the project sponsor shall immediately suspend any soils-disturbing activities in the vicinity of the discovery and retain the services of a qualified archeological consultant to whether the discovery is an archeological		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	resource retains sufficient integrity and is of potential scientific/historical/cultural significance. The archeological consultant shall make a recommendation as to what action, if any, is warranted. If it is determined that the discovery is a tribal cultural resource, affiliated Native American tribal representatives shall be consulted and invited to engage in the formulation of mitigation strategies. Mitigation strategies may include preservation in situ of the resource, a monitoring program, a testing program, or an interpretation program.		
3.5-3 Implementation of the Proposed Plan would not have the potential to disturb human remains, including those interred outside of formal cemeteries.	**MM-CUL-3 Archaeological and Tribal Cultural Assessments.** **MM-CUL-4: Conduct Cultural Resources Awareness Training.** **MM-CUL-5: Accidental Discovery.**	Less than Significant with Mitigation	Less than Significant
3.5-4 Implementation of the Proposed Plan would not cause an adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is: (a) Listed or eligible for listing in the California Register of Historical	**MM-CUL-3 Archaeological and Tribal Cultural Assessments.** **MM-CUL-4: Conduct Cultural Resources Awareness Training.** **MM-CUL-5: Accidental Discovery.**	Less than Significant with Mitigation	Less than Significant

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or (b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			
3.6 Energy, Greenhouse Gases, and Climate Change			
3.6-1 Development under the Proposed Plan would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	**MM-GHG-1 Update Climate Action Plan.** Within 18 months of adoption of the Proposed Plan, the City shall update the City of Monterey Climate Action Plan to address changes in State GHG reduction goals, including SB 32, EO B-55-18, AB 1279, and the CARB 2022 Scoping Plan, and meet the requirements for a Qualified GHG Reduction Strategy under CEQA. The update shall incorporate specific, measurable GHG reduction strategies that address each emissions source sector, are prioritized by timeframe (i.e., 2030 for near term and 2045 for long term) and are assigned to a lead agency/organization for implementation. The CAP Update shall incorporate the most recent	Significant and Unavoidable	Significant and Unavoidable

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	communitywide GHG Inventory and strategies that would achieve at least an additional two percent reduction by 2030 to ensure citywide target of 40 percent reduction. The CAP shall target top-contributing emissions sectors (especially the transportation sector, which represents more than 60 percent of operational emissions), such as by adapting CARB's recommended key project attributes for VMT reduction into citywide programs. GHG reduction strategies to be considered shall include: prohibiting woodburning or natural gas fireplaces in new construction, making new construction solar-ready, and requiring new multifamily construction to exceed Title 24 electric vehicle charging station requirements by 15 percent. The CAP shall also incorporate a CEQA checklist to streamline project approval and encourage use of CARB's recommended key project attributes that reduce GHGs (as included in the CARB 2022 Scoping Plan). **MM-GHG-2 Construction Best Management Practices to Minimize GHGs.** All applicants within the Planning Area shall require their contractors, as a condition of contract, to reduce construction-related GHG emissions by implementing recommended best		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	management practices, including (but not limited to) the following measures (based on the Bay Area Air Quality Management District's 2022 CEQA Air Quality Guidelines): • Ensure alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment make up at least 15 percent of the fleet. • Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than two minutes (A five-minute limit is required by the state airborne toxics control measure [CCR, Title 13, Sections 2449(d)(3) and 2485]). Provide clear signage that posts this requirement for workers at the entrances to the site and develop an enforceable mechanism to monitor idling time to ensure compliance with this measure. • Prohibit off-road diesel-powered equipment from being in the "on" position for more than 10 hours per day. • Require all construction equipment is maintained and properly tuned in accordance with manufacturer's		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	specifications. Equipment should be checked by a certified mechanic and determined to be running in proper condition prior to operation. • Where grid power is available, prohibit portable diesel engines and provide electrical hook ups for electric construction tools, such as saws, drills and compressors, and using electric tools whenever feasible. • Recycle or salvage nonhazardous construction and demolition debris, with a goal of recycling at least 15 percent more by weight than the diversion requirement in Title 24. • Use locally sourced (within 100 miles of the Planning Area) or recycled materials for construction materials (goal of at least 10 percent based on costs for building materials and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products used should be certified through a sustainable forestry program. • Develop a plan to efficiently use water for adequate dust control since substantial amounts of energy can be		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	consumed during the pumping of water. Although implementation of the mitigation measures above would help significantly reduce GHG emissions generated during construction and operation of the Proposed Plan and achieve the additional two-percent reduction in GHG emissions to meet the short-term GHG reduction target for 2030, without further State action, it is unlikely that local efforts alone would be sufficient to meet carbon neutrality by 2045 (or 85 percent below 1990 levels) and thereby reduce the impact to a less-than-significant level. Moreover, CARB's 2022 Scoping Plan indicates that carbon sequestration from natural and working lands will not be enough to attain carbon neutrality, and doing so will require research, development, and implementation of additional measures. CARB maintains authority to adopt regulations as necessary to meet future GHG targets under SB 32, EO S-3-05, EO B-55-18, and AB 1279, but the specific path to carbon neutrality is unknown and dependent on development of technologies and programs that are not currently known or available.; therefore, this impact is significant and unavoidable.		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
3.6-2 Development under the Proposed Plan would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Implementation of **MM-GHG-1** would require an update the City's CAP to incorporate additional measures to achieve at least an additional 2 percent reduction in GHG emissions with specific strategies targeted toward transportation-related emissions, which account for more than 60 percent of all GHG emission in the Planning Area. Implementation of MM-GHG-2 would require the use of best management practices to reduce GHG emissions from construction activities. Implementation of these measures would further reduce GHG emissions resulting from Project implementation; however, as the CAP Update has not yet been adopted it cannot be determined with certainty that the measures necessary to meet reduction targets will be implemented. Therefore, even after implementation of all feasible mitigation, impacts related to conflicts with plans, policies, and regulations adopted for the purpose of reducing GHG emissions would remain significant and unavoidable.	Significant and Unavoidable	Significant and Unavoidable
3.6-3 Implementation of the Proposed Plan would not cause wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.	None Required	Less than Significant	N/A
3.6-4 Implementation of the Proposed Plan would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.	None Required	Less than Significant	N/A

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
3.7 Geology, Soils, and Seismicity			
3.7-1 Implementation of the Proposed Plan would not expose residents, visitors, and employees, as well as public and private structures, to substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault; strong seismic ground shaking; seismically related ground failure, including liquefaction; or landslides.	None Required	Less than Significant	N/A
3.7-2 Implementation of the Proposed Plan would not result in substantial soil erosion or the loss of topsoil.	None Required	Less than Significant	N/A
3.7-3 Implementation of the Proposed Plan would not locate structures on expansive soils or on a geologic unit or soil that is unstable, or that would become unstable as a result of new development under the Proposed Plan, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse, or create substantial risks to life or property.	None Required	Less than Significant	N/A
3.7-4 Implementation of the Proposed Plan would not 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.	None Required	Less than Significant	N/A
3.7-5 Implementation of the Proposed Plan would not have soils incapable of adequately supporting the use of septic tanks or	None Required	Less than Significant	N/A

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.			
3.7-6 Implementation of the Proposed Plan would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	**MM-GEO-1: Worker Awareness Training.** Prior to commencing construction, and ongoing throughout ground-disturbing activities (e.g., excavation, utility installation, the applicants proposing development of projects within the Planning Area and/or their designee shall ensure that all project construction workers are trained on the contents of a paleontological resources alert sheet, as provided by the department. The paleontological resources alert sheet shall be prominently displayed at the construction site during ground-disturbing activities for reference regarding potential paleontological resources. In addition, the project applicant shall inform the contractor and construction personnel of the immediate stop work procedures and other procedures to be followed if bones or other potential fossils are unearthed at the project site. Should new workers who will be involved in ground-disturbing construction activities begin employment after the initial training has occurred, the construction supervisor shall ensure that they receive the worker awareness training as described above.	Less than Significant with Mitigation	Less than Significant

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	The applicant shall complete a standard form/affidavit confirming the timing of the worker awareness training to the City. The affidavit shall confirm the project's location, the date of training, the location of the informational handout display, and the number of participants. The affidavit shall be transmitted to the City within five business days of conducting the training. **MM GEO-2: Halt Construction, Maintenance, or Landscaping Activity in Case of Finding Paleontological Resources, Evaluate Find, and Excavate Find.** In the event that previously unidentified paleontological resources are uncovered during site preparation, excavation, or other ground-disturbing activity, applicants proposing development of projects within the Planning Area shall cease all such activity within 25 feet of the discovery or ensure that all such activity within 25 feet of the discovery ceases until the resources have been evaluated by a qualified professional and specific measures can be implemented to protect these resources in accordance with Public Resources Code Section 5097.5. If the qualified paleontologist determines the find is potentially significant, the project applicant shall ensure a qualified paleontologist shall excavate the find in compliance with state		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	law, document the find, and arrange for curation at a depository, keeping project delays to a minimum. If the qualified paleontologist determines the find is not significant, then the project will continue without delay.		
3.8 Hazards, Hazardous Materials, and Wildfire			
3.8-1 Implementation of the Proposed Plan would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	None Required	Less than Significant	N/A
3.8-2 Implementation of the Proposed Plan would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	None Required	Less than Significant	N/A
3.8-3 Implementation of the Proposed Plan 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.	None Required	Less than Significant	N/A
3.8-4 Implementation of the Proposed Plan would not result in development located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.	**MM-HAZ-1: Remediation of Unexploded Ordnance at Fort Ord.** Prior to issuance of a building permit for residential or mixed use development on APN 031-191-018-000 (referred to as parcel E29.1), the City shall require documentation demonstrating that soil and water on the parcel have been	Less than Significant with Mitigation	Less than Significant

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	remediated consistent with the Residential Quality Assurance (RQA) process (or equal) and that the residential restriction has been removed by DTSC.		
3.8-5 Implementation of the Proposed Plan would not result in development 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 uses airport, and would result in a safety hazard or excessive noise for people residing or working in the Planning Area.	None Required	Less than Significant	N/A
3.8-6 Implementation of the Proposed Plan would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	**MM-WF-1:** The following measures shall be implemented to increase capacity and improve vehicle flow at locations projected to have a high volume-to-capacity ratio in the event of an emergency evacuation: • Mitigate congestion and delay at the interchanges of Fremont Street-Highway 1 and Soledad Drive-Highway 1 by temporarily widening highway ramps by placing traffic cones to indicate two lanes to accommodate a higher volume of evacuating vehicles. • Deploy adaptive traffic signal control systems that dynamically respond to real-time traffic conditions at the interchanges of Fremont Street-Highway 1 and Soledad Drive-Highway 1, giving priority to	Less than Significant with Mitigation	Less than Significant

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	evacuation traffic and improving the efficiency of traffic flow during emergencies.		
3.8-7 Implementation of the Proposed Plan would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. .	None Required	Less than Significant	N/A
3.9 Hydrology and Water Quality			
3.9-1 Implementation of the Proposed Plan would not violate any federal, State, or local water quality standards or waste discharge requirements.	None Required	Less than Significant	N/A
3.9-2 Implementation of the Proposed Plan would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	None Required	Less than Significant	N/A
3.9-3 Implementation of the Proposed Plan would not 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, siltation, or flooding on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; create or contribute runoff water which would exceed the capacity of existing or planned	None Required	Less than Significant	N/A

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows.			
3.9-4 In flood hazard, tsunami, or seiche zones, implementation of the Proposed Plan would not risk release of pollutants due to project inundation.	None Required	Less than Significant	N/A
3.9-5 Implementation of the Proposed Plan would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	None Required	Less than Significant	N/A
3.10 Land Use, Population, and Housing			
3.10-1 Development under the Proposed Plan would not physically divide an established community.	None Required	No Impact	N/A
3.10-2 Development under the Proposed Plan would not 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.	None Required	No Impact	N/A
3.10-3 Development under the Proposed Plan would not 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).	None Required	Less than Significant	N/A
3.10-4 Development under the Proposed Plan would not displace substantial numbers of	None Required	Less than Significant	N/A

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
existing people or housing, necessitating the construction of replacement housing elsewhere.			
3.11 Noise			
3.11-1 Implementation of the Proposed Plan would not 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.	None Required	Less than Significant	N/A
3.11-2 Development under the Proposed Plan would not generate excessive groundborne vibration or groundborne noise levels.	None Required	Less than Significant	N/A
3.11-3 The Proposed Plan would not be located within the vicinity of a private airstrip or an airport land use plan or expose people residing or working in the Planning Area to excessive noise levels.	None Required	Less than Significant	N/A
3.12 Public Services and Recreation			
3.12-1 Implementation of the Proposed Plan would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public	**MM PF-1:** In parallel with preparation of the Fort Ord/Ryan Ranch Specific Plan pursuant to Program 1-H of the proposed Housing Element, the City shall: • Identify in the southeastern part of the Planning Area a location for the station that minimizes disruption to sensitive ecosystems, wildlife habitats, and natural resources;	Less than Significant with Mitigation	Less than Significant with Mitigation

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
services: fire protection, police protection, schools, parks, or other public facilities.	• Require the use of stormwater management measures to control and treat stormwater runoff to prevent pollution and soil erosion during construction; • Develop a plan for the proper handling, recycling, and disposal of construction waste to minimize the impact on local landfills and ecosystems; • Establish erosion control measures, which may include erosion control barriers, sediment traps, and other best management practices to prevent soil erosion and sedimentation of nearby water bodies; • Require measures to protect and preserve existing vegetation, including trees and native plants, during construction activities; • Implement best management practices to minimize noise and air pollution during construction, including dust and emissions control measures; and • Require the use of fire-safe building materials and design features to limit the risk of damage or loss due to wildfire.		

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
3.12-2 Development under the Proposed Plan would not 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	None Required	Less than Significant	N/A
3.12-3 Development under the Proposed Plan would not require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	None Required	Less than Significant	N/A
3.13 Transportation			
3.13-1 Implementation of the Proposed Plan would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities.	None Required	Less than Significant	N/A
3.13-2 Implementation of the Proposed Plan would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).	**MM-TRANS-1: Implement Commute Trip Reduction Program.** Within one year of adoption of the Proposed Plan, the City shall adopt an Employee Commute Trip Reduction (CTR) Program that establishes requirements for businesses employing 50 or more people in the City of Monterey to offer incentives and resources aimed at reducing the number and length of drive-alone commutes to worksite(s). The CTR Program shall identify a range/menu of actions that employers may use to incentivize alternatives to single occupant vehicle commute trips, such as:	Significant and Unavoidable	Significant and Unavoidable

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	• Offering free or subsidized transit passes; • Providing secure bike storage and lockers to encourage bicycle commuting; • Allowing employees to work from home some or all of the time; • Offering vouchers, cash, or paid time-off incentives to employees who carpool, bike or walk to work; • Providing priority parking for carpools and vanpools.		
3.13-3 Implementation of the Proposed Plan would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment).	None Required	Less than Significant	N/A
3.13-4 Implementation of the Proposed Plan would not result in inadequate emergency access.	None Required	Less than Significant	N/A
3.14 Utilities and Service Systems			
3.14-1 Water providers would have insufficient water supplies available to serve the Planning Area and reasonably foreseeable future development during normal, dry and multiple dry years. While feasible measures to increase supply as needed have been identified, it cannot be said with certainty	**MM-UTIL-1: Water Efficiency Measures for New Development and Remodels.** New development and remodels in the Planning Area shall be required as a condition of project approval to implement the Monterey Peninsula Water Management District's Rule 142 Water Efficiency Standards, as applicable,	Significant and Unavoidable	Significant and Unavoidable

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
that supply will be available by 2030. As such, the impact remains significant and unavoidable even after implementation of all feasible mitigation.	in order to minimize the use of water. For reference, Rule 142 Water Efficiency Standards are included in Appendix H to this Draft EIR. **MM-UTIL-2: Expand MCWD Sources of Supply.** MCWD shall implement measures to increase sources of water supply, including reactivation of the pilot seawater desalination plant and Indirect Potable Reuse of advanced treated water from the Pure Water Monterey project. The measures shall be sufficient to generate an additional 199.2 AFY by 2030, as needed to support new development within the City of Monterey that will be served by MCWD.		
3.14-2 Implementation of the Proposed Plan would also require the construction and extension of public sewer and stormwater conveyance infrastructure to areas not currently served by existing facilities, which could potentially result in environmental impacts. While construction period impacts related to soil erosion and noise can be mitigated to a less than significant level, construction period impacts related to air quality, biological resources, cultural and tribal cultural resources, energy and greenhouse gas emissions would remain significant and unavoidable even after implementation of all feasible mitigation measures.	**MM-AQ-2: MBARD Basic Construction Mitigation Measures for Air Quality.** **MM-AQ-3: Require at Least Tier 4 Final Engines on Construction Equipment.** **MM-AQ-4: Require 2010 Model Year Compliance of Diesel Truck Engines.** **MM-BIO-1: Conduct Preconstruction Surveys for Special Status Species.** **MM-BIO-2: Worker Environmental Awareness Training Program.** **MM-CUL-4: Conduct Cultural Resources Awareness Training.**	Significant and Unavoidable	Significant and Unavoidable

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	MM-GHG-2: Construction Best Management Practices to Minimize GHGs.		
3.14-3 Implementation of the Proposed Plan would not result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	None Required	Less than Significant	N/A
3.14-4 Implementation of the Proposed Plan would not 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.	None Required	Less than Significant	N/A
3.14-5 Implementation of the Proposed Plan would comply with federal, State, and local management and reduction statutes and regulations related to solid waste.	None Required	Less than Significant	N/A
3.15 Wildfire			
3.15-1 Implementation of the Proposed Plan would substantially impair an adopted emergency response plan or emergency evacuation plan.	**MM-WF-1:** The following measures shall be implemented to increase capacity and improve vehicle flow at locations projected to have a high volume-to-capacity ratio in the event of an emergency evacuation: • Mitigate congestion and delay at the interchanges of Fremont Street-Highway 1 and Soledad Drive-Highway 1 by	Significant and Unavoidable	Significant and Unavoidable

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
	temporarily widening highway ramps by placing traffic cones to indicate two lanes to accommodate a higher volume of evacuating vehicles. • Deploy adaptive traffic signal control systems that dynamically respond to real-time traffic conditions at Fremont Street-Highway 1 interchange, giving priority to evacuation traffic and improving the efficiency of traffic flow during emergencies.		
3.15-2 Implementation of the Proposed Plan would not exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	None Required	Less than Significant	N/A
3.15-3 Implementation of the Proposed Plan would not 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.	**MM-WF-2:** The City shall adopt an underground utility district applicable to areas within the Highway 68 Area Plan and the Fort Ord Reuse Area that are identified on Map 3-14 Sites Available for Housing of the Housing Element and that are both adjacent to and within 1,000 linear feet of a VHFHSZ designated by the California Department of Forestry and Fire Protection. The underground utility district shall require that all new electrical poles, overhead wires, and associated overhead structures be installed underground in order to reduce wildfire risks and promote public safety.	Less than Significant with Mitigation	Less than Significant

Table ES-2: Summary of Impacts and Mitigation Measures			
Impact	*Mitigation Measures*	*Significance before Mitigation*	*Significance after Mitigation*
3.15-4 Implementation of the Proposed Plan would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	None Required	Less than Significant	N/A

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1 Introduction

This Draft Environmental Impact Report (EIR) has been prepared on behalf of the City of Monterey (City) in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, *et seq*.). This EIR analyzes potential environmental impacts of the adoption and implementation of the proposed City of Monterey 2031 General Plan Update, referred to as the "Proposed Plan." This chapter outlines the purpose and overall approach to the preparation of the EIR. The City is the lead agency responsible for ensuring that the Proposed Plan complies with CEQA. "Lead agency" is defined by Section 21067 of CEQA as "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment."

1.1 Purpose of the EIR

The primary intent of CEQA is to ensure that public agency decision-makers document and consider the environmental implications of their actions in order to avoid or minimize environmental damage that could result from the implementation of a project wherever feasible, and to balance environmental, economic, and social objectives. The purpose of an EIR is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided (CEQA Section 21002.1).

PURPOSE

This EIR serves the following purposes:

- To satisfy CEQA requirements for analysis of environmental impacts by including a complete and comprehensive programmatic evaluation of the physical impacts of adopting and implementing the Proposed Plan;
- To recommend a set of measures to mitigate any significant adverse impacts;
- To analyze a range of reasonable alternatives to the Proposed Plan;
- To inform decision-makers and the public of the potential environmental impacts of the Proposed Plan prior to taking action on the Proposed Plan, and to assist City officials in reviewing and adopting the Proposed Plan; and

- To provide a basis for the review of subsequent development projects and public improvements proposed within the city. Subsequent environmental documents may be tiered from the Final EIR.

The Proposed Plan consists of a regulatory framework to accommodate the future development of the city, as described in Chapter 2: Project Description. This EIR contains analysis of all potential environmental impacts expected to result from implementation of the various policies and programs identified as part of the Proposed Plan, including those that serve to avoid or minimize adverse environmental impacts. In accordance with CEQA requirements, this EIR also identifies and evaluates alternatives to the Proposed Plan, including a No Project Alternative, Relocated Housing Growth Alternative, and an Increased Workforce Housing Alternative. An environmentally superior alternative is identified as part of the Alternatives analysis.

This EIR evaluates at a programmatic level the potential environmental impacts of the Proposed Plan given its 2031 planning horizon. It can be anticipated that conditions will change; however, the assumptions used are the best data and information available at the time of EIR preparation and reflect existing knowledge of patterns of development.

INTENDED USES OF THE EIR

The California Environmental Quality Act, Public Resources Code Section 21000, *et seq.* (CEQA) Guidelines (Section 15124(d)) require EIRs to identify the agencies that are expected to use the EIR in their decision-making, and the approvals for which the EIR will be used. This EIR will inform the City, in addition to other responsible agencies, persons, and the general public, of the potential environmental effects of the Proposed Plan and the identified alternatives. The City will use the EIR as part of its review and approval of the Proposed Plan. Other agencies that may use the EIR include local and regional agencies such as the Monterey Police Department (MPD), the Monterey Fire Department (MFD), the Monterey Peninsula Unified School District (MPUSD), the Monterey Peninsula Water Management District (MPWMD), and the Association of Monterey Bay Area Governments (AMBAG); and State agencies such as the California Department of Transportation (Caltrans).

1.2 Approach and Scope of the EIR

TYPE OF EIR

This EIR is a program EIR, defined in Section 15168 of the CEQA Guidelines as: "[An EIR addressing a] series of actions that can be characterized as one large project and are related either: (1) Geographically; (2) A[s] logical parts in the chain of contemplated actions; (3) In connection with the issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or (4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental impacts which can be mitigated in similar ways."

Program EIRs can be used as the basic, general environmental assessment for an overall program of future projects, policies, and related implementation actions, such as the Proposed Plan. A program EIR has several advantages. First, it provides a basic reference document to avoid unnecessary repetition of facts or analysis in subsequent project-specific assessments. Second, it allows the lead agency to look at the broad, regional impacts of a program of actions before its adoption and eliminates redundant or contradictory approaches to the consideration of regional and cumulative effects.

As a programmatic document, this EIR presents an assessment of the potential impacts of the Proposed Plan on the entirety of the Planning Area which encompasses about 8.67 square miles, shown in Figure 2.1. It does not separately evaluate subcomponents of the Proposed Plan, nor does it assess project-specific impacts of potential future developments under the Proposed Plan, all of which are required to comply with CEQA and/or the National Environmental Policy Act (NEPA) as applicable.

As a program EIR, the preparation of this document does not relieve the sponsors of specific projects from the responsibility of complying with the requirements of CEQA (and/or NEPA for projects requiring federal funding or approvals). As noted, individual projects are required to prepare a more precise, project-level analysis to fulfill CEQA and/or NEPA requirements. The lead agency responsible for reviewing these projects shall determine the level of review needed, and the scope of that analysis will depend on the specifics of the particular project. These projects may, however, use the discussion of impacts in this EIR as a basis of their assessment of these regional, citywide, or cumulative impacts, provided that the projects are consistent with the Proposed Plan and the data and assumptions used in this EIR remain current and valid.

ENVIRONMENTAL ISSUE AREAS

Information gathered about the environmental setting is used to define relevant planning issues, determine thresholds of significance, and evaluate potential impacts. Based on the initial analysis of environmental setting and baseline conditions in the Notice of Preparation (NOP) and comments on the (NOP), both of which are included in Appendix A of this DEIR, the following issues are analyzed in this program EIR:

- Aesthetics
- Agricultural Resources
- Forestry Resources
- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Energy, Greenhouse Gas Emissions, and Climate Change
- Geology and Soils
- Hazards and Hazardous Materials

- Hydrology and Water Quality
- Land Use, Population, and Housing
- Mineral Resources
- Noise
- Public Services and Recreation
- Transportation
- Utilities and Service Systems
- Wildfire

PLANNING HORIZON

For analytic purposes in this EIR, the base year is 2023 and the horizon year representing future conditions is 2031, unless otherwise noted. In cases where current data is not available, the most recent known data is used to depict baseline conditions. The horizon year of 2031 represents the target year of the Proposed Plan when projects and programs are anticipated to be fully implemented.

ALTERNATIVES

CEQA requires EIRs to evaluate a reasonable range of alternatives to the Proposed Plan that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the significant environmental impacts. This EIR evaluates two alternatives, including a Relocated Housing Growth Alternative and an Increased Workforce Housing Alternative. A No Project Alternative was considered but determined infeasible, given that State law requires each city and county in California adopt an updated Housing Element every eight years and plan to accommodate its share of the regional housing need. The Proposed Plan will create the regulatory framework to accommodate the city's regional housing need.

1.3 Planning Process and Public Involvement

NOTICE OF PREPARATION AND PUBLIC PARTICIPATION

A NOP for the EIR on the Proposed Plan was submitted to the State Clearinghouse on August 02, 2023, and circulated among relevant State and local agencies, as well as to members of the public. The City received a total of 16 comment letters, including six from State public agencies and ten comment letters from individuals or organizations during the NOP's 30-day review period, which ended on September 04, 2023. The NOP and comments on the NOP received by the City are included as Appendix A of this EIR. Consistent with legal requirements and State guidance, an EIR Scoping Meeting was held at the Monterey Conference Center on August 7, 2023, to receive suggestions on scope and content for the EIR; solicit input on potential impacts, mitigation measures, and alternatives to consider; and consult with public agencies responsible for natural resources, other regulatory bodies, neighboring communities, Native American tribes, and

members of the public. Comments on the NOP, along with input received during public workshops and meetings over the course of the Proposed Plan's process, have helped to identify the major planning and environmental issues and concerns and establish the framework of this EIR.

TRIBAL CONSULTATION (SB 18 AND AB 52)

Senate Bill (SB) 18, codified in California Government Code (CGC) Section 65352.3, requires local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of protecting, and/or mitigating impacts to cultural places prior to the adoption or amendment of a general plan. Additionally, Assembly Bill (AB) 52 requires tribal cultural resources to be addressed under CEQA and established requirements for consultation with Native American tribes as part of the CEQA process, providing both federal and non-federally recognized tribes the right to formal consultation with project lead agencies (California Public Resources Code [PRC] Section 21080.3.1). In accordance with SB 18 and AB 52, the City contacted the NAHC on October 6, 2022 to request a consultation list of tribes traditionally and culturally affiliated with the city. Upon receipt of a list of tribal contacts, the City contacted tribal representatives in July 2023 providing information about the planning process and inviting them to initiate consultation under AB 52 if desired. No response or formal request for tribal consultation has been received. Correspondence with the NAHC and tribal contacts is included in Appendix D. Additionally, the NOP was shared with the NAHC and in August 2023, the NAHC responded with recommendations for conducting cultural resources assessments.

The record search of the NAHC Sacred Lands File (SLF) was completed and the results were positive. As such, the environmental setting in the Planning Area and the sites of known Native American archaeological resources in the Planning Area indicate that there is potential for the Planning Area to contain tribal cultural resources from past Native American activities.

DRAFT EIR REVIEW

The CEQA Guidelines establish that the public review period for a draft EIR that has been submitted to the State Clearinghouse for review by State agencies shall be no shorter than 45 days (CCR 15105). This Draft EIR is available for review to the public and interested and affected agencies for a period of 45 days. The purpose of the review period is to obtain comments "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided and mitigated" (CCR Section 15204). The EIR and appendices are available for review within the Planning Office at 570 Pacific Street, the Library at 625 Pacific Street, and online at https://haveyoursaymonterey.org/monterey2031.

Please submit comments on this Draft EIR in writing or via email to:

Christy Sabdo, AICP, Senior Associate Planner
City of Monterey
570 Pacific Street

Monterey, CA 93940
Email: sabdo@monterey.org
Phone: (831) 646-3758

After the close of the public review period, City staff and CEQA consultants will review the comments, respond to the comments received, and determine whether any changes are required to the EIR. The City Council will then consider certification of the Final EIR. Subsequent to certification of the Final EIR, the City Council may approve the Proposed Plan. If the City Council approves the Proposed Plan, a Notice of Determination will be filed with the State Office of Planning and Research and the Clerk of Monterey County.

1.4 Other Relevant Plans and Environmental Studies

Plans and studies relevant to the Proposed Plan include the following:

- Monterey County Multijurisdictional Local Hazard Mitigation Plan (2022)
- AMBAG 6th Cycle Regional Housing Needs Allocation Plan 2023-2031 (2022)
- Monterey County Regional Transportation Plan (2022)
- City of Monterey Downtown Specific Plan (Adopted 2013; Amended 2023)
- City of Monterey Climate Action Plan (2016)
- City of Monterey Local Coastal Land Use Plan (2016)
- City of Monterey Lighthouse Specific Plan (Adopted 2016; Amended 2023)
- City of Monterey North Fremont Specific Plan (Adopted 2014; Amended 2016)
- City of Monterey Parks & Recreation Master Plan (2016)
- City of Monterey Villa Del Monte Neighborhood Revitalization Plan (2016)
- City of Monterey Waterfront Master Plan (2016)
- City of Monterey Sea Level Rise and Vulnerability Analyses (2016)
- City of Monterey General Plan (2005)

1.5 Organization of the EIR

This Draft EIR is organized into the following chapters, plus appendices:

ES. **Executive Summary.** Summarizes the EIR by providing an overview of the Proposed Plan, the potentially significant environmental impacts that could result from the Proposed Plan, the mitigation measures identified to reduce or avoid these impacts, alternatives to the Proposed Plan, and identification of the environmentally superior Alternative.

1. **Introduction.** Introduces the purpose of the EIR, explains the EIR process and intended uses of the EIR, and describes the overall organization of this EIR.

2. **Project Description.** Describes in detail the Proposed Plan, including its location and boundaries, purpose and objectives, and projected buildout.

3. **Environmental Analysis.** Analyzes the environmental impacts of the Proposed Plan. Impacts are organized by major topic. Each topic area includes a description of the environmental setting, significance criteria, methodology, and potential impacts.

4. **Analysis of Alternatives.** Presents a reasonable range of alternatives to the Proposed Plan, provides discussion of environmental impacts associated with each alternative, compares the relative impacts of each alternative to those of the Proposed Plan and other alternatives, discusses the relationship of each alternative to the Proposed Plan's objectives, and identifies the environmentally superior alternative.

5. **CEQA Required Conclusions.** Summarizes significant environmental impacts, including growth-inducing, cumulative, and significant and unavoidable impacts; significant irreversible environmental change; and impacts found not to be significant.

6. **List of Preparers.** Identifies the persons and organizations that contributed to the preparation of the EIR.

7. **Appendices**. Includes the NOP and compilation of agency and public comments received on the NOP, as well as other technical appendices including data used for environmental analysis in this EIR.

2 Project Description

2.1 Introduction

Consistent with Section 15168 of the CEQA Guidelines, this Draft Environmental Impact Report (EIR) provides a programmatic analysis of the environmental impacts associated with implementation of the goals, policies, and actions and the projected buildout of the Monterey 2031 General Plan Update (Proposed Plan).[1] California Government Code Section 65300 et seq. mandates that all counties and incorporated cities prepare a general plan that establishes policies and standards for future development, housing affordability, and resource protection. State law encourages cities to keep general plans current through regular updates. The Proposed Plan is a targeted update to the City's 2005 General Plan, specifically the Housing, Safety, Land Use, and Circulation Elements, and would guide future land use decisions in the City of Monterey, providing a long-term vision for the city and, through its policies and implementing actions, would indicate how that vision may be achieved over the life of the document. It would be the primary policy document guiding growth and development within the City of Monterey through the planning horizon year of 2031. Together with the Zoning Ordinance and related sections of the Municipal Code, the Proposed Plan would serve as the basis for planning-related decisions made by City staff, the Planning Commission, and the City Council.

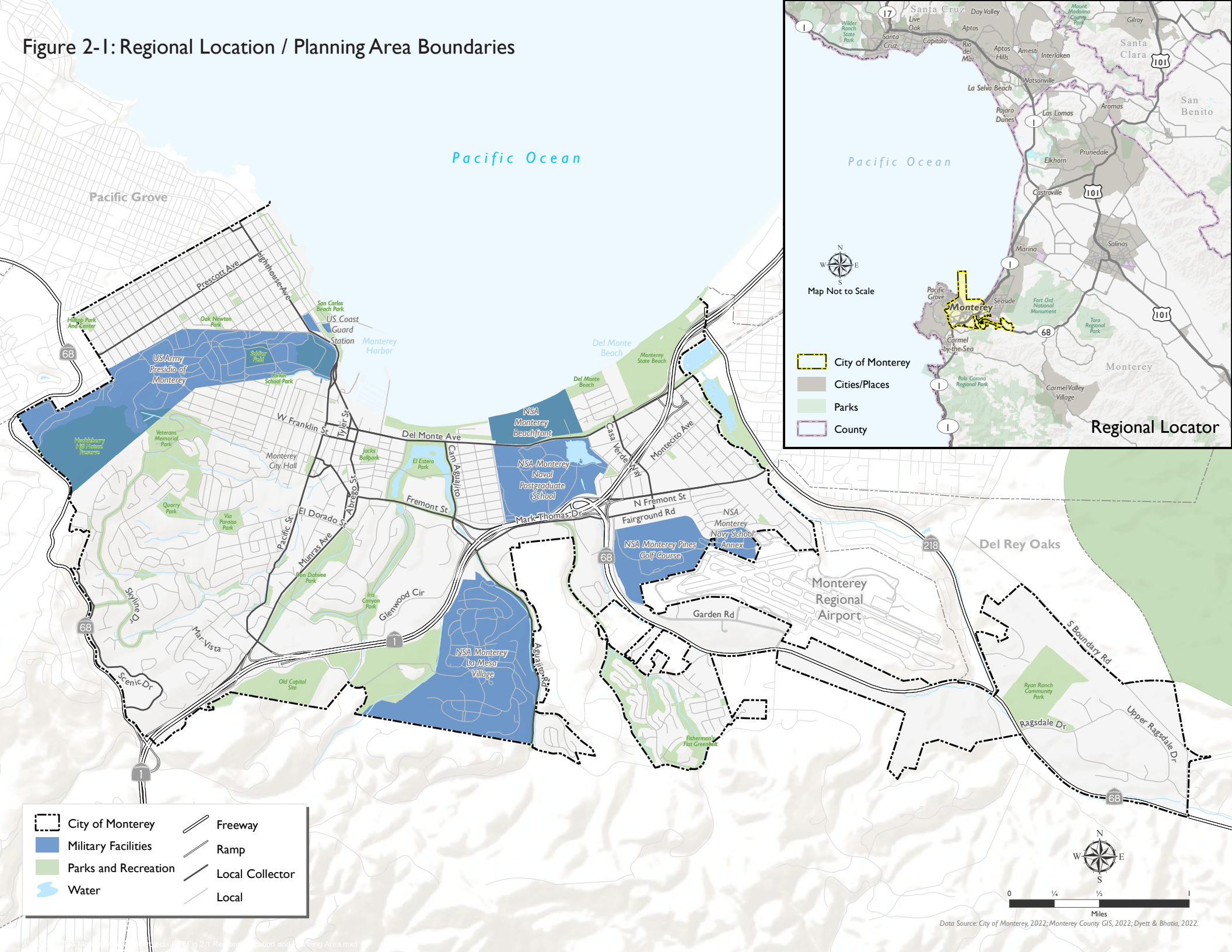
This chapter introduces a description of the existing regional and local project setting, the purpose and objectives of the Proposed Plan, the proposed General Plan land use diagram, key data tables, a description of the Proposed Plan's policy direction, and an outline of the projected population and employment growth rates and development patterns through the planning horizon year. This project description provides the basis for the environmental analysis in Chapter 3 and Alternatives analysis in Chapter 4.

2.2 Location and Project Boundaries

The City of Monterey is located in northern Monterey County, about 19 miles west of Salinas, 29 miles north of Big Sur, and 120 miles south of San Francisco, as shown in Figure 2-1. The City of Monterey is a coastal community of about 28,000 residents with a rich historic background and a distinctive

[1] As described in Section 15168 of the CEQA Guidelines, program-level environmental review documents are appropriate when a project consists of a series of actions related to the issuance of rules, regulations, and other planning criteria. The project that is the subject of this EIR consists of long-term plans that will be implemented as policy documents guiding future development activities and City actions. Because this is a program-level EIR, this document does not evaluate the impacts of specific, individual developments that may be allowed under the General Plan. Future specific projects may require separate environmental review.

Figure 2-1: Regional Location / Planning Area Boundaries



small-town feel. The city occupies 8.67 square miles of land between the southern shore of Monterey Bay and the forested ridgeline of the foothills, bordered by the City of Pacific Grove to the northwest and the City of Seaside to the northeast. Regional access is provided by California State Route 1 (Highway 1), a north-south highway that runs through the center of Monterey, as well as California State Route 68 (Highway 68), an east-west highway that serves as a major route between Salinas and Monterey Peninsula. Monterey-Salinas Transit (MST) provides connections at the Monterey Transit Plaza to the Salinas Transit Center and other neighboring communities, including Pacific Grove, Carmel Valley, Seaside, and Marina. Adjacent to the City to the east is the Monterey Regional Airport, a commercial service airport offering direct service to several destinations and connecting service to numerous cities worldwide.

PLANNING AREA

The Planning Area is defined as the land area addressed by the General Plan, including land within the City limits and outside City limits that bears a relation to the City's planning. The boundary of the Planning Area was determined in response to State law requiring each city to include in its General Plan all territory within the boundaries of the incorporated area as well as "any land outside its boundaries which in the planning agency's judgment bears relation to its planning" (California Government Code Section 65300). The Proposed Planning Area, shown in Figure 2-1, comprises a total of 5,522 acres (8.67 square miles) of incorporated land and 3.5 square miles of water within the Monterey Bay. The existing City limits include residential, commercial, and industrial developments as well as public facilities, including parks, schools, and military facilities.

2.3 Background

SETTING AND EXISTING LAND USES

Monterey is known for its stunning natural scenery and world-renowned attractions like the Monterey Bay Aquarium, Cannery Row, and Fisherman's Wharf, tourism is a pillar of the local economy. Monterey is also home to four educational institutions—U.S. Naval Postgraduate School, Monterey Peninsula College, Middlebury Institute of International Studies, and the U.S. Army Defense Language Institute Foreign Language Center-- the region's largest hospital (Community Hospital of the Monterey Peninsula), and Monterey Peninsula's largest shopping center (Del Monte Center). Monterey's enviable quality of life continues to make the community an attractive place to live.

The City of Monterey is the third most populous jurisdiction in Monterey County, behind Salinas and Seaside. The city is largely developed with single-family homes, multi-family apartments, military and educational facilities, commercial corridors, and parks, with little vacant parcels throughout. The single largest land use category in Monterey is public/institutional at 1,359.9 acres (24.4 percent), which encompasses all publicly owned and private facilities operated to serve the general public. Included in this category are public schools, military facilities, airport, and cemetery. Single-family residential accounts for 1051.4 acres (18.9 percent) of land use in City, while multi-family residential covers about 319.6 acres (5.7 percent). Parks, and open space uses occupy 912.3 acres (16.4 percent), commercial uses occupy 250.6 acres (4.5 percent), and industrial uses occupy 76.8 acres (1.4 percent).

There are approximately 5,568 acres in the current City limits in the Planning Area. Table 2-1 shows the breakdown of existing land uses in the Planning Area. Figure 2-2 shows the overall pattern of existing land uses in the Planning Area.

Table 2-1: Existing Land Use Summary

Land Use	*Acres*	*Percent*
Single-family Residential	1051.4	18.9%
Multi-family Residential	319.6	5.7%
Commercial	250.6	4.5%
Industrial	76.8	1.4%
Office	246.9	4.4%
Public/Institutional	1359.9	24.4%
Parks and Open Space	912.3	16.4%
Utilities	23.9	0.4%
Transportation & Misc.	937.5	16.8%
Vacant	389.8	7.0%
Total	**5568.7**	**100.0%**

Source: Dyett & Bhatia, 2023.

CURRENT MONTEREY GENERAL PLAN

Adopted in January 2005 and last amended in June 2020, the current General Plan established goals, objectives, policies, and actions to guide development and preservation in the city. Acting as a "constitution" for the physical development of the city, the General Plan serves as the basis of decisions concerning the development of property. It includes twelve elements that correspond to the seven topics required by California State law in force at the time it was prepared, including Urban Design, Land Use, Circulation, Housing, Conservation, Open Space, Safety, Noise, Economic, Social, Historic Preservation, and Public Facilities elements. Each element incorporates the topic and relates its goals to the physical development of the community. The Proposed Plan involves updates to the Housing, Land Use, Safety, and Circulation Elements of the General Plan to address emerging issues and new State laws.

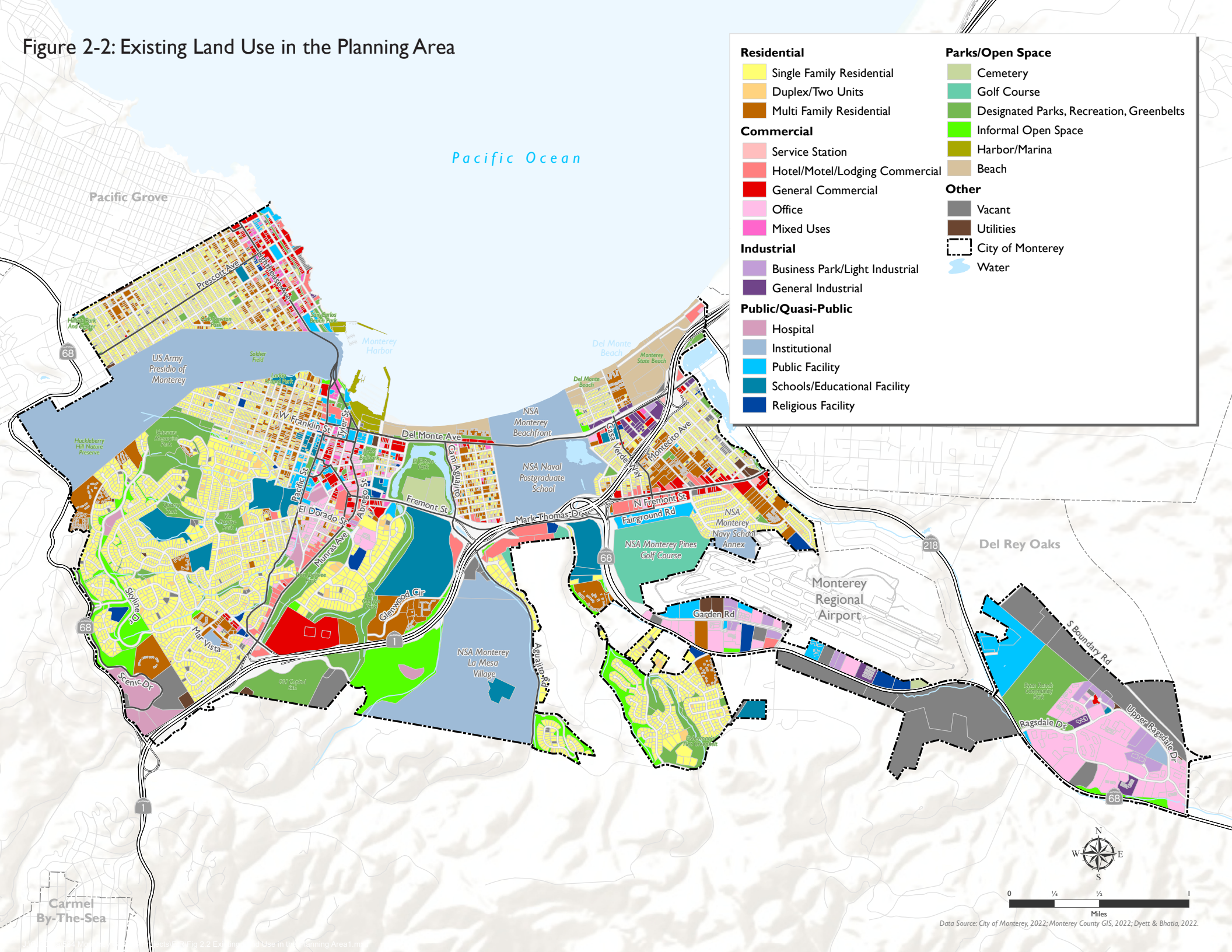
PRIOR PLANNING INITIATIVES

Subsequent to adoption of the 2005 General Plan, the City completed several major planning initiatives, including the Downtown Specific Plan, the North Fremont Specific Plan, and the Lighthouse Specific Plan. The City also adopted a Multi-Family Residential Zoning Overlay to facilitate housing along Garden Road. Each initiative is summarized below.

Downtown Specific Plan

Adopted in October 2013 and amended further in July 2023, the Downtown Specific Plan establishes a land use plan, policies, and guidelines for the development of 106 acres between Downtown and East Downtown in the City of Monterey. The purpose of the Downtown Specific Plan is to develop a clean, enticing, and safe environment that provides gathering spaces and draws visitors into the area and offers a variety of services, events, and retail establishments. It establishes nine districts and identifies several opportunity sites for commercial and residential development. The Pearl District has the potential to build housing at a higher density, while Pierce has several small lots that could

Figure 2-2: Existing Land Use in the Planning Area



also be developed for residential use. Proposed infrastructure projects include improvements to the Alvarado Mall, Simoneau Plaza, Custom House Plaza, and the addition of sidewalk seating. Downtown buildout projections include 912 residential units, with the caveat that limited water sources will restrict the scenario to 260 units, and a total of 50,000 square feet of commercial use. The Plan provides for potential conversion of six segments of one-way street into two-way traffic and relocating the MST Transit station from Simoneau Plaza to the Washington Street area.

North Fremont Specific Plan

Adopted in April of 2014 and amended further in August 2016, the North Fremont Specific Plan Area consists of approximately 47.7 acres on both sides of the 0.87-mile North Fremont Street from the eastern City limits west to Highway 1. The area is designated by the City's General Plan as one of three "Mixed-Use Neighborhoods." The purpose of the Plan aims to direct future population growth into mixed use areas by emphasizing attractive design concepts and development guidelines that will provide unique character, improved pedestrian experience, commercial opportunities, connections to the neighborhood, and bus transportation. Buildout projections list 130 new dwelling units on North Fremont Street and 50,000 square feet of new commercial development. The Plan encourages residential development as part of mixed-use projects and specifies alternatives for streetscapes, parking, and circulation as the area carries significant traffic from Highway 1.

Lighthouse Specific Plan

Adopted in September of 2016 and amended in June 2023, the Lighthouse Specific Plan guides the future development of the mixed-use area along Lighthouse Avenue and Foam Street, containing residences, retail shops, and services. The Planning Area includes the Lighthouse Avenue and Foam Street corridors, bordered by the Pacific Grove city limits at David Avenue to the Lighthouse Tunnel and connecting side streets adjacent to the Lower Presidio area. The main objective of the Lighthouse Specific Plan is to guide development of a transit-oriented mixed-use community and revitalized destination point. Buildout projections include accommodating up to 113 dwelling units (as part of the 260 units projected by the 2005 General Plan) and a 35,000-square-foot net increase in total commercial land use. The Plan includes design objectives, guidelines, and standards for land use and development provides guidance for improved bicycle boulevards, streetscapes, sewer collection, storm drainage, low impact design, and utility undergrounding.

Multifamily Residential Overlay

Adopted in 2019 and amended further in 2021, the Multifamily Residential Overlay District is intended to facilitate the provision of multifamily residential uses to address the housing shortage in the City of Monterey and to promote infill development of workforce housing, which may encourage affordable housing near jobs. The overlay applies to properties on the south side of Garden Road designated for Industrial use in the General Plan and provides owners with the option of developing multifamily housing on their sites if they choose. The overlay district sets forth development standards and regulations for multifamily uses within the overlay, including standards for private and shared open space, parking, and lighting as well as for the preservation of trees. Since adoption, four projects with a total of 180 units have been approved in the overlay.

2.4 Purpose and Objectives of the Proposed Plan

The Proposed Plan is a targeted update to the Housing, Land Use, Safety, and Circulation Elements of the City of Monterey General Plan intended to respond to emerging issues and new State laws and guide

development and conservation within the Planning Area. As required under the CEQA Guidelines, this section provides a description of the Proposed Plan's purpose and objectives (California Code of Regulations [CCR] 15124).

PURPOSE

Under State law, all California cities, towns, and counties are required to adopt a General Plan Housing Element which establishes housing objectives, policies, and programs in response to community housing conditions and needs. The City's Sixth Cycle Housing Element has been prepared to respond to current and near-term future housing needs in the City of Monterey and it provides a framework for the community's longer-term approach to addressing its housing needs.

The Housing Element contains goals, updated information, and strategic directions (policies and implementing actions) that the City is committed to undertaking. A key component of the Housing Element is the inventory of sites available for housing, presented in a table showing the location, size and zoning applicable to each site together with a projection of the number of housing units that could realistically be accommodated on the parcel in view of past trends and local conditions. By law, the Housing Element also includes an assessment of local housing needs, potential constraints to housing production, and fair housing issues. In view of that assessment, the Housing Element includes a program of actions to address identified needs, constraints, and fair housing issues.

As a built-out community, nestled between the California coast and the southern Santa Lucia Mountains, integrating new housing into the fabric of the Monterey community requires a thoughtful approach to land use and community character. Ensuring consistency of the Land Use Element with the newly adopted Monterey Regional Airport Land Use Compatibility Plan is also required. In addition, State law triggers requirements to incorporate new data on natural hazards and climate change into the Safety Element along with actions to strengthen community resilience and emergency evacuation capacity. Updated policies and actions regarding emergency evacuation can be found in the Circulation Element.

OBJECTIVES

The following are some of the specific objectives of the targeted General Plan update:

1. **Address Regional Housing Needs Allocation (RHNA).** Ensure capacity for the development of new housing to meet the RHNA of 3,654 housing units at all income levels for the 2023-2031 planning period.
2. **Provide a Variety of Housing Opportunities.** Provide a variety of housing opportunities proportionally by income to accommodate the needs of people who currently live, work, and go to school in Monterey, such as elderly residents, large families, students, teachers, and service and hospitality workers.
3. **Provide Equal Housing Opportunities.** Provide for fair and equal housing opportunities for all persons, regardless of protected characteristics, including but not limited to, age, ancestry, sex, gender, gender expression, sexual orientation, religion, disability, family status, race, creed, color, or national origin.
4. **Address Affordable Housing Needs.** Continue existing and develop new programs and policies to meet the projected affordable housing need of extremely low, very low, low, and moderate-income households.

5. **Address the Housing Needs of Special Need Groups.** Continue existing and develop new programs and policies to meet the projected housing needs of persons living with disabilities, unhoused people, elderly residents, students, and other special needs households in the community.
6. **Remove Potential Constraints to Housing.** Evaluate potential constraints to housing development and encourage new housing in locations supported by existing or planned infrastructure, while maintaining existing neighborhood character. Develop programs to help remove or reduce barriers to the development of housing for all income levels.
7. **Maintain Existing Housing.** Maintain the existing housing stock to assure high quality maintenance, safety, and habitability of existing housing resources.
8. **Provide Adequate Housing Sites.** Identify appropriate housing sites within specified areas that have the potential to accommodate or are proximate to transportation, shopping and schools, and the accompanying zoning required to accommodate housing development.
9. **Support a Vibrant Local Economy.** Support the vitality of local businesses, the health of the local economy, and the quality of life in the community with an improved balance of jobs and housing to help ensure that those who work in Monterey can afford to live in the community and to reduce traffic congestion, air pollution, and greenhouse gas (GHG) emissions associated with commute traffic to and from the city.
10. **Promote Sustainability and Energy Efficiency.** Continue to promote sustainability and energy efficiency in residential development to lower energy use through energy-efficient urban design and through better design and construction in individual projects.
11. **Address Risks from Natural Hazards.** Incorporate strategies to minimize loss and damage due to geologic, wildfire, flooding, and other potential hazards,
12. **Consistency with Airport Land Use Compatibility Plan.** Address airport-related hazards, compatibility zones, and airport noise contours and ensure consistency with Airport Land Use Compatibility Plan intended to protect and promote the safety and welfare of residents, business, and airport users.

2.5 General Plan Update Process

Initiated in August 2022, the Monterey 2031 General Plan Update process involves four key phases. The first phase of the General Plan Update process focused on identifying key issues and opportunities to be addressed. The consultant team summarized existing conditions in a series of background reports that documented natural and human made hazards; analyzed regulatory, process, and market-based constraints on housing development; identified potential housing opportunity sites; and assessed fair housing conditions in Monterey. This phase also involved a series of community listening sessions to learn about opportunities and constraints from the perspective of a wide variety of community members and stakeholder groups early in the process. The results of Phase 1 activities were presented to the Planning Commission and City Council in February 2023.

Building on the findings of Phase 1, the second phase of the General Plan Update process focused on evaluating different strategies for accommodating the City's assessed RHNA share and addressing natural hazards and climate vulnerabilities. This phase included a community-wide survey and pop-up outreach, which generated input from nearly 1,050 Monterey residents in March and April 2023 and informed a preliminary inventory of housing opportunity sites and key strategies to guide the Proposed Plan. The third phase of the General Plan Update involved preparation of the Draft General Plan Update and EIR and

provides for public review. This phase began with the release of the Public Review Draft Housing Element on August 2, 2023 for a 30-day review period, during which a community open house was held to provide an opportunity for public input on the Draft Housing Element and key strategies for the Land Use and Safety Elements. The open house also served as the scoping meeting for the Draft EIR, and community members were invited to comment on the potential environmental impacts of the General Plan Update as well as solutions to address them. Following the close of the 30-day review period, a joint meeting was held before the Planning Commission and City Council to review public input and receive direction to submit the Draft Housing Element to the State for review.

State law provides for a 90-day review of the Draft Housing Element by the California Department of Housing and Community Development (HCD). The Draft Housing Element was submitted to HCD on September 26, 2023 and during the 90-day review period preparation of the Draft Land Use and Safety Elements was completed in parallel with preparation of the Public Review Draft EIR. All three documents were released together on February 9, 2024, and were available for public review and comment between February 9, 2024 and March 25, 2024. The fourth and final phase of the process involves formal hearings for adoption of General Plan Update and certification of the EIR.

2.6 Proposed Plan Content

The Proposed Plan is a targeted update to the Housing, Land Use, Safety, and Circulation Elements of the City of Monterey General Plan intended to guide development and conservation and to comply with new State laws that have come into force since the plan was last updated, including requirements for addressing geologic hazards, flooding, and wildland and urban fires. Additionally, the Proposed Plan will include policies and implementing actions designed to support residential development in the Lighthouse, Downtown, and North Fremont Specific Plan areas, locations within the City limits that have previously been the focus of comprehensive long-range planning efforts.

HOUSING ELEMENT UPDATE

Under State law, each city and county in California must plan to accommodate its share of the regional housing need—called the Regional Housing Needs Allocation (RHNA)—for the coming 8-year planning period, which runs from December 15, 2023, through December 15, 2031. The State determines the estimated need for new housing in each region of California, based on population projections and other factors including rates of vacancy, overcrowding, and cost-burden. The various regional planning agencies then allocate a target to each city or town within their jurisdiction, considering factors such as access to jobs, good schools, and healthy environmental conditions. RHNA is split into four categories representing different levels of affordability, based on area median income (AMI) in the county. The affordability categories are as follows:

- Very Low Income - Households making less than 50 percent of AMI
- Low Income - Households making 50–80 percent of AMI
- Moderate Income - Households making 80–120 percent of AMI
- Above Moderate Income - Households making more than 120 percent of AMI

Amid the ongoing housing crisis in California, Monterey is required to plan for at least 3,654 new housing units between 2023 and 2031, including 1,177 Very Low-Income units, 769 Low Income units, 462 Moderate Income units, and 1,246 Above Moderate units. As required by State law, the Draft Housing Element will include an inventory of sites available for housing and a projection of the realistic capacity of the inventory for housing. The Draft Housing Element will also include a Housing Action Plan, organized

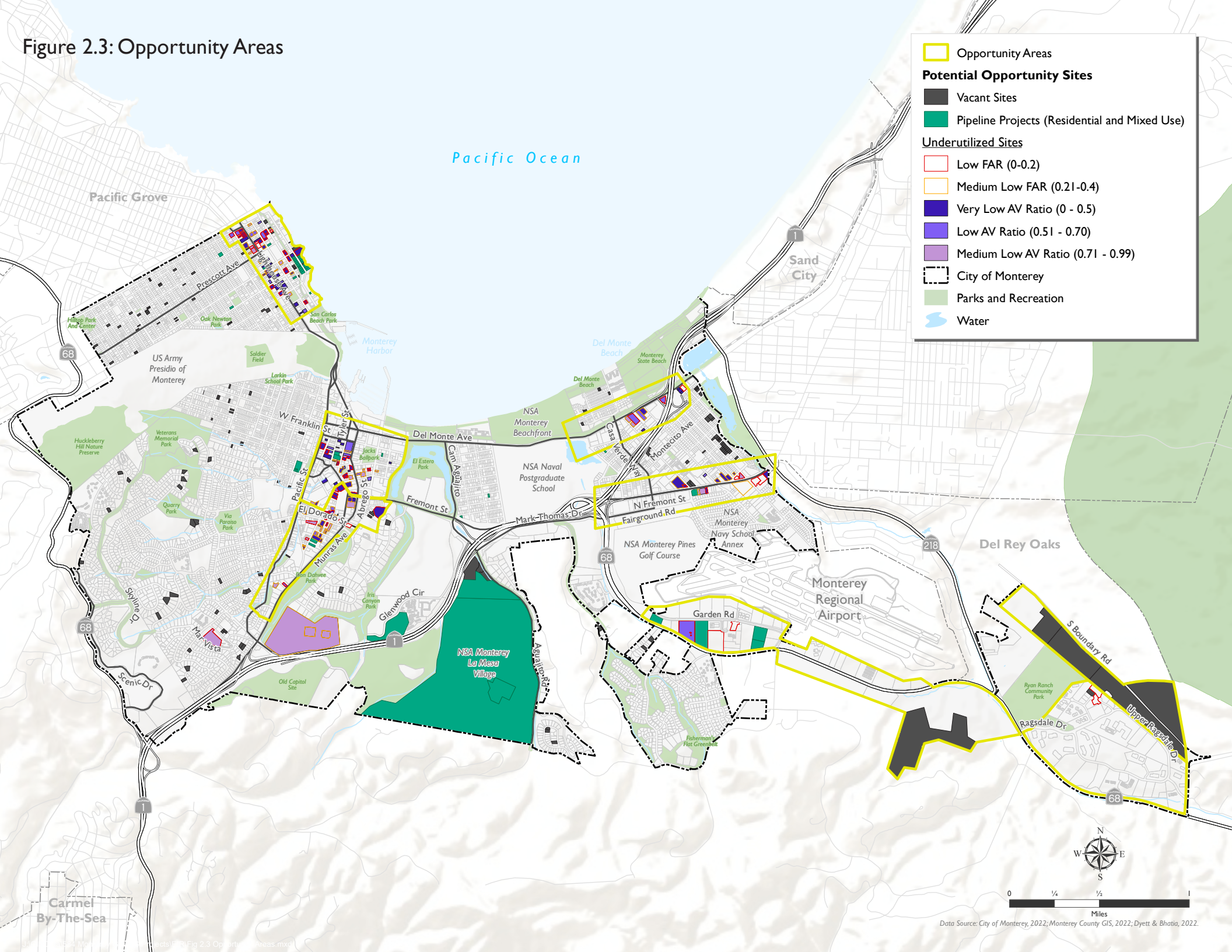
around community-wide housing goals. Each goal will be supported by policies and implementing programs that describe actions the City will take to help meet its RHNA obligations.

On August 2, 2023, the Draft Housing Element was released for public review. Together with development proposals currently in the pipeline and expected to be approved and constructed within the planning period, the inventory has a total projected capacity for up to 5,787 new homes, which is sufficient to meet the City's assessed share of the regional housing need at all income levels with a buffer. The inventory assumes a combination of strategies to ensure the City meets its RHNA obligations, including:

- Infill development on vacant and underutilized properties downtown and along commercial corridors, including North Fremont Street, Garden Road, Lighthouse Avenue, Del Monte Avenue, Munras Avenue, and Abrego Street;
- Preparation of a specific plan to guide future residential and mixed-use development in the Fort Ord/Ryan Ranch area, identify infrastructure needs and financing mechanisms, and establish measures to ensure sustainable development and adequate resource protection;
- Facilitating construction of accessory dwelling units (ADUs) and junior ADUs that provide affordable housing options on existing residential properties throughout the community; and
- Development or redevelopment of several larger sites to increase the range of housing options available in Monterey.

To accommodate the City's RHNA, the Proposed Plan would focus future development and redevelopment primarily into seven key opportunity areas withing the city as shown on Figure 2-3 and described below. These opportunity areas are locations with the greatest potential to accommodate new housing or other types of development based on community input collected in a communitywide survey. Outside of these areas, the existing land use pattern would generally be preserved. Some infill development is anticipated on vacant sites in residential neighborhoods, together with the construction of up to 120 accessory dwelling units (ADUs) citywide. Additionally, implementation of the Proposed Plan would involve the adoption of three new zoning overlays: an educational workforce housing overlay that would permit multifamily housing to be added on Monterey Peninsula United School District (MPUSD) properties in residential neighborhoods; a congregational overlay that would permit the development of affordable housing on properties owned by religious institutions; and an employer sponsored housing overlay that would facilitate development of employee housing on properties owned by major employers in the city, subject to objective standards. Change envisioned reflects existing site constraints, such as existing long-term leases, existing development agreements, and pending development applications, as well as physical and jurisdictional constraints and market conditions.

Figure 2.3: Opportunity Areas



Opportunity Areas

Downtown

Downtown Monterey is the city's premier business and tourism district, featuring shopping, restaurants, office, hotels, banks, and some higher density housing. There are few vacant parcels, but there is strong potential for redevelopment of older, underutilized commercial properties that currently feature 1-story buildings and large alleys or surface parking lots. Parcel size tends to be small, less than 10,000 square feet on average, and the ownership pattern is somewhat fragmented, which poses challenges for development. The best development opportunities can be found in the Alvarado District, where there are several adjacent clusters of underutilized commercial properties along Calle Principal and Tyler Street that offer opportunities for redevelopment. The area south of Franklin Street between Alvarado Street and El Estero Park (known as the Pearl District) is projected to be impacted by sea level rise in 2050 and parts of this area are already subject to flooding during storms. Accordingly, no sites in areas of the Pearl District subject to 100-year flood risk have been included on the inventory.

To facilitate housing development downtown, the following strategies have been incorporated into the Proposed Plan:

- Housing Element Program 1-C: Revise City land use and zoning regulations to permit building heights up to 55 feet (5 stories) in the Alvarado District in order to enhance development feasibility. (No change to permitted density or building heights in other parts of downtown).
- Housing Element Program 1-C: Revise City policy and regulations to incorporate a clear statement that 100 percent residential projects are permitted throughout the downtown area, except on/adjacent to Alvarado Street per City Council resolution 21-129 C.S.
- Housing Element Program 1-C: Offer municipal shared parking agreements to projects that propose at least 30 new housing units within 1,000 feet of a City-owned parking lot or structure to assist with development feasibility and encourage lot consolidation.
- Housing Element Program 1-G: Partner with a non-profit developer for the construction of workforce housing on two City-owned downtown parking facilities (Lot 14 parking lot on Bonifacio Pl & Adams St and the Calle Principal Garage on Calle Principal near Bonifacio Pl) to meet the needs of lower income households in Monterey.

On this basis, the inventory assumes development of 478 new housing units downtown, including 219 that would be affordable to households making less than 80 percent of the area median income, and 259 units that would be affordable to households making above moderate income.

Lighthouse

The Lighthouse area encompasses Lighthouse Avenue, Foam Street, Wave Street and Cannery Row, roughly from Reeside Avenue to the City limit. Currently, the area features a mix of neighborhood and visitor-oriented businesses interspersed with housing, including 2- and 3-story apartment buildings, duplexes, and single-family homes. Portions along the coast near Cannery Row are susceptible to flooding from sea level rise, but overall risk of environmental hazard is lower here than in other areas of Monterey. The Proposed Plan identifies opportunities for redevelopment, particularly along Lighthouse Avenue and Foam Street where underutilized commercial properties with low slung buildings and larger surface parking lots are located. Clusters of underutilized parcels under common ownership on Lighthouse and Wave also represent opportunities for redevelopment. To incentivize development in the Lighthouse area, implementation of the Proposed Plan would involve updating the Lighthouse Avenue Specific Plan to permit 100 percent residential projects fronting Lighthouse Avenue, as well as to offer municipal shared

parking agreements to projects that propose a minimum number of housing units in proximity to a City-owned parking lot or structure. With these changes, the sites inventory assumes development of 296 new housing units in the Lighthouse area, including 31 units that would be affordable to households making less than 80 percent of the area median income, and 265 units that would be affordable to households making above moderate income.

Pacific/Munras/Cass

This area features an eclectic mix of hotels, small-scale offices and apartments, and single-family homes. In particular, some underutilized commercial and office properties along Pacific, Cass, Abrego, and Munras offer opportunities for housing within easy walking distance of downtown. The area has relatively low risk of environmental hazards. Current General Plan land use and zoning for the area is Commercial, which allows for development at up to 30 du/ac along Munras Avenue and the Pacific/El Dorado/Cass Street area. Parcel size varies, with larger parcels ranging from 0.25 acres to 0.9 acres on Munras Avenue and smaller, odd-shaped parcels on Cass, El Dorado and Davis Lane. Notably, there are several clusters of small, adjacent underutilized parcels under common ownership that may be redeveloped together. To facilitate development, implementation of the Proposed Plan calls for adoption of a permit streamlining pilot project that would allow housing projects by-right in portions of Pacific/Munras/Cass areas with concentrations of housing opportunity sites. Therefore, the sites inventory assumes development of 130 new housing units in the Pacific/Munras/Cass area, including 38 units that would be affordable to households making less than 80 percent of the area median income, and 92 units that would be affordable to households making above moderate income.

North Fremont

The North Fremont corridor extends from Highway 68 north of the Monterey County Fairgrounds to the eastern City limit near Highway 218. To the north and south are single-family residential neighborhoods. The airport approach zone extends over the western part of the corridor and higher density housing is prohibited here, which constrains the potential to add housing over the area. The approach zone ends just west of Airport Road, and along the eastern part of the corridor there are several vacant and underutilized properties. The Proposed Plan identifies existing development, such as motels, restaurants, and strip retail center with large surface parking lots as opportunities for redevelopment. The Proposed Plan envisions a walkable, mixed-use corridor that provides attainable housing options [apartments (low rise and mid-rise) and townhomes] together with retail, restaurants, and daily services in the eastern portion of the North Fremont corridor. To incentivize development in the North Fremont area, implementation of the Proposed Plan would update the North Fremont Specific Plan to increase permitted density to 45 dwelling units per acre (du/ac) fronting Fremont Street with no change in building heights and to incorporate additional incentives for consolidation of adjacent, small lots under disparate ownership. Correspondingly, the sites inventory assumes development of 373 new housing units in the North Fremont area, including 263 units that would be affordable to households making less than 80 percent of the area median income, and 110 units that would be affordable to households making above moderate income.

Del Monte Avenue

This commercial corridor runs east of Del Monte Lake to Highway 1, featuring storage and auto-oriented businesses with some large surface parking lots and undeveloped land that the Proposed Plan envisions the best opportunities for redevelopment. There is existing single and multifamily housing north of the corridor. Coastal bluffs shield the corridor from the ocean and the risk of environmental hazard in the area is relatively low. The Proposed Plan identifies a cluster of underutilized sites under common ownership offering some of the best opportunities for redevelopment. To incentivize development in the Del Monte

Avenue area, implementation of the Proposed Plan would reduce parking requirements for developments within a half-mile of public transit. With this, the sites inventory assumes development of 126 new housing units in the Del Monte Avenue area, including 126 units that would be affordable to households making less than 80 percent of the area median income.

Garden Road/Airport/Highway 68

The Garden Road/Airport/Highway 68 opportunity area is a 0.7-mile corridor that runs from the Monterey Pines Golf Club to Olmsted Road, between the Airport and Highway 68. The area features a mix of commercial and office development today, with notable uses that include the Monterey Herald, California State Parks Monterey District offices, Caltrans District office, Garden Place Professional Center, Shoreline Church, and the Comfort Inn. Existing development in the area consists of 1- and 2-story buildings with surface parking heavily screened from view with trees and landscaping. The Multifamily Residential Overlay District applies to the corridor, allowing the conversion of existing buildings to housing or the development of new housing at up to 30 du/ac. The Proposed Plan identifies underutilized commercial/office properties along the southern side of the corridor as opportunities for redevelopment for high-density housing, such as apartment and townhomes. To facilitate development in the Garden Road/Airport/Highway 68 area, implementation of the Proposed Plan would involve amending the Multi-Family Residential Overlay to increase the maximum permitted density from 30 to 50 du/ac. With this change, the sites inventory assumes development of 515 new housing units along Garden Road, all of which would be at densities deemed affordable to households making less than 80 percent of the area median income.

Additionally, there is a large, vacant parcel owned by the Monterey City School District (MPUSD) on vacant hillside land south of the airport within the City limit. Located east of Tarpey Flats and south of the airport, the 50-acre parcel is on relatively flat terrain and is identified as a potential site for moderate- and low-income housing in the Highway 68 Area Plan if MPUSD were to declare the property surplus. The Proposed Plan incorporates Housing Element Program 1-I, which would involve an update to the Highway 68 Area Plan to integrate mixed income housing, access and infrastructure improvements, and neighborhood services and amenities on the site. Accordingly, the inventory assumes 640 new housing units, including 64 homes affordable to lower income households over the planning period based on the City's inclusionary requirements, 64 homes affordable to moderate income households, and 512 homes affordable to above moderate income households.

Ryan Ranch/Fort Ord

Located immediately southeast of the airport, the Ryan Ranch Area is home to Montage Health, an office park, and some light industrial businesses. New housing is prohibited in the airport approach zone which extends through the central part of the area, but there is a cluster of underutilized commercial properties north of Upper Ragsdale Road which presents opportunities for redevelopment. Immediately adjacent to the north is the former Fort Ord Military Base, where approximately 127 acres of vacant land is potentially available for development with housing and other uses. The Fort Ord area is largely outside of the airport safety zones and risk of natural hazards are lower here than in other areas of Monterey, although the presence of unexploded ordnance on the northernmost parcel requires remediation before residential development can take place. Specifically, the northernmost parcel at Fort Ord (APN 031-191-018-000) is subject to deed restrictions regarding Munitions and Explosives of Concern (MEC), which require remediation of hazardous materials on this property and within Boundary Road, as well as reimbursement agreements with the federal and State agencies that will provide oversight. The timeline for putting the agreements in place, engaging contractors, and completing remediation activities is expected to be approximately 60 months. However, the other more southerly parcels at Fort Ord (excluding APN 031-

191-018-000), totaling over 105 acres, can feasibly be developed during the 2023–31 planning period. Further, with the closure of Ford Ord, an allotment of 65-acre-feet of water was set aside for the City (an amount sufficient for 240 new homes), potentially making Fort Ord one of the more feasible locations for housing development in the near term.

Integrating new housing into this area would need to be done carefully and in a way that responds to the variety of preferences and concerns that community members expressed through the survey. Therefore, a key implementing strategy for the area, articulated in Program 1-H of the Draft Housing Element, involves the preparation of a specific plan to establish a clear vision for the areas and to guide future development and conservation, identify infrastructure needs and financing mechanisms, and establish measures to ensure sustainable development and adequate resource protection. On this basis, the inventory assumes a total of 1,660 new housing units in the Ryan Ranch and Fort Ord area, 220 of which would be made available to low-income households, 220 of which would be made available to moderate-income households, consistent with the City's inclusionary ordinance. The balance (1,220 homes) would be affordable to above moderate-income households.

Other Sites

The inventory also assumes development of several sites outside of the opportunity areas, the development potential of which is described below.

County Courthouse Site

The County has decided to relocate the courthouse and this 4.4-acre site, located at 1200 Aguajito Road, east of Highway 1, is available for redevelopment with housing. Currently, the site is designated Low Density Residential (LDR) in the General Plan and zoned R-1; but if the site is declared surplus, it could accommodate higher density housing to help meet the needs of moderate, low and very low-income households. Assuming it is rezoned to R-3, the site could accommodate 130 new units affordable to low and very low income households.

Perry Lane Site

Located at 590 Perry Lane just a short walk from El Estero Park and downtown Monterey, this 1.82-acre site is available for housing. The site is currently for sale. It contains some small single-story structures and is partially located within an area of high liquefaction risk, construction techniques are available to mitigate this risk. The site is currently zoned Commercial, which allows for residential development at up to 30 du/ac. On this basis, the preliminary inventory assumes development of 50 new housing units affordable to above moderate income households.

Elks Lodge Site

Monterey Elks Lodge is located at 150 Mar Vista Drive. The 3.75-acre site contains approximately 22,000 square feet of existing buildings constructed in 1963 and has large areas of surface parking lot that could be redeveloped with housing. The site is surrounded by existing multifamily developments including the 3-story Palo Verde Apartments immediately adjacent to the west. The site itself is generally outside of mapped areas of environmental hazard, although the Very High Fire Hazard Severity Zone extends to the opposite site of Mar Vista Drive, uphill from the graded and developed portion of the site. The General Plan Land Use designation applicable to the site is Residential - Medium Density (MDR), which allows for 8 to 30 du/ac. Assuming the existing building and structures remain on the property and new housing is integrated

onsite, the Elks Lodge property could accommodate 94 new units at a density deemed affordable to low and very low-income households by the State.

Del Monte Shopping Center

Located on three parcels with a combined area of nearly 48 acres, the Del Monte Shopping Center consists of retail shops and restaurants in single story buildings organized around large areas of surface parking. Subject to property owner interest, a portion of the site could be developed with housing to further support the vitality of existing businesses and address local housing needs. The inventory assumes development of 150 market rate units on a portion of the property, 30 of which would be affordable to moderate and low income households consistent with the City's inclusionary requirements.

Vacant Residential Land

Vacant residential parcels within the City limit also represent opportunities for housing. In total, there are 111 parcels designated Low Density Residential (LDR) in the General Plan and zoned R-1, as well as 33 vacant parcels designated Medium Density Residential (MDR) in the General Plan and zoned either R-2 or R-3. These sites are available for development when new water sources become available and their capacity is reflected in the inventory.

Housing Action Plan

The Draft Housing Element includes an Action Plan, organized around six housing goals. Each goal is supported by policies and implementing programs that describe actions the City will take to help meet its RHNA obligations. A summary of Action Plan contents is provided below.

Goal 1, **Increase housing supply and facilitate production of at least 3,654 new homes by 2031**, is supported by 11 programs that seek to increase capacity for housing through amendments to specific plans and zoning applicable in the opportunity, as described above. Additionally, programs under this goal would involve the adoption of the three new zoning overlays described above (Educational Workforce Housing Overlay, Congregational Housing Overlay, and Employer-Sponsored Housing Overlay), as well as Housing Element Program 1-G, under which the City would seek to partner with a non-profit developer for the construction of workforce housing on two City-owned downtown parking facilities (Lot 14 parking lot on Bonifacio Pl & Adams St and the Calle Principal Garage on Calle Principal near Bonifacio Pl), and implementation of a permit streamlining pilot project to help fast-track infill housing development in core areas of the city identified for high density housing when adequate water supply becomes available.

Goal 2, **Remove or reduce barriers to housing production in Monterey and address the regulatory process and market factors that limit and adversely affect affordability,** is supported by programs that review and revise use permit and design review thresholds, increase flexibility in development standards, develop zoning standards to encourage smaller multi-unit housing types, reduce constraints to the development of Accessory Dwelling Units, and remove obstacles to the development of Single Room Occupancy housing and other affordable options. Programs also include revising Code to state that the Architectural Review Committee will review residential projects for compliance with objective development and construction requirements rather than subjective design guidelines; revising the Zoning Code to ensure its parking requirements conform to the requirements applicable to areas within a half-mile of public transit; and updating the City's density bonus ordinance to incorporate new requirements. Lastly, programs under Goal 2 seek to expand online transparency by continuously updating the online version of the City Code, plan to allocate water credits and additional supply that prioritizes affordable housing projects, and continue to work with other jurisdictions and agencies to augment the existing water supply.

Goal 3, **Provide for fair and equal housing opportunities for all persons, regardless of protected characteristics such as age, sex, family status, race, creed, color, or national origin**, is supported by programs that seek to further enforcement of fair housing laws and address discrimination in the building, financing, selling, or renting of housing based on protected characteristics and work collaboratively with local non-profit, public, and private sector partners to raise awareness and achieve implementation of fair housing practices. These programs are intended to promote a wider variety of housing types in High Resource areas of Monterey, expand housing choices for special needs groups throughout Monterey, and ensure that the City's regulations, policies, practices, and procedures provide equal access to housing for all persons. Programs include partnering with a fair housing counseling group to conduct workshops and seminars about landlord and tenant responsibilities and rights, providing administrative assistance upon request to developers seeking available State and federal funding and/or tax credits for the construction of low- and moderate-income housing, and enacting a local density bonus program that offers additional density over the maximum base permitted in the Monterey City Code as an incentive for projects that meet certain requirements.

Goal 4, **Take action to prevent homelessness and address the needs of unhoused people**, is supported by programs that prioritize funding for the acquisition, rehabilitation, and preservation of affordable housing stock in the community and funding to assist low-income homeowners, connect those most at risk of becoming unhoused to programs and services that will help prevent them from losing their homes, and increase access to a continuum of housing, including emergency shelters, transitional housing, and supportive housing. Programs include connecting unhoused people with relevant services, providing workstations at the Monterey Police Department for service providers to facilitate solutions for the unhoused, establishing a rental assistance program that provides lower income renter households with recurring rental assistance at a fixed rate, and eliminating use permit requirements for supportive and transitional housing.

Goal 5, **Continue to promote sustainability and energy efficiency in residential development to lower energy use through energy-efficient urban design and through better design and construction in individual projects**, is supported by programs that promote energy conservation programs and incentives, encourage the incorporation of energy conservation design features in existing and future residential developments, and encourage the use of building placement, design, and construction techniques that promote energy conservation. Programs include the promotion of energy efficient and sustainable design, as well as evaluation of the feasibility offering incentives for residential and mixed-use projects built to green buildings standards that exceed CalGreen standards.

Goal 6, **Monitor the effectiveness of housing programs to ensure that they respond to housing needs**, is supported by programs that involve annual review of the City's Available Land Inventory to ensure Monterey can accommodate its share of the RHNA throughout the planning period, annual monitoring of ADU and JADU permitting/construction trends, and requiring replacement of lower income units affordable to the same or lower income level as a condition of any development on a non-vacant site identified in the Housing Element.

LAND USE ELEMENT

The Proposed Plan also involves updates to the Land Use Element of the General Plan. The current Land Use Element incorporates policies and standards that seek to foster compact, walkable, mixed use neighborhoods and provide housing to meet the needs of the local workforce. The Proposed Plan maintains the basic framework and objectives of the existing Land Use Element, but incorporates targeted updates

needed to accommodate the City's RHNA allocation as identified in the proposed Housing Element. Specifically, this includes:

- Updating the Commercial land use designation to clarify that multifamily residential uses are permitted in a standalone or mixed use format at up to 30 dwelling units per acre and to establish an allowable non-residential floor area ratio of between 0.25 and 1.0 FAR.;

- Creating a new Mixed Use Neighborhood (MUN) land use classification applicable to the Downtown, Lighthouse Avenue, and North Fremont Avenue Specific Plan areas, as well as to the portion of the former Fort Ord site that is within the City limit. The MUN classification is intended to foster a mix of residential, retail, employment, entertainment, cultural, public, and personal service uses that encourages people to live, work, play, and shop in close proximity. Allowable non-residential floor area ratio is up to 2.0 FAR and maximum permitted residential density is 30 dwelling units per acre, with allowances for higher intensity development in certain areas and under certain conditions as defined in the zoning ordinance, specific plans, or area plans;

- Creating a new Multifamily Residential Overlay (MFR-O) intended to increase opportunities for housing to meet the needs of the local workforce and address a shortage of supply. Attached housing is permitted on sites within the MFR-O at densities of up to 50 dwelling units per acre;

- Renaming the Industrial land use classification Employment to better reflect the range and type of uses permitted, which includes administrative and professional offices, light manufacturing, and research and development at up to 0.8 FAR. Secondary and accessory uses such as restaurants, cafes, printers, and office supply stores to serve the needs of employees and businesses are encouraged;

- Renaming the Public/Semi-Public land use classification Public/Institutional to better reflect the type of facility permitted, which includes public schools, military facilities, the airport, cemetery, large public parking facilities, hospitals, museums, conference center, and some publicly-owned historic buildings;

- Amending the policy framework to reflect the vision for multifamily housing to serve the needs of the local workforce at the Old Capital site and on the 50-acre MPUSD property within the Highway 68 Area Plan boundaries; and further to reflect the vision for an integrated mixed use village in the Fort Ord/Ryan Ranch Area to provide housing, jobs, schools, shops, services and recreation for future residents while also preserving carefully selected areas of natural open space and habitat;

- Revising the projections of development potential citywide and in mixed use areas to match the projections contained in the proposed Housing Element; and

- Updating the map of mixed use areas to show Fort Ord/Ryan Ranch, consistent with the proposed Housing Element.

Additionally, the proposed Land Use Element incorporates a new Airport Compatibility Overlay with performance standards oriented to protecting airport operations and ensuring public safety. The purpose of the overlay is to resolve conflicts with respect to permitted development types and intensities on properties in the vicinity of the Monterey Regional Airport that have resulted from an update to the Airport

Land Use Compatibility Plan (ALUCP) prepared by the County in 2019. The overlay would be applied to the General Plan Land Use map as shown on Figure 2-4 and would:

- Permit continuance of existing uses and allow for new development or expansion of existing uses consistent with the ALUC infill exemption;
- Establish requirements for ALUC notification and project approval; and
- Incorporate new mitigation requirements for interior noise levels by land use type.

The Draft Land Use Element incorporates a new goal and six supporting policies intended to minimize airport safety hazards and promote compatibility with airport and military operations. Consistent with guidance from the California Governor's Office of Planning and Research, military installations in the planning area are identified and described.

SAFETY ELEMENT

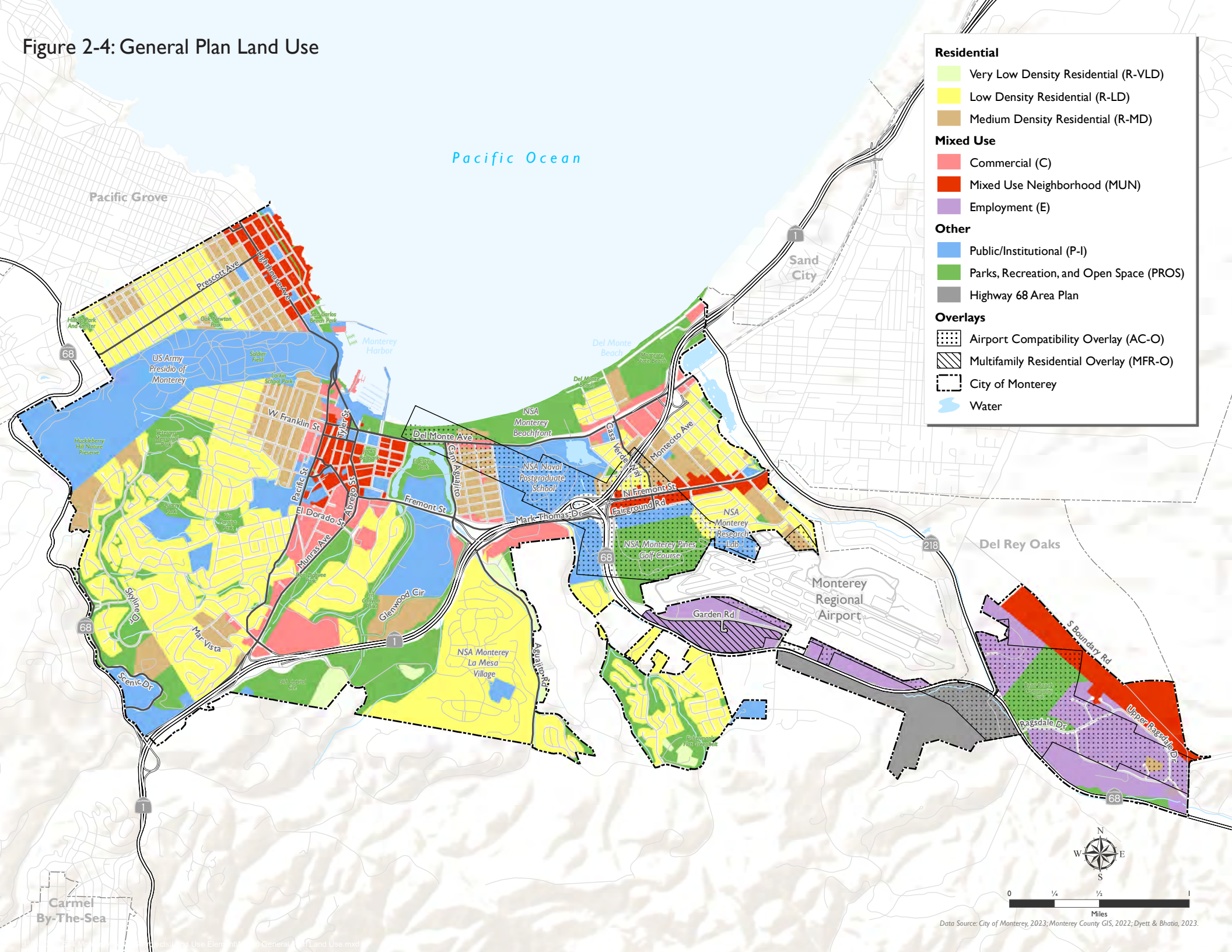
Originally adopted in 2005 and amended in 2009, the current Safety Element is organized around eight goals that address seismic, geologic, flood, wildfire, and airport hazards as well as crime, hazardous materials, and emergency preparedness. The Proposed Plan would involve a comprehensive update to the background data and hazard mapping in the Safety Element to reflect current and projected conditions in the Planning Area, along with amendments and additions to policies that strengthen resilience to natural and human made hazards and enhance emergency preparedness and response. Specifically, new and amended Safety Element policies proposed for inclusion would:

- Enhance communitywide emergency preparedness through the creation of neighborhood-level emergency response plans, the organization of annual disaster preparedness training for volunteers and community members, and public awareness activities;
- Strengthen emergency response with enhanced wayfinding and signage, refinements to roadway maintenance and design standards that facilitate efficient emergency evacuation, and coordination with other agencies in Monterey and the surrounding area to develop a coordinated emergency evacuation process; and
- Address wildfire risks by promoting proactive vegetation management practices on public and private property, requiring the preparation of Fire Protection Plans for new development in Very High Fire Hazard Severity Zones, including fuel breaks into the design of new subdivisions in and adjacent to wildland-urban interface areas, and incorporating actions to mitigate risk in areas with existing development that does not meet current state and/or locally adopted fire safety standards.

CIRCULATION ELEMENT

The Proposed Plan incorporates a comprehensive update to the Circulation Element, organized around 11 key goals that seek to promote an integrated multimodal transportation system that provides a range of safe, equitable, and efficient options for mobility and supports the reduction of transportation related greenhouse gas emissions through the reduction of vehicle miles traveled. Pursuant to the Complete Streets Act (2008), the Draft Circulation Element incorporates strategies for a balanced, multimodal transportation network that meets the needs of all users of streets. The Draft Circulation Element also establishes vehicle miles traveled (VMT) as the metric to measure transportation environmental impacts, includes strategies to prioritize safety over congestion management, and outlines a framework for effectively managing parking supply while encouraging reduced auto travel.

Figure 2-4: General Plan Land Use



2.7 Buildout Projections

Buildout refers to the estimated amount of new development and corresponding growth in population and employment that is likely to take place under the Proposed Plan through the horizon year of 2031 based on the proposed land use designations. Buildout estimates should not be considered a prediction for growth, as the actual amount of development that will occur through 2031 is based on many factors outside of the City's control, including changes in regional real estate and labor markets and the decisions of individual property owners. Therefore, buildout estimates represent one potential set of outcomes rather than definitive figures. Additionally, the designation of a site for a specific land use in the Proposed Plan does not guarantee that a site will be developed or redeveloped at the assumed density during the planning period, as future development will rely primarily on each property owner's initiative. Outside of the City limits, lands remain under the development control of Monterey County unless annexed.

For this EIR, buildout projections assume housing development and population growth consistent with the capacity projections in the Draft Housing Element and employment growth consistent with the increment in the Association of Monterey Bay Area Governments (AMBAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the planning period.

Methodology and Assumptions

In projecting the buildout for the 8-year planning horizon of the Proposed Plan, existing development, current development projects, and new development were considered. These were derived as follows.

Existing Development

To establish existing population, housing units, and jobs in the Planning Area, data from the United States Census Bureau and the California Department of Finance (DOF) was utilized. DOF 2023 was used to identify single-family residential units, multifamily residential units, and population. Employment data from the 2020 U.S. Census represents the best available estimate of jobs in Monterey, broken into detailed employment categories.

Pipeline Projects

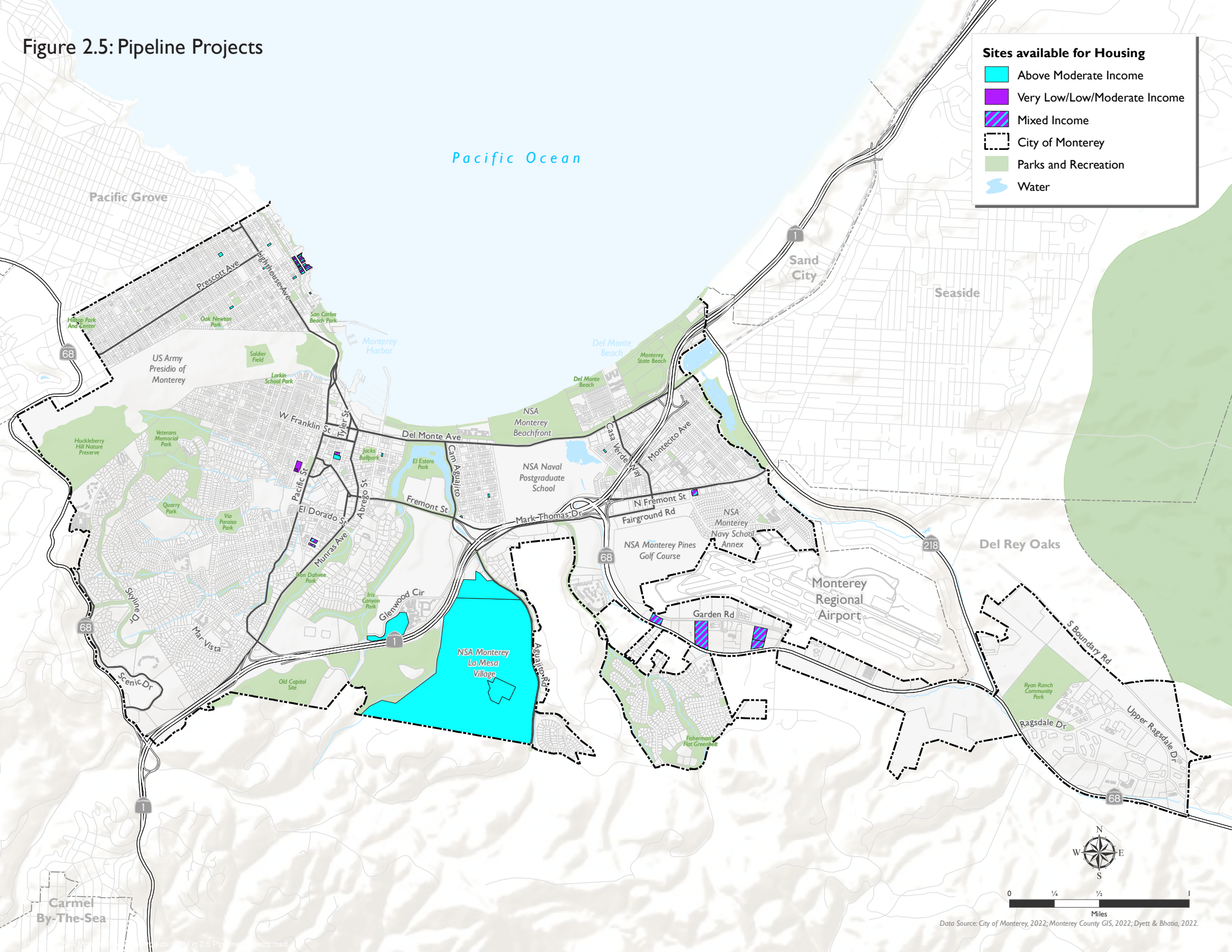
A list of pipeline projects, or current major development projects under review, recently approved, or under construction, was provided by City. There are 24 pipeline projects in Monterey, which, if all are approved and constructed, are expected to generate a total of 503 new housing units during the planning period, including 110 very low, low, and moderate income housing units and 393 above moderate income housing units as shown on Figure 2-5. Buildout assumes that all pipeline development will occur during the planning period.

New Development

Housing Capacity

To identify potential sites for new housing, a parcel-based analysis of properties within the City limits was conducted using County Assessor data. Vacant sites were identified, along with underutilized non-vacant sites with potential for redevelopment within the planning period and any surplus City-owned sites. Two primary metrics were used to identify underutilized parcels: assessed value ratio (A/V) and low as-built floor area ratio (FAR). A/V ratio considers the relationship between the value of the land and the

Figure 2.5: Pipeline Projects



improvements constructed on it. Where the value of the land is worth substantially more than the value of the structures on it, there is an incentive for the owner to redevelop with new uses that command higher rents or sales prices. Similarly, a low FAR means that the square footage of buildings is small compared to the overall size of the site, indicating the potential for redevelopment with other uses. A commercially zoned property containing a low-slung shopping center with large areas of surface parking could be considered underutilized, particularly if vacancy rates are high. Areas where vacant and underutilized sites cluster are locations where change is most foreseeable over the planning period and as such are an important focus of planning activities.

The opportunity sites were ranked by viability for development with housing in consideration of the prevailing land use characteristics and hazards and organized into five tiers. Tier 1 sites are those with indicators that signal the strongest redevelopment potential, and which are also least encumbered by natural and human made hazards. Tier 5 sites are those with some indication of redevelopment potential, but which are constrained by hazards. This tiering helped identify viable non-vacant sites to accommodate lower income RHNA, in view of State requirements for additional analysis to justify their inclusion on the Housing Element sites inventory. Based on this analysis, seven "opportunity areas" where change is foreseeable over the planning period were identified (see Figure 2-3) and a community survey was conducted to solicit feedback to help plan where new housing should be located and how to achieve other community objectives. Overall, the survey results indicated broad support for new housing in all the opportunity areas, and an inventory of sites available for housing was developed and refined with further input from community members and City decision-makers. Figure 2-6 shows the location of sites on the inventory.

Guidance from the State requires that the projections for the realistic capacity of eligible sites be made on the basis of past performance in the jurisdiction or the surrounding region. Accordingly, a survey of recently constructed projects in Monterey and surrounding communities was conducted to establish average as-built densities that can be applied to determine the realistic capacity of sites included in the inventory. Based on the results of the survey, the following densities have been used to project realistic capacity: 56 dwelling units per acre (du/ac) in the Alvarado District Downtown; 29–42 dwelling units per acre for non-vacant sites along commercial corridors; and 16–29 du/ac in the Pacific/Munras/Cass area, based on the average density of existing housing in the area. For vacant residential lots in low density neighborhoods, a typical rate of one unit per lot was assumed.

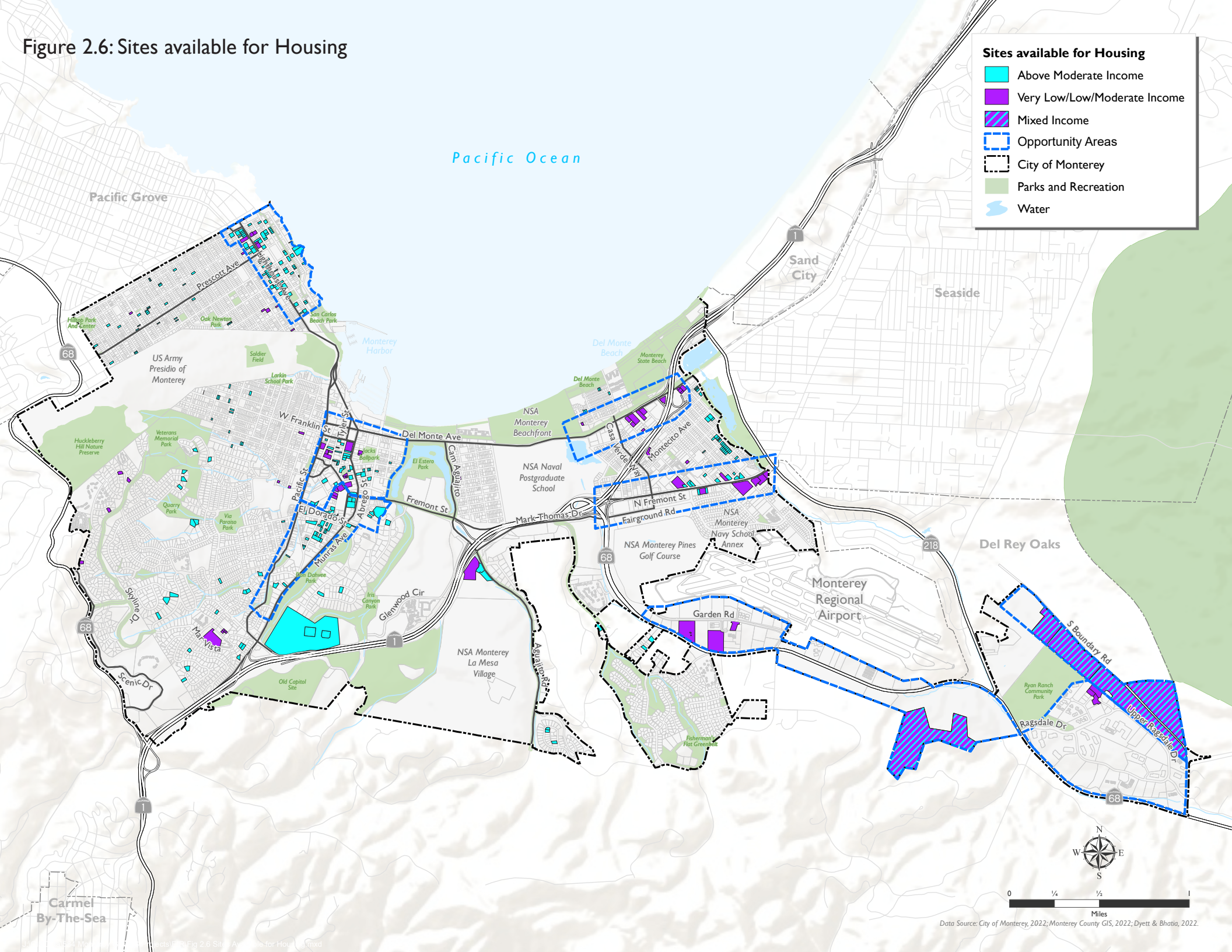
Buildout Population

To forecast future population in 2031 with buildout of the Proposed Plan, a projection of new residents was added to the existing 2023 baseline population from DOF estimates, assuming an average household size of 1.94 persons and a residential vacancy rate of 9.5 percent in the city per 2023 DOF estimates for the City of Monterey. DOF estimates represent the latest available data for the planning area.

Job Growth

To forecast 2031 employment under the Proposed Plan, the number of new jobs projected in the RTP/SCS was added to the 2021 employment baseline estimate from the U.S. Census, the latest available data on employment in the planning area. The RTP/SCS allocates job growth to various Transportation Analysis Zones (TAZs) within the city. While total citywide projected increase in employment from the RTP/SCS was maintained, the allocation between TAZs was adjusted to account for land use and zoning changes proposed to accommodate the City's RHNA share. Some areas of the city that were projected to be employment growth areas in the RTP/SCS, such as Garden Road and the Elk's Lodge site, are now envisioned as opportunity areas for housing growth. Therefore, job growth assumed in the RTP/SCS was

Figure 2.6: Sites available for Housing



reallocated from TAZs in these areas to TAZs in the Downtown, North Fremont, and Del Monte opportunity areas, consistent with the Proposed Plan Land Use Map and Housing Element Sites Inventory.

Citywide Buildout Projections

Table 2-2 shows the growth in population, housing, and employment projected to result from buildout of the Proposed Plan in 2031. Projected increases reflect pipeline projects, and new development projections. For the purpose of a conservative estimate of potential environmental impacts, this Draft EIR considers 10,125 new residents, 5,800 new housing units, and 1,995 new jobs at buildout in 2031.

Table 2-2: Projected Buildout (2031)

	Existing	*Net New*	*Future (2031)*
Population	26,845	10,104	36,949
Housing Units	13,825	5,787	19,612
Jobs	22,246	1,991	24,237
Jobs - Housing Ratio	1.60	--	1.24

Source: AMBAG, 2022; DOF, 2023, US Census, 2023.

2.8 Intended Uses of the EIR

This EIR examines the potential environmental impacts of implementing the Proposed Plan and identifies mitigation measures required to address significant impacts, as necessary. As no specific developments are proposed as part of the Proposed Plan, this EIR is a programmatic EIR and does not evaluate the potential environmental impacts of specific, individual development proposals that may be allowed under the Proposed Plan subsequent to its adoption. Subsequent projects will be reviewed by the City for consistency with the Proposed Plan and this EIR, and adequate project-level environmental review will be conducted as required under CEQA. Projects successive to this EIR include, but are not limited to, the following:

- Approval and funding of major public projects and capital improvements
- Issuance of permits and other approvals necessary for implementation of the proposed General Plan
- Property rezoning consistent with the proposed General Plan Update
- Development plan approvals, such as tentative maps, variances, conditional use permits, and other land use permits
- Permit issuances and other approvals necessary for public and private development projects
- Development agreement processes and approvals

TIERING

This EIR is a program-level EIR and, as such, once it is certified, subsequent projects consistent with the Monterey 2031 General Plan Update Project may tier from it to streamline environmental review. Pursuant to State law and the CEQA Guidelines,[2] to the extent that environmental impacts were analyzed in a

[2] (PRC Sections 21093, 21094; CEQA Guidelines Sections 15168, 15152)

program EIR at a sufficient level of detail to enable those effects to be mitigated or avoided by site-specific revisions, the imposition of conditions, or by other means in connection with the approval of the later project, subsequent development projects may rely on a program EIR. Subsequent projects will be reviewed by the City for consistency with the proposed General Plan and this EIR. Subsequent project-level environmental review will only be required to analyze and mitigate project- or site-specific impacts not considered in the program EIR from which a subsequent project is tiered.

REQUIRED PERMITS AND APPROVALS

Implementation of the Proposed Plan will require additional regulatory actions by the City of Monterey, including amendments to the Zoning Code to ensure consistency across documents. Additionally, the Proposed Plan will require a recommendation from the Planning Commission and adoption by the City Council. Future, subsequent development under the Proposed Plan may require approval of federal, State, and responsible or trustee agencies that may rely on this programmatic EIR for decisions in their areas of expertise.

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3.1 Aesthetics

This section evaluates the potential impacts to aesthetics that could arise from implementation of the Proposed Plan. The analysis includes possible impacts to scenic resources, visual character, and visual quality, as well as those arising from the possible introduction of new sources of light and glare.

One response to the Notice of Preparation (NOP) was related to topics addressed in this section. The comment emphasized the importance of preserving the natural beauty found in Monterey.

Environmental Setting

PHYSICAL SETTING

Most communities identify scenic resources as important visual assets that contribute to community identity. These resources can include landforms, trees, water features, and the built environment in so far as they enhance and define the visual character of a landscape. Scenic resources include natural and open spaces, as well as the built environment, particularly if certain architecture is of historic or artistic value.

Visual quality is defined as the overall visual impression or attractiveness of an area based on the scenic resources, both natural and built. The attributes of visual quality include variety, vividness, coherence, uniqueness, harmony, and pattern. Viewshed is a term used to describe a range of resources and their context that relate to what people can see in the immediate environment in terms of foreground, middle ground, and background distances.

Impacts to visual quality are perceived by different viewer types and to different degrees, depending on the viewer exposure. Different land uses, such as open space or commercial districts, derive value from the quality of their settings and, for the purposes of this study, include regionally designated scenic highways, city gateways, and surrounding land features. Viewers driving in the city might be exposed to the dramatic hills or the marshlands along the Bay as they travel. Their exposure would vary based on proximity and ability to see the viewshed. Scenic resources are of particular importance relative to the way viewer sensitivity may be impacted. This sensitivity is determined by two measures: exposure and awareness. Exposure is the relative proximity of potential viewers to a given project implemented under the Proposed Plan, and awareness indicates the attention and focus viewers bring to the experience of the area.

Existing Visual Conditions

Located in northern Monterey County, the City of Monterey is a small-scale community beside the Bay, framed by a forested hill backdrop and drawing its character from a rich historical background, certain commercial enterprises, and natural scenic beauty. Though the Planning Area is urbanized, the scenic and aesthetic environment of Monterey and the Peninsula stems from its two dominant features: the coastline and the central ridge of wooded hills.

Natural Features

The Planning Area is bounded by two dominant features: on the south by pine-covered ridgeline and to the north by the crescent-shaped southerly end of Monterey Bay. The series of wooded canyons, which radiate from the ridge to the Bay, are separated by a series of mesas. Each mesa is isolated from the others, allowing the natural separation of various types of land uses. The Monterey Peninsula Airport is located on the most easterly mesa. On the next mesa to the west are the Josselyn Canyon and Fisherman's Flats, Deer Flats Park, and Aguajito Oaks residential subdivisions. Next is the Del Monte Golf Course. Isolated by canyon and wooded areas to the west is the higher density navy housing development called La Mesa Village. Alta Mesa is an adjacent residential area bordered by two wooded greenbelts. The same pattern runs through Monterey Vista and Old Town (formerly known as Monte Regio) to the Presidio, although this part of the city has been developed more into single-family homes.

Many of the canyons act as the circulation links serving the mesas. Highway 68, Josselyn Canyon Road, Aguajito Road, Iris Canyon Drive, and Pacific Street all run through canyons, which connect with Fremont Street. The beauty of Highway 68 (Monterey-Salinas Highway) stems from its location in a wooded canyon. These roads thus serve the mesas as wooded, park-like drives, and provide aesthetically pleasing and environmentally sensitive open space within the city. Monterey growth has developed the following physical features: Downtown commercial on the flatter old marsh area, lighter commercial and medium-density residential on the sloping mesas, neighborhoods separated by the wooded canyons, and low-density residential in the steep wooded foothills.

Scenic Entryways and Corridors

The 2005 General Plan Urban Design Element establishes that all major roads leading to Monterey are scenic corridors. The setting of each varies, and their sum imparts a strong and lasting impression of natural beauty. Additionally, there is one State-designated Scenic Highway and one eligible scenic highway in the Planning Area. According to maps produced by the California Department of Transportation Scenic Highways Mapping Project, the State-designated scenic highway is Highway 1, from Marina State Beach to Carmel-By-the Sea and Point Lobos Nature Reserve. The eligible highway segment is Highway 68 (Monterey-Salinas Highway), from Highway 1 to the Fort Ord National Monument and River Road Scenic Drive. Highway 68 stems from its location in a wooded canyon. Scenic entryways and corridors provide tree-lined, picturesque roads that contribute to the city's aesthetic charm and its environmentally sensitive open space.. Figure 3.1-1 shows scenic entryways and corridors in or near the Planning Area.

Highway 1

State Route 1 (Highway 1) is the major highway in the Monterey Peninsula that travels north-south and runs along the Pacific coastline. Highway 1 runs through the middle of Monterey and has views of the wooded hillsides and the coastline.

Monterey-Salinas Highway

The Monterey-Salinas Highway (California State Route 68 or Highway 68) runs from the easternmost part of Monterey near Ryan Ranch to the north and intersects with Highway 1 in central Monterey. Highway 68 is known for its rolling meadows, steep hillsides, and high ridges, and is the scenic entrance for those visiting from the Salinas area.

Munras Avenue

Munras Avenue runs north to south from El Dorado Street to Soledad Drive, where it becomes an on-ramp for North Highway 1. Munras Avenue is a scenic entrance for those visiting the Del Monte Shopping Center and various visitor accommodation facilities along the street.

Del Monte Avenue

As mentioned above, Del Monte Avenue is the City's main entry point and carries vehicles to the City's commercial, business, and tourism centers. Del Monte Avenue enters the Planning Area from the east. At Washington Street, Del Monte Avenue connects with the Lighthouse Tunnel to provide access to New Monterey, Lighthouse Avenue, Cannery Row, and the City of Pacific Grove.

Aguajito, Jacks Peak, and Monhollan Roads

Aguajito Road travels north from the Highway 1 Gate near 17 Mile Drive through the Jack's Peak neighborhood, passing by La Mesa Village, the Monterey County Courthouse, and ending at Fremont Street by Monterey Peninsula College. Jacks Peak Road leads to Jacks Peak County Park, which overlooks the Monterey Peninsula. Aguajito Road leads to Monhollan Road near the Deer Flats neighborhood. Monhollan Road provides connection to Olmsted Road and then to the scenic entrance of Highway 68.

Pacific Street

Pacific Street runs parallel to Munras Avenue, running north from Soledad Drive, passing by Monterey Public Library and City Hall, and merging with Lighthouse Avenue closer to the water. Pacific Street runs north to south in Monterey, providing an alternate route to those travelling via Munras Avenue.

Lighthouse Avenue

Lighthouse Avenue is predominately a commercial street with buildings located at the back of sidewalk. The street is one of the gateways into the City of Pacific Grove that borders Monterey.

North Fremont Street

North Fremont Street was the previous regional transportation corridor before Highway 1 was constructed. It has a center median, dedicated bike path, four lanes of traffic (two in each direction) and various older commercial buildings. This street is an emerging gateway into the community and needs to be revitalized.

Scenic Vistas

The General Plan Urban Design Element also identifies a number of vistas, which focus on Monterey's most scenic amenities. Scenic vistas are described below and include school campuses, Monterey Bay Park, Wharf and Cannery Row, Del Monte Lake at Naval Postgraduate School, Highways 1 and 68, Del Monte Avenue from Seaside to Washington Street, and the Lighthouse Curve. Figure 3.1-2 shows scenic vistas in or near the Planning Area.

Campuses

Monterey Peninsula College

Monterey Peninsula College (MPC) campus is a scenic vista for those entering Monterey via Highway 1 North. MPC is an 85-acre campus with an array of open space and greenery located at the intersection of Fremont Street and Aguajito Road. MPC is a public community college providing educational programs and services to approximately 13,000 students annually at the Monterey campus and off-campus locations. MPC is situated within one-half mile of other scenic vistas including Del Monte Lake and Fisherman's Wharf.

Naval Postgraduate School

The Naval Postgraduate School (NPS) is a scenic vista for those travelling east-west along Del Monte Avenue, as well as those travelling north on Highway 1. NPS is a public graduate school operated by the Naval Support Activity Monterey (NSA Monterey) that features Del Monte Lake (City scenic vista), various campus facilities, and open space throughout. NPS provides postgraduate degrees for military personnel and is a significant military research center in Monterey, located along Del Monte Avenue between Sloat Avenue and Palo Verde Avenue. NPS is an active United States Navy installation.

Defense Language Institute Foreign Language Center

The Defense Language Institute (DLI) Foreign Language Center at the Presidio of Monterey is a scenic vista located between New Monterey and Downtown Monterey. The Presidio of Monterey is an active United States Army installation that features classrooms and faculty offices lined with wooded scenery. The DLI's Foreign Language Center serves as the primary language instruction facility for all branches of the military.

Figure 3.1-1: Scenic Corridors

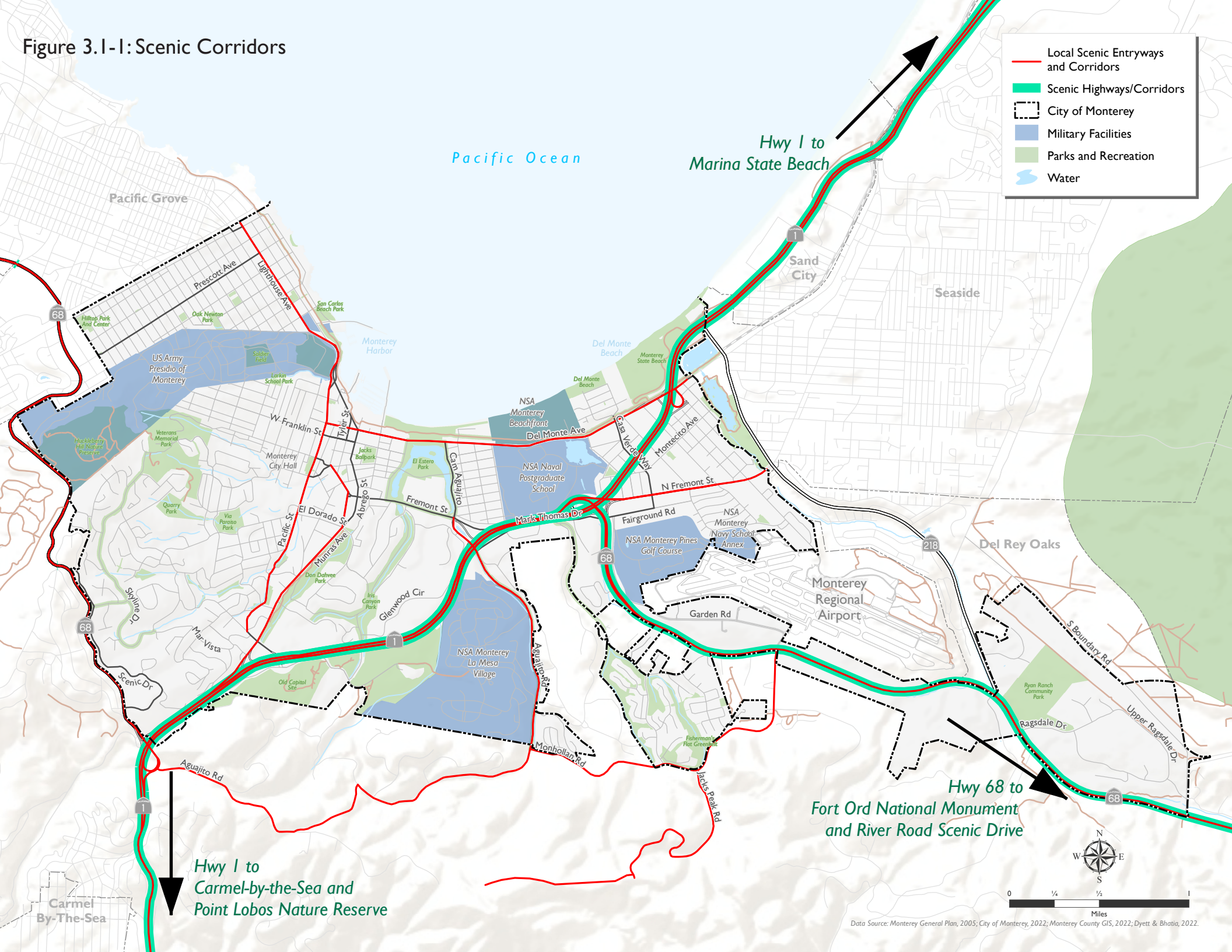
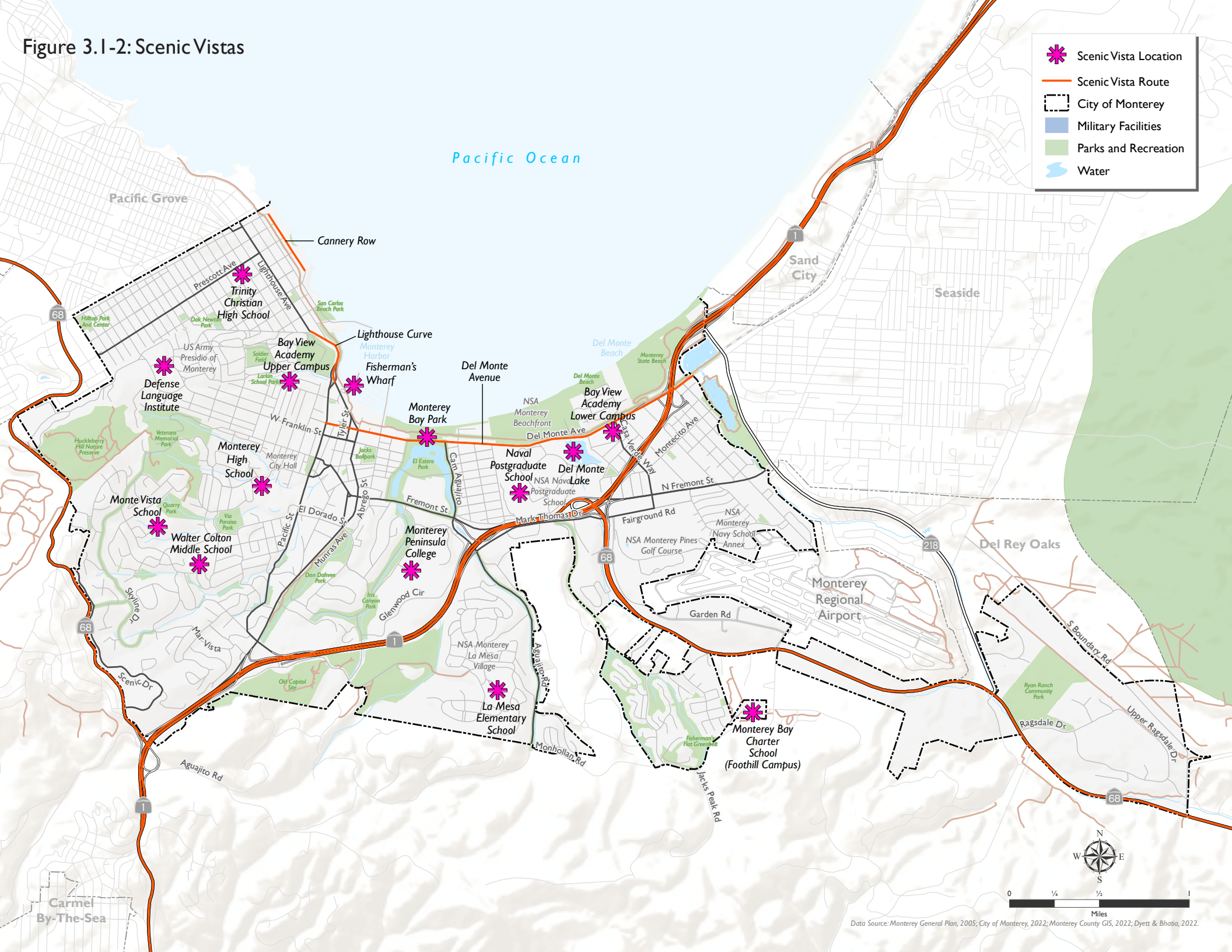


Figure 3.1-2: Scenic Vistas



Monterey Peninsula Unified School District

The following Monterey Peninsula Unified School District (MPUSD) schools around Monterey are identified as scenic vistas: La Mesa School, Monte Vista Elementary School, and Monterey High School. Views of La Mesa School highlight a wooded neighborhood with vast open space atop La Mesa Village. Monte Vista Elementary School is surrounded by trees and vegetation with open space sprinkled throughout. Monterey High School is a scenic vista for those travelling along Herrmann Drive. Monterey High School is surrounded by greenery and open space as well.

Monterey Bay Park

Monterey Bay Park offers views of the Monterey Bay and Monterey Bay Coastal Trail. Monterey Bay Park is located adjacent to Monterey Municipal Beach and Monterey State Beach along Del Monte Avenue between Figueroa Street and Sloat Avenue. The 3.9-acre park includes turf and landscaped areas, sand volleyball courts, picnic and BBQ facilities, and parking. The City has removed a number of structures to open up views to the water and has developed the park area for public use.

Fisherman's Wharf and Cannery Row

Scenic vistas Fisherman's Wharf and Cannery Row are major commercial areas within the Planning Area that offer views of businesses in Fisherman's Wharf fishing and boating enterprises, while Cannery Row views consist of many visitor-serving business and the Monterey Bay Aquarium, which serves as a major attraction for Monterey.

Del Monte Lake at NSA Monterey Naval Postgraduate School

Del Monte Lake is a large surface water body and a key entrance feature found in the City of Monterey, located within the NSA Monterey Naval Postgraduate School. The 2005 General Plan calls for coordination with NSA Monterey to allow use of Del Monte Lake as a historic public view and recreation resource.

Freeway

Highway 1 and Highway 68 are the two major freeways that run thru the Planning Area. Highway 1 is the major highway in the Monterey Peninsula that travels north-south and runs along the Pacific coastline. Highway 1 travels through the middle of Monterey and has views of the wooded hillsides and the coastline. Highway 68 runs from the easternmost part of Monterey near Ryan Ranch to the north and intersects with Highway 1 in central Monterey. Highway 68 is known for its rolling meadows, steep hillsides, and high ridges, and is the scenic entrance for those visiting from the Salinas area.

Del Monte Avenue

Del Monte Avenue is the City's main entry point and carries vehicles to the City's commercial, business, and tourism centers. Travelling along Del Monte Avenue presents City scenic vistas of NPS, Del Monte Lake, and Monterey Bay Park. Del Monte Avenue enters the Planning Area from

the east. At Washington Street, Del Monte Avenue connects with the Lighthouse Tunnel to provide access to New Monterey, Lighthouse Avenue, Cannery Row, and the City of Pacific Grove. The north side of the tunnel connects to Lighthouse Curve, which leads to Lighthouse Avenue and the Cannery Row area via Foam Street.

Lighthouse Curve

Travelling along the Lighthouse Curve presents views of the Monterey Bay and Presidio of Monterey. Lighthouse Curve connects Downtown Monterey to the Lighthouse area and is presently divided with two travel lanes southbound and three travel lanes northbound. Lighthouse Curve is the City's most heavily traveled street and experiences severe congestion with some long-term backups from both directions on critical approaches.

Light and Glare

Glare refers to the discomfort or impairment of vision experienced when a person is exposed to a direct or reflected source of light, causing objectionable brightness greater than that to which the eyes are adapted. Sources of glare in urban settings include sunlight reflected in the windows of buildings, including glass façades, and cars. Lighted signs on multi-story buildings are another source of light. Existing development and motor vehicles produce light and glare throughout Monterey. Primary existing sources of light are streetlights, parking lot lights, and automobile headlights.

REGULATORY SETTING

Federal

No existing federal regulations pertain to visual resources in City of Monterey.

State

California Department of Transportation (Caltrans)

Caltrans defines a scenic highway as any freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality. Suitability for designation as a state scenic highway is based on vividness, intactness, and unity of the view, as described in Guidelines for Official Designation of Scenic highways (Caltrans 1995).

- Vividness is the extent to which the landscape is memorable. This is associated with the distinctiveness, diversity, and contrast of visual elements. A vivid landscape makes an immediate and lasting impression on the viewer.
- Intactness refers to the integrity of visual order in the landscape and the extent to which the natural landscape is free from visual intrusions, such as buildings, structures, equipment, and grading.
- Unity describes the extent to which development is sensitive to and visually harmonious with the natural landscape.

Caltrans has designated one State-designated Scenic Highway and one eligible scenic highway in the Planning Area. The State-designated scenic highway is Highway 1, from Marina State Beach to Carmel-by-the-Sea and Point Lobos Nature Reserve, and a segment of Highway 68 (Monterey-Salinas Highway) from Highway 1 to the Fort Ord National Monument and River Road Scenic Drive. The eligible highway segment is Highway 68, from Asilomar Ave to Route 101.

California Solar Shade Control Act.

Under the California Solar Shade Control Act (Public Resource Code Sections 25980-25986), no property owner shall allow a tree or shrub to be placed or to grow so as to cast a shadow greater than 10 percent at any one time between the hours of 10:00 AM and 2:00 PM over an existing solar collector used for water heating, space heating or cooling, or power generation on an adjacent property. These limitations apply to the placement of new trees or shrubs, and do not apply to trees and shrubs that already cast a shadow upon that solar collector. The location of a new solar collector is required to comply with local building and setback regulations but must be set back not less than five feet from the property line and must be no less than 10 feet above the ground.[1]

Title 24 Outdoor Lighting Zones

The Building Energy Efficient Standards (California Building Standards Code, California Code of Regulations, Title 24, Part 6, California Energy Code) specify outdoor lighting requirements for residential and non-residential development. The intent of these standards is to improve the quality of outdoor lighting and help reduce the impacts of light pollution, light trespass, and glare. The standards regulate lighting aesthetics, such as maximum power and brightness, shielding, and sensor controls to turn lighting on and off. Different lighting standards are set by classifying areas by lighting zone. The classification is based on U.S. Census Bureau population figures, and the areas can be designated as LZ0 (very low), LZ1 (low), LZ2 (moderate), LZ3 (moderately high), or LZ4 (high). Lighting requirements for dark and rural areas are stricter in order to protect the areas from new sources of light pollution and light trespass. According to the U.S. Census Bureau, portions of Monterey are defined as already developed areas or already developed clusters and are therefore designated as Lighting Zone 3 and Lighting Zone 4 per the California Energy Commission outdoor lighting zone classification standards.

Local

City of Monterey General Plan 2005 (General Plan)

In the Monterey General Plan, the City addresses visual character and quality and scenic resources primarily in the Urban Design and Open Space Elements. The Monterey General Plan includes the following goals and policies related to aesthetics and visual character:

[1] California Codes, Public Resource Code Sections 25980-25986 (https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=PRC&division=15.&title=&part=&chapter=12.&article=).

Urban Design Element

Goal a. Balance natural resources and public use of the shoreline and Bay, based on natural features, historic setting, maritime activities, and public access.

> **Policy a.7.** Protect the rugged coastline and open up the view to the water and rocky shore as much as possible while also respecting historic resources and building footprints over the water, as noted in the Cannery Row Local Coastal Program.
>
> **Policy a.9.** Enhance the visual qualities of the Monterey Bay Coastal Trail. Preserve and enhance views from the Trail to natural features as much as possible and encourage access from the trail to the Bay.

Goal b. Preserve the wooded skyline and foothills, which provide the southern and eastern framework for the City, including areas within and beyond the City limits.

Goal c. 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.

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.

> **Policy f.1. Campuses**. Maintain large campuses as open space amenities within Monterey (e.g., Monterey Peninsula College, Naval Postgraduate School, Defense Language Institute, Monterey Peninsula Unified School District, and private school and college sites). Fencing and walls on these large sites should be screened by landscape elements, rather than being placed between landscape elements and streets or vistas.
>
> **Policy f.2. Monterey Bay Park.** Complete Monterey Bay Park.
>
> **Policy f.3. Wharf and Cannery Row.** Maintain and enhance vistas.
>
> **Policy f.4. Del Monte Lake at Navy School**. Open up and maintain the vista of Del Monte Lake from Del Monte Avenue.
>
> **Policy f.5. Freeway.** Preserve and enhance the view of the bay, the dunes, Laguna Grande, Roberts Lake, and wooded hillsides.
>
> **Policy f.6. Del Monte Avenue.** Screen the commercial area along Del Monte Avenue from Seaside to Washington Street.
>
> **Policy f.7. Lighthouse Curve.** Preserve and enhance views of the Presidio and the Harbor.
>
> **Policy f.9.** Discourage high levels of ambient light and maintain night skies where stars can be seen.

Goal h. Protect and enhance scenic entrances, which follow a parkway concept.

Policy h.10. Developments visible from Scenic Entrances should blend into the natural surroundings and not detrimentally impact significant natural features such as the wooded ridgeline, hilltops, etc.

HIGHWAY 1

Policy h.11. Maintain existing vistas of the city, forest, bay and dunes.

Policy h.18. Screen buildings close to the Highway with native vegetation, such as Monterey pines, oaks, and cypress.

MONTEREY-SALINAS HIGHWAY

Policy h.21. Screen buildings close to the Highway with native vegetation, such as Coast Live Oak.

Policy h.22. Maintain the scenic corridor.

DEL MONTE AVENUE

Policy h.24. Enhance the excellent scenic value in the central portion by the Naval Postgraduate School, and make the scenic resources more evident to the public.

AGUAJITO, JACKS PEAK, AND MONHOLLAN ROADS

Policy h.26. Maintain a low-speed scenic road and retain the informal and natural quality.

PACIFIC STREET

Policy h.28. Maintain the natural setting of upper Pacific Street and the street tree canopy along lower Pacific Street.

Open Space Element

Goal a. Preserve the Monterey Bay as the City's most significant natural resource.

Policy a.3. Protect the views into Monterey Bay.

Goal b. Recognize the importance of the shoreline and beaches in providing access to the Monterey Bay as well as preserving specific areas for habitat conservation.

Policy b.4. Protect views of the Monterey Bay from Monterey Bay and Shoreline Parks.

The City of Monterey addresses the following goals and policies related to aesthetics and visual character in various commercial, coastal, and neighborhood plans.

Commercial Plans

Cannery Row Conservation District

The purpose of the Cannery Row Conservation District Design Program is to maintain and preserve the traditional and historic character of the Cannery Row destination, providing guidance for improvement projects, new buildings, and alterations to existing structures. The following design principles convey community policies about the aesthetics and visual resources.

Principle 7. Consider view opportunities throughout the Cannery Row Conservation District.

East Del Monte Avenue Area Plan

East Del Monte Avenue Area Plan aims to implement General Plan policies focused on protecting and enhancing scenic gateways along Del Monte Avenue and screening commercial uses through design, landscape, and parking standards such as reducing street parking. The following design standards are related to aesthetics and visual character of Del Monte Avenue, separated by Policy Areas as noted in the Area Plan.

AREA 1, 2, & 4

- All rooftop equipment shall be hidden from view, screened, or otherwise treated to minimize visual impacts. Recommended treatments include: (a) modification of roof design to minimize equipment visibility, (b) choosing an unobtrusive location and screening using materials and colors complementary to the structure, and (c) choosing an unobtrusive location and coordinating colors with roof and building colors.
- Signs shall not be directed toward Highway 1. This standard includes signs which nominally conform to sign standards based on local street frontages, but are intended to be seen from Highway 1.
- Signs shall not be directed to the Recreation Trail or Del Monte Avenue. Signs shall not be located on the fence facing the Recreation Trail. Signs shall not be located between the fence and the Recreation Trail.
- Trees and shrubs shall not be pruned so that signs and uses are visible from Del Monte Avenue.

AREA 4 ONLY

Buildings fronting on Del Monte Avenue shall provide visual variety. Warehouse-type buildings with large, flat wall surfaces are not allowed. Visual variety can typically be provided in the following manner:

1) Use of variety of building materials
2) Use of pitched roofs and/or variety of roof designs
3) Use of offsets or varied setbacks

Setback from Del Monte Avenue shall be a minimum of ten feet with an average setback of fifteen feet. This setback shall be landscaped.

Fencing visible from Del Monte Avenue or Highway 1 shall provide visual variety and a decorative appearance. This can typically be done by one or more of the following methods:

1) Use or more than one building material
2) Change of height
3) Use of offsets or varied setbacks
4) Use of decorative pilasters

Signs shall not be directed toward Highway 1. This standard includes signs which nominally conform to sign standards based on local street frontages but are intended to be seen from Highway 1.

AREA 5 ONLY

Development visible from Highway 1 shall be screened by dense landscaping or fencing.

Coastal Plans

Cannery Row Coastal Land Use Plan

The Cannery Row Coastal Land Use Plan seeks to guide development in the area with adherence to the California Coastal Act provisions as related to water supply, hazards, aesthetic resources, public access, public recreation, commercial uses, and circulation. The following policies are related to aesthetics and visual character found in the plan.

COASTAL VISUAL RESOURCES

a) Preserve and enhance coastal overviews by establishing a punctuated, low-rise skyline respecting the visual forms of the old canneries with roof surfaces of varying sizes, shapes, and heights broken by skylights, towers, vertical stacks, dormer vents and other projections.
b) As part of new private development on presently vacant and private lands, provide viewpoints along the shoreline. Improvements to and an access easement over the viewpoint are to be required as a condition of the new development. As provided for by Section 30212 of the Coastal Act, this access shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability.

Del Monte Beach Coastal Land Use Plan

Del Monte Beach Coastal Land Use Plan establishes policies related to habitat preservation, coastal erosion, land use designations, and public access. The following LCP policies specifically address the protection and enhancement of coastal visual resources.

1. The City shall cooperate with the U.S. Navy and State Parks to protect and restore the significant vegetation on and behind the back dunes of the Naval Postgraduate School and State Parks property, to maintain this highly scenic corridor along Del Monte Avenue and the Recreation Trail/Transportation Corridor.

31. The landform, eucalyptus row and remnant oaks on the back dune ridge and outer slopes paralleling Del Monte Avenue shall be protected to maintain the visual qualities of this important landscape element for the local entry view, the Recreation Trail/Transportation Corridor, and views from northbound State Route 1 (proposed scenic highway).

Area Plans

Highway 68 Area Plan

Highway 68 is eligible for the State Scenic highway system; however, only the part from Highway 1 to the Salinas River is designated by Caltrans as a scenic highway. Recognizing the value of the area's scenic character, the Highway 68 Plan seeks ways to protect this environmental resource.

Goal A. To preserve the scenic character of the area.

Policy 1. Open space shall be planned to preserve, conserve, and maintain natural resources, rare and endangered plant species, and physical features of the area.

Policy 2. Large continuous expanses of native vegetation and trees should be conserved as the most suitable habitat for maintain abundant and diverse wildlife.

Policy 3. Trees shall be preserved wherever possible and, where appropriate, trees of indigenous nature shall be added.

Policy 4. Development should be oriented to the natural terrain by encouraging innovation in site design, grading technique, building types, and spacing of buildings.

Policy 5. Clustering shall be required where appropriate and feasible.

Policy 6. A mixture of building heights shall be encouraged providing that heights are compatible with the terrain and rural character of the area.

Policy 7. Architectural review of projects shall be required to insure visual compatibility of the development with the surrounding area.

Monterey City Code

Chapter 31 of the City Code regulates the size, type, and location of signs. The purpose of the chapter is to protect and enhance the character and setting of the City of Monterey against visual blight by preventing a proliferation of signs that will detract from, and obscure, the scenic qualities of the City of Monterey and its individual buildings and neighborhoods.

Chapter 37, Preservation of Trees and Shrubs, is intended to preserve Monterey's image of a small-scale residential community beside the Bay, framed by a forested hill backdrop and drawing its charm from a rich historical background, certain commercial enterprises, and natural scenic beauty. Trees within the city significantly contribute to this image. The Preservation of Trees and Shrubs Ordinance is intended to assure preservation of trees and replacement of trees when removal is unavoidable.

Chapter 38, Article 13 of the City Code establishes a design and development control overlay district. The specific purpose of the District is to ensure appropriate review for projects in areas of environmental sensitivity or where urban design and site planning considerations are judged important. Three subdistricts are established under this District, including a Design Control overlay district (D1), Development Control overlay district (D2), and a Historic Development Control overlay district (D3).

Chapter 38, Article 14 establishes the 'S' Special Setback Overlay District which is intended to provide a mechanism for increasing setbacks along scenic streets and highways and the shoreline of Monterey Bay, El Estero, and Roberts Lake to protect natural resources and to achieve a visually pleasing relationship between buildings and the environment where they are located.

Chapter 38, Article 25 of the City Code outlines architectural review procedures and submittal requirements for developments. The purpose of architectural review is to promote orderly development, to ensure high quality design that is harmonious with its surroundings, to implement the General Plan, as well as area or neighborhood plans, and to preserve and promote the visual character of the city.

Chapter 38, Part IV outlines regulations applying in all districts. Section 38-111 includes performance standards. Mirror or highly reflective glass shall not cover more than 20 percent of a building surface visible from a street unless an applicant submits information demonstrating to the satisfaction of the Community Development Director that use of such glass would not significantly increase glare visible from adjacent streets or pose a hazard for moving vehicles. In addition, parking structures and all project lighting shall be screened so the light source will not be visible off site.

Downtown and Lighthouse Specific Plan Objective Design Standards

In 2023, the City of Monterey adopted objective design standards for the Downtown and Lighthouse Specific Plans. The purpose of these design standards is to retain some control of building design and compatibility with surrounding neighborhoods in the Downtown and Lighthouse area. The design standards are organized by subject for each Specific Plan area, which include site planning, topography, open space, public utilities and building services/trash, equipment areas, parking, building design, mass and scale, colors, building materials, lighting, signs, landscaping, and lastly, fences/walls.

Single-Family Dwelling Design Review Areas Guidelines

In 1987, the City of Monterey published guidelines for single family dwellings design review areas. The purpose of these design review guidelines is to assure that all single-family residences in design review areas of the City of Monterey are of good design and appropriate mass and scale to their site, setting, and neighborhood. The guidelines are an expression of the policy of the Architectural Review Committee and represent the standards that the committee will use in evaluation of new single-family residential construction in design review areas.

Impact Analysis

For the purposes of this EIR, a significant impact would occur if implementation of the proposed Plan would:

Criterion 1: **Have a substantial adverse effect on a scenic vista;**

Criterion 2: **Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;**

Criterion 3: **In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point); Or, if the project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality?; or**

Criterion 4: **Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.**

METHODOLOGY AND ASSUMPTIONS

Appreciation of aesthetics and visual resources is generally subjective by nature, and therefore the extent of visual impact associated with adoption and implementation of the Proposed Plan can be difficult to quantify. In addition, it is difficult to estimate the impact future development would have on scenic resources, since individual development projects can be designed to be compatible with and/or enhance the aesthetic quality of an area. As such, this analysis was based on the overall amount of new development at buildout of the Proposed Plan, the potential location of new development, and policies and standards in the Proposed Plan.

RELEVANT PROPOSED GOALS AND POLICIES

The Proposed Plan contains the following goals and policies relevant to aesthetics. The full text of proposed Housing Element programs is included in Appendix A for reference:

Housing

Housing Goal #1. Increase housing supply and facilitate production of at least 3,654 new homes by 2031.

Policy 1.2 Promote infill development in adopted Specific Plan areas where high density residential development can be accommodated in proximity to employment, shopping, transit, recreation, and other services.

Policy 1.3 Promote development of a variety of housing types, sizes, and densities that meet community needs based on the suitability of the land, including the availability of

infrastructure, the provision of adequate services, and recognition of environmental constraints.

Program 1-B Multi-Family Residential Overlay Amendments.

Program 1-E Education Workforce Housing Overlay.

Program 1-F Congregational Overlay.

Program 1-K Employer Sponsored Housing.

Program 1-I Highway 68 Area Plan Update.

IMPACTS

Impact 3.1-1 Development under the Proposed Plan would not have a substantial adverse effect on a scenic vista? *(Less than Significant)*

The Planning Area contains a wide range of scenic resources that contribute to the unique and distinctive character of the community. Chief among these are the coastline and the central ridge of wooded hills that define the local scenic environment. The 2005 General Plan Urban Design Element identifies scenic entryways and corridors as important scenic resources, along with important scenic vistas. Scenic entryways and corridors include all major roads leading into Monterey. Additionally, Highway 1 is a State-designated Scenic Highway from Marina State Beach to Carmel By the Sea and Point Lobos Nature Reserve, and a segment of Highway 68 (Monterey-Salinas Highway) from Highway 1 to the Fort Ord National Monument and River Road Scenic Drive is an eligible State scenic highway. Scenic vistas include: large campuses with open space amenities, including Monterey Peninsula College, Naval Postgraduate School, Defense Language Institute, Monterey Peninsula Unified School District, and private school and college sites; the vista of Del Monte Lake from Del Monte Avenue; the Wharf and Cannery Row; Monterey Bay Park; the view of the Bay, the dunes, Laguna Grande, Roberts Lake, and wooded hillsides; and views of the Presidio and the Harbor. Implementation of the Proposed Plan would allow development within and adjacent to these scenic entryway, corridors, and vistas, including development along Highway 1, Highway 68, Cannery Row, Del Monte Avenue and on the campuses of MPUSD schools. A significant impact would occur if development pursuant to the Proposed Plan would have a substantial adverse effect on any of these scenic vistas or resources.

The 2005 General Plan Urban Design Element includes numerous policies intended to preserve and enhance scenic resources within the Planning Area. Policies a.7, and a.9 call for protection and enhancement of views to and from specific unique shoreline environments (i.e., Cannery Row and Monterey Bay Coastal Trail). Policies f.1 through f.7 under the Vistas section of the Element call for maintaining and expanding existing views of vistas to Monterey Bay Park, Fisherman's Wharf and Cannery Row, Del Monte Lake and other visual features as seen from roadways such as Highway 1, Del Monte Avenue, Lighthouse Curve, parks, and other public spaces. Open Space Element policies a.3 and b.4 address preservation of views into Monterey Bay and Policy c.2 calls for preservation of greenbelts that form the visual backdrop to the city.

Moreover, there are guidelines and policies found in various commercial, coastal, and area plans designed to preserve scenic vistas from potential development in the Planning Area. Cannery Row Conservation District Principle 7 calls for consideration of view opportunities in Cannery Row, while establishing directives for construction of new buildings. The East Del Monte Avenue Area Plan provides design standards for buildings fronting Del Monte Avenue, which include direction on visual variety and signage. The Cannery Row Coastal Land Use Plan outlines policies related to coastal visual resources that aim to preserve and enhance coastal overviews (Policy a), while other policies require improvements to viewpoints as part of new private development on presently vacant and private lands (Policy b). The Del Monte Beach Coastal Land Use Plan describes Del Monte Avenue as a local entry view for travelers exiting from southbound Highway 1 and cites policies to maintain this scenic vista (Policy1 & 2). Lastly, the Highway 68 Area Plan sets out a goal to preserve the scenic character of the area (Goal A), with policies (Policies 1 to 7) that ensure visual compatibility of the development of the surrounding area. In addition, the City Code enforces a variety of protection measures for scenic vistas. Chapter 37 is intended to preserve Monterey's image of a small-scale residential community beside the Bay, framed by a forested hill backdrop and natural scenic beauty. The Preservation of Trees and Shrubs Ordinance is intended to assure preservation of trees and replacement of trees when removal is unavoidable. Chapter 38, Article 14 establishes the 'S' Special Setback Overlay District which is intended to provide a mechanism for increasing setbacks along scenic streets and highways and the shoreline of Monterey Bay, El Estero, and Roberts Lake to protect natural resources and to achieve a visually pleasing relationship between buildings and the environment where they are located. Chapter 38, Article 25 of the City Code outlines architectural review procedures and submittal requirements for developments. The purpose of architectural review is to promote orderly development, to ensure high quality design that is harmonious with its surroundings, to implement the General Plan, as well as area or neighborhood plans, and to preserve and promote the visual character of the city. The seven-member Architectural Review Committee (ARC) reviews all aspects of a Proposed Plan that deal with the outside appearance. The ARC also analyzes landscape areas and planting, architectural style, bulk, mass, and color to make sure they conform with adopted guidelines.

Program 1-E in the proposed Housing Element would involve the adoption of an Education Workforce Housing Overlay to permit multifamily housing development by right at up to 30 du/ac on urban infill sites owned by the MPUSD subject to objective design and development standards. Views of these sites and the open space they contain are identified as scenic vistas in the 2005 General Plan. There are eight MPUSD school sites in the City of Monterey that range in size from approximately 0.5 acres to several acres in size. Implementation of the Proposed Plan would result in up to 100 housing units for MPUSD faculty and staff on some or all of the eight sites. Housing may be accommodated in existing or new buildings, but recreational open space for school activities would remain. As such, the overall amount of development would not be substantial in relation to the area of land and the number of sites on which it would be constructed. Further, the overlay and standards proposed as part of Program 1-E would be designed to integrate the new housing onto MPUSD sites in a context sensitive manner, recognizing that many of the sites are located in established residential neighborhoods. Therefore, implementation of Program 1-E would not substantially degrade scenic vistas on MPUSD campuses and associated impacts would be less than significant.

Overall, with implementation of General Plan policies and existing City regulations substantial adverse effects on scenic vistas and resources in the Planning Area would be minimized to the extent practicable and associated impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.1-2 Development under the Proposed Plan would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. *(Less than Significant)*

As described above, Highway 1 is a State-designated Scenic Highway from Marina State Beach to Carmel-by-the-Sea and Point Lobos Nature Reserve, and a segment of Highway 68 (Monterey-Salinas Highway) from Highway 1 to the Fort Ord National Monument and River Road Scenic Drive is an eligible State scenic highway. The Proposed Plan would allow development adjacent to these segments as they pass through the Planning Area, and a significant impact would result if scenic resources within the segments would be substantially damaged.

The General Plan establishes a framework of policies to preserve and protect scenic resources along these highway segments. Goal h of the Urban Design Element requires the protection and enhancement of scenic entrances within the city. Policy h.10 states that developments visible from scenic entrances should blend into the natural surroundings and not detrimentally impact significant natural features such as the wooded ridgeline, hilltops, etc. Specific to Highway 1, Policy h.11 requires the maintenance of existing vistas of the city, forest, Bay and dunes, while Policy h.18 requires developments close to the highway be screened with native vegetation, such as Monterey pines, oaks, and cypress. Specific to Highway 68, Policy h.22 requires the maintenance of the scenic corridor while Policy h.21 requires developments close to the highway be screened with native vegetation, such as Coast live oak. Additionally, the City Code establishes standards and procedures that would guide development within the designated and eligible highway segments, including Chapter 31 which establishes standards to control the size, type and location of signs, and Chapter 37, which establishes standards and procedures for the preservation of trees which contribute to the natural scenic beauty and character of the Planning Area.

Compliance with these existing regulations and General Plan policies would minimize the potential for significant impacts to scenic resources with State-designated and eligible Scenic Highways. Associated impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.1-3 Development under the Proposed Plan would not substantially degrade the existing visual character or quality of public views of the site and its surroundings in non-urbanized areas or conflict

with applicable zoning and other regulations governing scenic quality in urbanized areas. *(Less than Significant)*

Pursuant to CEQA, the City of Monterey is an "urbanized area."[2] As such, a significant impact would result if the Proposed Plan would conflict with applicable zoning and other regulations governing scenic quality. Implementation of the Proposed Plan would involve zoning amendments to facilitate development of housing as needed to meet the City's RHNA obligations and to ensure compatibility and public safety in the vicinity of the Monterey Regional Airport. Zoning amendments would include updates to the Downtown, North Fremont, and Lighthouse Avenue specific plans to incorporate strategies to assist with the financial feasibility of high density infill housing development, including reduced parking requirements and provisions for permitting density above 30 du/ac (Program 1-C); amendments to the Multifamily Housing Overlay to facilitate high density housing on Garden Road; adoption of an educational workforce housing overlay (Program 1-E) to permit faculty and staff housing on MPUSD properties; adoption of a congregational overlay to allow affordable housing on church properties; adoption of a specific plan with design and development standards for the Fort Ord/Ryan Ranch opportunity area; and amendments to the Highway 68 Area Plan to accommodate housing on the 50-acre MPUSD site. All development would be required to comply with the applicable zoning standards.

Further, as described above, continued implementation of policies from the 2005 General Plan Urban Design Element would help ensure that new development pursuant to the Proposed Plan would not substantially degrade the scenic character of the Planning Area. These policies include Policy h.10, which states that developments visible from scenic entrances should blend into the natural surroundings and not detrimentally impact significant natural features such as the wooded ridgeline, hilltops; Policy h.11, which requires the maintenance of existing vistas of the city, forest, Bay and dunes; Policy h.18, which requires developments close to the highway to be screened with native vegetation, such as Monterey pines, oaks, and cypress; Policy h.22, which requires the maintenance of the scenic corridor; and Policy h.21, which requires developments close to the highway to be screened with native vegetation, such as Coast Live Oak. Therefore, overall, compliance with applicable zoning regulations and General Plan policies would ensure impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.1-4 Development under the Proposed Plan would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. *(Less than Significant)*

Existing developed areas in the city currently generate light and glare, and new development that would be facilitated by the Proposed Plan could result in increased light and glare. Some elements of the built environment, such as parking lots, commercial buildings, and signs, may emit light for 24 hours a day. New sources of daytime glare could include new buildings with reflective surfaces,

[2] Cal. Code Regs. tit. 14, ch. 3, § 15387 ("CEQA Guidelines").

such as office buildings with glazed windows. Such light and glare could affect residential areas, as well as areas frequented by wildlife.

Implementation of the Proposed Plan would result in significant new development in the Highway 68 Plan Area and the Fort Ord/Ryan Ranch opportunity area, which contain large undeveloped areas under existing conditions, thereby increasing light and glare in and around these locations. Other development pursuant to the Proposed Plan would generally be in areas with urban development where sources of light and glare exist already. General Plan Policy f.9 would apply to all development associated with implementation of the Proposed Plan This policy seeks to discourage high levels of ambient light and maintain night skies where stars can be seen. Projects are reviewed for consistency with this policy if the project requires Architectural Review. Additionally, development located in the Multifamily Residential Overlay District would be required to adhere to the applicable standards of Section 38-99.7 (G),), which requires new sources of light to be directed downward to avoid spillage onto adjacent properties and that an exterior lighting plan be prepared; as well as Section 38-111(D), which establishes standards for the use of glass and building materials to minimize light and glare. The City Code also contains lighting standards for parking facilities. Additionally, the 2022 California Green Building Standards Code, adopted as Chapter 9 of the City Code, includes a nonresidential mandatory light pollution reduction measure that establishes maximum allowable light and glare standards for outdoor lighting systems for new nonresidential projects (2022 California Green Building Standards Code, 5.106.8 Light pollution reduction). Further, the General Plan Urban Design Element Policy f.9 discourages high levels of ambient light to maintain night skies where stars can be seen. Specifically for the Lighthouse area, development pursuant to the Proposed Plan would be required to comply with lighting standards in the Lighthouse Specific Plan. Compliance with these existing regulations and General Plan policies would ensure that development under the Proposed Plan would result in less than significant impacts associated with increased light and glare.

Mitigation Measures

None required.

3.2 Agricultural Resources

This section assesses potential environmental impacts on agricultural resources from future development under the Proposed Plan, including those related to farmland as identified by the Farmland Mapping and Monitoring Program of the California Resources Agency; agricultural zoning and Williamson Act contracts; and the conversion of farmland to non-agricultural uses. This section describes existing agricultural resources in the Planning Area, as well as relevant federal, State, and local regulations and programs.

There were no NOP comments related to agricultural resources.

Environmental Setting

PHYSICAL SETTING

Farmland Classification

The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) classifies farmland into the following categories based on soil type and current land use:

- **Prime Farmland.** Land that has the best combination of physical and chemical characteristics for crop production. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when managed (including water management) according to current farming methods. Prime Farmland must have been used for the production of crops within the last three years.
- **Farmland of Statewide Importance.** Land other than Prime Farmland that has a good combination of physical and chemical characteristics for crop production. Similar to Prime Farmland, Farmland of Statewide Importance must have been used for crop production within the last three years.
- **Unique Farmland.** Land that does not meet the criteria for Prime Farmland or Farmland of Statewide Importance, but which is currently used for the production of specific high economic value crops (as listed in the last three years by the California Department of Food and Agriculture). It has the special combination of location, soil quality, growing season, and moisture supply to produce sustained high quality or high yields of a specific crop (e.g., oranges, olives, avocados, rice, grapes, and cut flowers) when treated and managed according to current farming practices.

- **Farmland of Local Importance.** Land that is either currently producing crops or has the capability to do so. It is land other than Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, but it may be important to the local economy due to its productivity.
- **Grazing Land.** Land on which the existing vegetation, whether grown naturally or through management, is suitable for livestock grazing.

However, for the purpose of environmental review, CEQA defines Farmland as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance.[1]

Prime Agricultural Land

The California Association Local Agency Formation Commissions (LAFCO) describes "Prime agricultural land" as an area of land, whether a single parcel or contiguous parcels, that has not been developed for a use other than an agricultural use and that meets any of the following qualifications:

a) Land that qualifies, if irrigated, for rating as class I or class II in the USDA Natural Resources Conservation Service land use capability classification, whether or not land is actually irrigated, provided that irrigation is feasible.

b) Land that qualifies for rating 80 through 100 Storie Index Rating.

c) Land that supports livestock used for the production of food and fiber and that has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture in the National Range and Pasture Handbook, Revision 1, December 2003.

d) Land planted with fruit or nut-bearing trees, vines, bushes, or crops that have a nonbearing period of less than five years and that will return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than four hundred dollars ($400) per acre.

e) Land that has returned from the production of unprocessed agricultural plant products an annual gross value of not less than four hundred dollars ($400) per acre for three of the previous five calendar years.[2]

Agricultural Context

In the State of California, productive farmland acreage has been gradually declining, due primarily to the conversion of farmland to non-agricultural uses. Between 1984 and 2010, the area of farm and grazing lands in the state declined by more than 1.4 million acres, including a loss of 662,000

[1] Public Resources Code Section 21060.1

[2] CALAFCO and American Farmland Trust. February 2018. State of the Art on Agricultural Preservation. Available: https://calafco.org/sites/default/files/documents/CALAFCO_AFT%20White%20Paper%20on%20Ag%20Preservation_Feb%202018%28REV%29.pdf. Accessed: January 17, 2024

acres of Prime Farmland, the farmland type with the best soils for agricultural production.[3] While the average annual acreage count has been decreasing since 1984, Monterey County has seen an increase in the total area of farmland between 2012 and 2017, gaining approximately six percent.[4]

The Planning Area is located in Monterey County, which ranked 4th out of 58 California counties for gross value of agricultural production at $4,426,625.[5] The county's top four commodities by gross value in 2018 were Strawberries, Lettuce (Romaine), Lettuce (Head), and Broccoli. There are 1,340,142 acres of farmland in Monterey County.[6] Approximately 62 percent of this farmland is used as pastureland while 27 percent is cropland, five percent is woodland, and 6 percent is other kinds of uses. However, areas of farmland in the county are concentrated along the Salinas River Valley, as opposed to the primarily urbanized land of the City of Monterey.[7]

Planning Area Overview

While the greater county contains productive and lucrative farmlands, such as in the North County, Greater Salinas, and Central Salinas Valley, the City of Monterey is a developed part of the County with large areas dedicated to open space and much less land in agricultural use. Figure 3.2-1 illustrates the locations of lands within the Planning Area classified as farmland by the FMMP. As shown, the vast majority of the Planning Area is classified as Urban and Built-Up Land or Other Land with a one portion of the area classified as Grazing Land. There are no areas of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance within the Planning Area. Per LAFCO's definition, there is no prime agricultural land mapped in, or adjacent to, the City's Sphere of Influence.[8]

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[3] California Department of Conservation Division of Land Resource Protection (DLRP). 2015. California Farmland Conversion Report 2015. Available: https://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2010-2012/FCR/FCR%202015_complete.pdf. Accessed: March 16, 2022.

[4] United States Department of Agriculture. 2017. Census of Agriculture County Profile, Monterey County California. Available: https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/California/cp06053.pdf . Accessed: October 15, 2023.

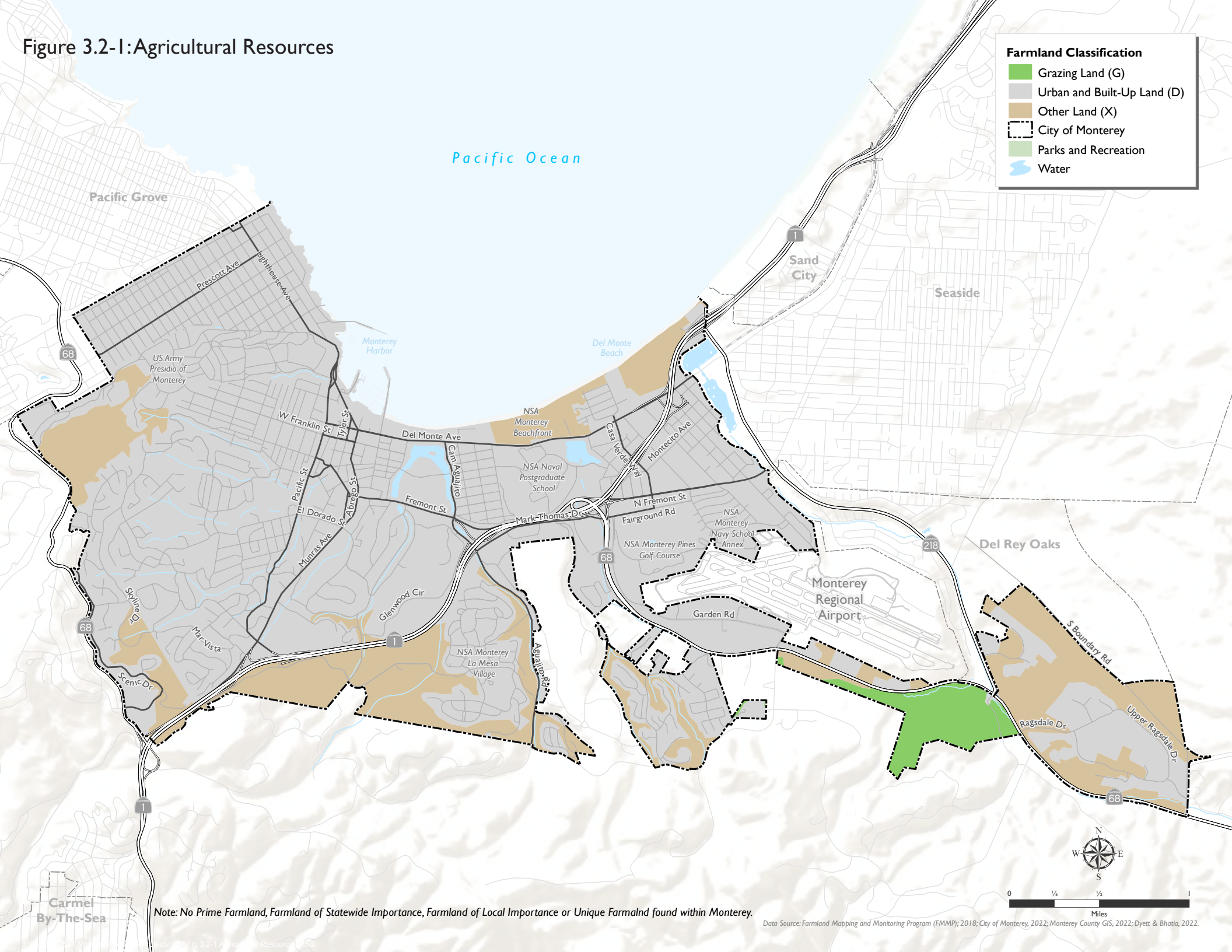
[5] California Department of Food & Agriculture. 2020. California Agricultural Statistics Review 2019-2020. Available: https://www.cdfa.ca.gov/Statistics/PDFs/2020_Ag_Stats_Review.pdf. Accessed: October 10, 2023.

[6] United States Department of Agriculture. 2017. Census of Agriculture County Profile, Monterey County California. Available: https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/California/cp06053.pdf . Accessed: October 10, 2023.

[7] California Department of Conservation. 2022. California Important Farmland Finder. Available: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed: October 23, 2023.

[8] LAFCO of Monterey County. 2011. City of Monterey 2011 Municipal Service and Sphere of Influence Review. Available: https://www.co.monterey.ca.us/home/showpublisheddocument/72896/636851477784100000. Accessed: October 23, 2023.

Figure 3.2-1: Agricultural Resources



Note: No Prime Farmland, Farmland of Statewide Importance, Farmland of Local Importance or Unique Farmalnd found within Monterey.

Data Source: Farmland Mapping and Monitoring Program (FMMP); 2018; City of Monterey, 2022; Monterey County GIS, 2022; Dyett & Bhatia, 2022.

An approximately 150-acre area within the Planning Area is designated as Grazing Land. The Grazing Land is located in the southeastern part of the Planning Area, just south of Highway 68. There is one site identified for housing development under the Proposed Plan that is also located in a part of the Planning Area designated as Grazing Land. This site is a 50-acre parcel owned by the Monterey Peninsula Unified School District (MPUSD). The Highway 68 Area Plan Update envisions a mix of up to 300 low- and moderate-income housing units on this property and will identify portions the site for low-medium density housing, high density housing, and open space preservation.

According to the Monterey City Code, there is no agricultural zoning district in the city. As shown in Figure 3.2-2, the area designated as Grazing Land in the Planning Area is currently zoned as a Planned Community (PC) District, given that it falls within the Highway 68 Area Plan Planning Area. Further, there are no Williamson Act contracts in place within or adjacent to the Planning Area.[9]

REGULATORY SETTING

Federal Regulations

U.S. Department of Agriculture Natural Resources Conservation Service

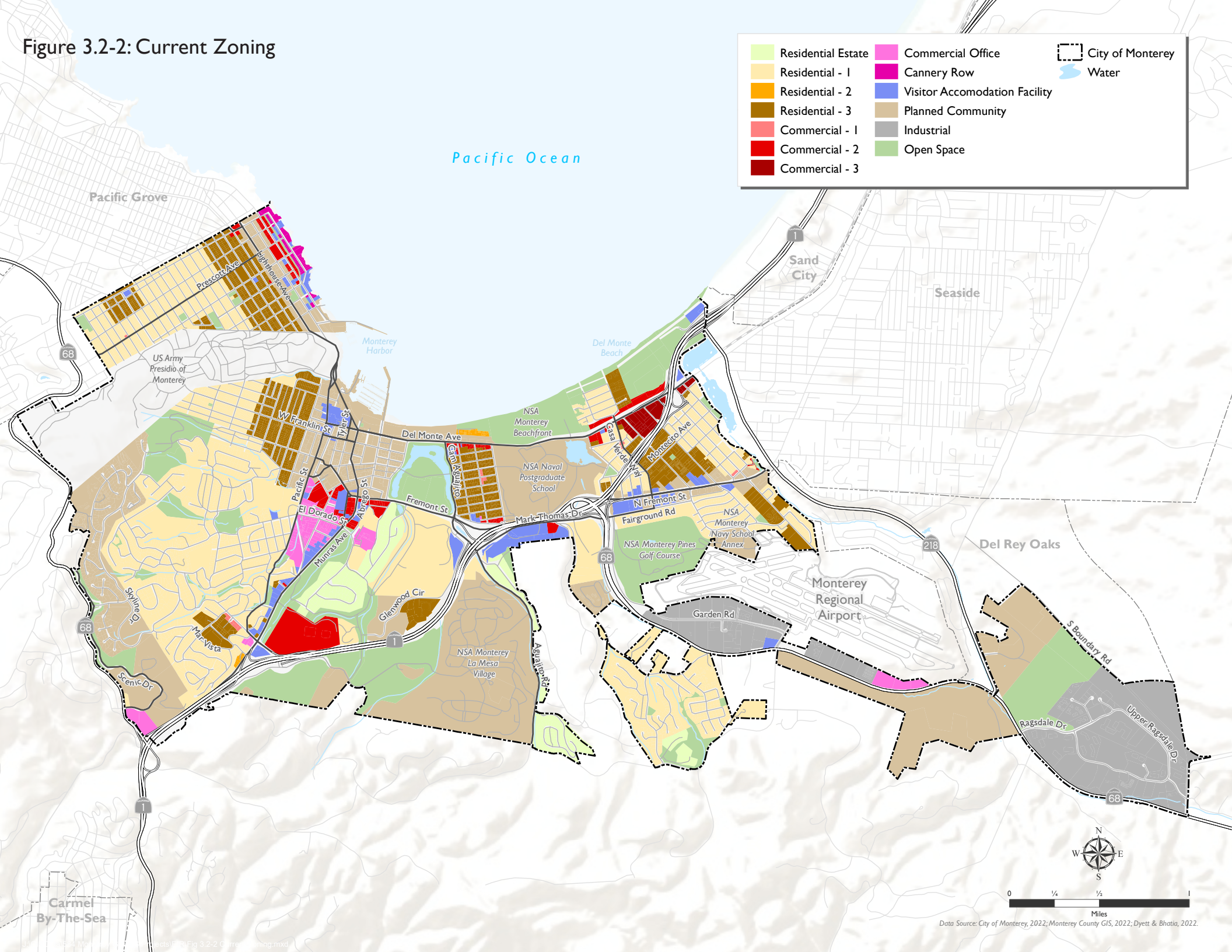
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) maps soils and farmland uses to provide comprehensive information necessary for understanding, managing, conserving, and sustaining the nation's limited soil resources. In addition to many other natural resource conservation programs, the NRCS manages the Farmland Protection Program, which provides funds to help purchase development rights to keep productive farmland in agricultural uses. Working through existing programs, USDA joins with state, tribal, or local governments to acquire conservation easements or other interests from landowners.

Federal Farmland Protection Policy Act, 7 U.S. Code Section 4201 and 7 Code of Federal Regulations 658

The NRCS oversees the Farmland Protection Policy Act (FPPA) (7 U.S. Code [USC] Section 4201 et seq.; see also 7 Code of Federal Regulations [CFR] 658). The FPPA (a subtitle of the 1981 Farm Bill) is national legislation with the following stated purpose: "to minimize the extent to which federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses." The FPPA applies to projects and programs that are sponsored or financed in whole or in part by the federal government and does not apply to private construction projects subject to federal permitting and licensing, projects planned and completed without assistance from a federal agency, federal projects related to national

[9] Monterey County Agricultural Commissioner's Office - GIS. 2016. Williamson Act Contracts. Available: https://montereyco.maps.arcgis.com/apps/webappviewer/index.html?id=9aa9d5bf30904f3c904eb5fe869f62b7. Accessed: October 23, 2023.

Figure 3.2-2: Current Zoning



defense during a national emergency, or projects proposed on land already committed to urban development. The FPPA spells out requirements to ensure federal programs to the extent practical are compatible with state, local, and private programs, and policies to protect farmland and calls for the use of the Land Evaluation and Site Assessment (LESA) system to aid in analysis.

State Regulations

Farmland Mapping and Monitoring Program

The California Department of Conservation FMMP classifies farmland into five different categories based on soil type and current land use, as described above in the Physical Setting. The minimum mapping unit is 10 acres, unless specified.[10]

CEQA Section 21095 and CEQA Guidelines, Appendix G, together, define Prime, Unique, and Farmland of Statewide Importance as "Farmland," whose conversion may be considered a significant impact.

California Farmland Conservancy Program

The California Farmland Conservancy Program (Public Resources Code Section 10200 et seq.) supports the voluntary granting of agricultural conservation easements from landowners to qualified nonprofit organizations, such as land trusts, as well as local governments. Conservation easements are voluntarily established restrictions that are permanently attached to property deeds, with the general purpose of retaining land in its natural, open-space, agricultural, or other condition while preventing uses that are deemed inconsistent with the specific conservation purposes expressed in the easements. Agricultural conservation easements define conservation purposes that are tied to keeping land available for continued use as farmland. Such farmlands remain in private ownership and the landowner retains all farmland use authority, but the farmland is restricted in its ability to be subdivided or used for non-agricultural purposes, such as urban uses.

California Land Conservation Act (Williamson Act)

Williamson Act Contracts

The California Land Conservation Act (Government Code Section 51200 et seq.) of 1965, commonly known as the Williamson Act, provides a tax incentive for the voluntary enrollment of agricultural and open space lands in contracts between local government and landowners. The contract restricts the land to agricultural and open space uses and compatible uses defined in State law and local ordinances. An agricultural preserve, which is established by local government, defines the boundary of an area within which a city or county will enter into contracts with landowners. Local governments calculate the property tax assessment for lands under contract based on the actual use of the land rather than the potential land value assuming full development.

Williamson Act contracts are effective for periods of 10 years and longer. The contract is automatically renewed each year, maintaining a constant, 10-year contract, unless the landowner

[10] California Department of Conservation. 2019. Important Farmland Categories. Accessed at: https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx.

or local government files to initiate non-renewal. Should that occur, the Williamson Act would terminate 10 years after the filing of a notice of non-renewal. Only a landowner can petition for a contract cancellation. Tentative contract cancellations can be approved only after a local government makes specific findings and determines the cancellation fee to be paid by the landowner. There are no Williamson Act contracts located within the Planning Area.

The State of California has the following policies regarding public acquisition of and locating public improvements on lands in agricultural preserves and on lands under Williamson Act contracts (Government Code Section 51290-51295):

- Avoid locating federal, State, or local public improvements and improvements of public utilities, and the acquisition of land, in agricultural preserves;
- Locate public improvements that are in agricultural preserves on land other than land under Williamson Act contract; and
- Any agency or entity proposing to locate such an improvement, in considering the relative costs of parcels of land and the development of improvements, consider the value to the public of land, particularly prime agricultural land, in an agricultural preserve.

Farmland Security Zone Contracts

Since 1998, another option in the Williamson Act Program has been established with the creation of Farmland Security Zone contracts. A Farmland Security Zone is an area created within an agricultural preserve by a board of supervisors upon the request of a landowner or group of landowners. Farmland Security Zone contracts offer landowners greater property tax reduction and have a minimum initial term of 20 years. Like Williamson Act contracts, Farmland Security Zone contracts renew annually unless a notice of non-renewal is filed. Potential cancellation of Williamson Act and Farmland Security Zone contracts would be addressed in subsequent project-level documents.

Open Space Subvention

Under the Open Space Subvention Act of 1971, the State has provided annual subvention payments to counties for foregone property tax revenue due to Williamson Act contracts. The Budget Act of 2009 virtually eliminated these payments for the 2009-10 fiscal year. While partial funding was restored for the 2010-11 fiscal year, long-term State support to counties for agricultural land conservation is uncertain. Despite the elimination of most payments from the State, the California Department of Conservation has continued to release status reports of lands under Williamson Act contracts, with the most recent release occurring in 2015.

Solar Use Easements

In 2011, California passed Senate Bill (SB) 618 (Chapter 596, Statutes of 2011) authorizing property owners under Williamson Act or Farmland Security Zone contracts to rescind the contract and simultaneously enter into a solar-use easement. Solar-use easements require the land to be used for solar photovoltaic facilities for a term of 20 years.

Local Regulations

Monterey City Code

The City of Monterey Zoning Code (Chapter 38 of the City Code) does not include an Agricultural District, but it does include a definition of agricultural use. Section 38-18 defines the Agricultural and Extractive Use Classification as (A) Animal Husbandry, Limited – typical uses include grazing, ranching, dairy farming, and horse breeding and training. This classification excludes poultry and pig farming; (B) Crop Production – raising and harvesting of tree crops, row crops, or field crops on an agricultural or commercial basis, including packing and processing; and (C) Mining and Processing – places or plants primarily devoted to surface or subsurface mining of metallic and nonmetallic minerals, or gas, together with essential on-site processing and production of only nonmetallic mineral products. Typical places are borrow pits, quarries, oil and gas wells, or concrete batch plants.

Impact Analysis

For the purposes of this EIR, a significant impact would occur if implementation of the Proposed Plan would:

Criterion 1: **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;**

Criterion 2: **Conflict with existing zoning for agricultural use, or a Williamson Act contract;**

Criterion 3: **Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.**

METHODOLOGY AND ASSUMPTIONS

Farmland resources and Williamson Act contract data within the Planning Area were assessed based on the California Department of Conservation FMMP, a biennial report and mapping resource on the conversion of farmland and grazing land. Using these sources, the Proposed Plan was analyzed for potential conversion of Farmland, conversion of Williamson Act contract lands, and other changes resulting from the Proposed Plan that may result in the conversion of farmland to urban uses.

RELEVANT PROPOSED GOALS AND POLICIES

The Proposed Plan contains the following goals and policies relevant to agricultural resources. The full text of proposed Housing Element programs is included in Appendix B for reference:

Program 1-I **Highway 68 Area Plan Update.**

IMPACTS

Impact 3.2-1 Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. *(No Impact)*

As noted above, there are no active agricultural activities within the Planning Area. Further, according to the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP), there are no areas of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the Planning Area. Therefore, implementation of the Proposed Plan would have no impact on the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. As a result, there would be no impacts related to conversion of Farmland to non-agricultural use resulting from implementation the Proposed Plan.

Mitigation Measures

None required.

Impact 3.2-2 Conflict with existing zoning for agricultural use, or a Williamson Act contract. *(No Impact)*

As discussed in the Regulatory and Environmental Setting sections, there are currently no areas zoned for agricultural uses and no Williamson Act contracts within the Planning Area. As shown in Figure 3.2-2, the area designated as Grazing Land in the Planning Area is currently zoned as a Planned Community (PC) District, given that it falls within the Highway 68 Area Plan Planning Area. The Proposed Plan would not change the current General Plan land use or zoning designation in this area. Therefore, implementation of the Proposed Plan would have no impact with respect to conflicts with existing zoning for agricultural use or Williamson Act contracts in the Planning Area.

Mitigation Measures

None required.

Impact 3.2-3 Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use. *(Significant and Unavoidable)*

As noted above, the City of Monterey is located in an urbanized part of Monterey County and there are no active agricultural uses within the Planning Area. However, as described above and shown on Figure 3.2-1, a 150-acre area of land in the southeast of the Planning Area is classified as Grazing Land under the FMMP. As depicted in Figure 2.2 of Chapter 2: Project Description of this DEIR, the Grazing Land is currently identified as vacant in data from the Monterey County Assessor and there are no active agricultural uses in this area. Further, Map 3 (Land Use Map) in the existing

City of Monterey General Plan designates the area as a Special Planning Area and it is currently zoned as a Planned Community (PC) District, given that it falls within the Highway 68 Area Plan Planning Area.

Within this area classified by the FMMP as Grazing Land, the Highway 68 Area Plan identifies a 50-acre site owned by MPUSD as a potential location for 300 units of housing to meet the needs of low- and moderate-income households. Program 1-I of the proposed Housing Element would involve an update to the Highway 68 Plan that would permit the development of this parcel with up to 640 new housing units and neighborhood retail and services on a portion of the 50-acre site. While the development of housing on the 50-acre site would be consistent with the Highway 68 Area Plan and while there are no active agricultural activities on the site today, this would result in the conversion of Farmland classified by the FMMP to non-agricultural use, which is a potentially significant impact.

Therefore, implementation of **Mitigation Measure AG-1** is required.

Mitigation Measures

MM-AG-1: Prior to approval of a development project which would convert land classified by the FMMP as Grazing Land to non-agricultural uses, the City shall require the project applicant to offset the loss of such land at a 1:1 ratio, either through the acquisition and dedication of comparable Farmland within Monterey County or through the acquisition and dedication of a conservation easement on comparable Farmland within Monterey County. Dedication of the land or conservation easement shall be to an open space trust or comparable entity acceptable to the City. Alternately, compliance with this mitigation measure may be achieved through participation in the Monterey County Agricultural Conservation Mitigation Program.

Significance After Mitigation: Significant and Unavoidable.

Nevertheless, Farmland is a finite and irreplaceable resource, and therefore not directly mitigable. Even with the acquisition of comparable land or a conversation easement, the conversion of Grazing Land to non-agricultural uses would represent a permanent loss of such land. The Proposed Plan reflects a policy determination to allow a certain amount of growth to occur in the Planning Area, which necessitates conversion of Grazing Land to urban uses. Beyond limiting the area in which growth is permitted, there are no feasible mitigation measures for agricultural land conversion that would also fulfill the objectives of and implement the Proposed Plan. The impact would remain significant and unavoidable.

3.3 Air Quality

This section describes the environmental and regulatory setting for air quality. It also describes impacts related to air quality that would result from implementation of the Monterey 2031 General Plan Update (Proposed Plan) and mitigation for significant impacts where feasible and appropriate. This section has been prepared using methods and assumptions recommended in the air quality impact assessment guidelines of the Monterey Bay Air Resources District (MBARD). The section describes existing air quality in the region, the Proposed Plan's contribution to localized concentrations of carbon monoxide (CO) and particulate matter, regional concentrations of ozone precursors, impacts from vehicular emissions that have regional effects, and the exposure of sensitive receptors to Plan-generated toxic air contaminants (TACs). Appendix E includes a detailed summary of the data used in this analysis.

There was one response to the Notice of Preparation (NOP) regarding topics covered in this section: The Department of the Navy, Naval Support Activity Monterey (NSA Monterey) commented that Del Monte Avenue and Aguajito Road are prime commuting corridors for their properties and air quality impacts due to traffic should be considered along these roadways.

Environmental Setting

PHYSICAL SETTING

The City of Monterey encompasses a 8.67-square-mile area along the southern shore of Monterey Bay within the North Central Coast Air Basin (NCCAB). Ambient air quality is affected by climatological conditions, topography, and the types and amounts of pollutants emitted. The following sections summarize how air pollution moves through the air, water, and soil within the air basin, and how it is chemically changed in the presence of other chemicals and particles. This section also summarizes regional and local climate conditions, existing air quality conditions, and sensitive receptors that may be affected by project-generated emissions.

Although the primary factors that determine air quality are the locations of air pollutant sources and the amount of pollutants emitted from those sources, meteorological conditions and topography are also important factors. Atmospheric conditions, such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. Unique geographic features throughout the state define fifteen air basins with distinctive regional climates.

The NCCAB covers more than 5,100 square miles and consists of Monterey, Santa Cruz, and San Benito counties. The northwestern portion of the air basin is dominated by the Santa Cruz

Mountains. The southern extent of these mountains, together with the Diablo Range along the northeastern boundary, form Santa Clara Valley, which extends from the northeastern edge of the air basin southward, where it transitions to San Benito Valley, which runs northwest to southeast along the eastern side of the Gabilan Range. Salinas Valley extends from the City of Salinas to the northwest to south of King City, between the Gabilan Range to the east and Sierra de Salinas and Santa Lucia Mountains to the west.

The Monterey Bay coastal climate is primarily characterized by west-northwest and northwesterly winds, driven by high pressures offshore and low pressures in the warm inland areas that produce a relatively strong cross-coast pressure gradient. During dry-season months (May to October) when the North Pacific high-pressure system is located at its more northern location, the mean wind direction is from the west northwest/northwest. The mean wind direction changes to a more westerly direction during wet-season months (November to April) when the high-pressure region shifts south. Wind speeds range from an average of about 4.5 to 6.7 miles per hour (mph) in January to about 7.8 to 8.9 mph in April to June.[1]

Like other maritime climates, air temperatures in the Monterey Bay subregion are moderated by the bay, with considerable day-to-day persistence and seasonal mean temperature variations of about 41 degrees Fahrenheit (°F). Climate data from the Monterey national weather station, located just northwest of the Monterey Regional Airport, was used to characterize varying climate conditions. Peak maximum summer temperatures typically occur in August, with a high of 67.3°F and a low of 54.5°F on average. Peak minimum winter temperatures typically occur in January, with a high of 57.8°F and a low of 41.8°F on average. Rainfall varies widely from year to year, with an average annual precipitation of 17.84 inches, falling primarily between December and March.[2]

Pollution potential is relatively high in this subregion during the summer and fall, when high pressure dominates and results in inversions with low mixing depths and coastal wind patterns that inhibit air movement. The northwest-southeast orientation of the mountainous ridges in the region also tends to restrict and channel onshore air currents during the summer, particularly during the afternoon and evening. In the fall, weaker winds and shallow marine layer result in a relatively stationary air mass that allows pollutants to build up over the period of a few days. North or east winds during this season may also develop to transport pollutants from the San Francisco Bay area and Central Valley into the NCCAB, adding to the locally emitted pollutant mix.[3] Air quality in the NCCAB is generally good during the winter and early spring due to the shift in wind direction and general absence of persistent inversions. Air pollution sources include light and heavy industry, and

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[1] Wendell Nuss, "Climate & Meteorology, I. General Meteorological Conditions" [from "Monterey Bay National Marine Sanctuary Site Characterization"], Monterey Bay National Marine Sanctuary Bibliographic Database, National Oceanic and Atmospheric Administration, 1996, Last reviewed: September 8, 2023, https://montereybay.noaa.gov/sitechar/clim1.html.

[2] National Centers for Environmental Information, Summary of Monthly Normals 1981-2010 [Generated on November 20, 2023 for Station: Monterey NWSFO, CA US USC00045802], Climate Data Online, National Oceanic and Atmospheric Administration, https://www.ncdc.noaa.gov/cdo-web/datasets/NORMAL_MLY/stations/GHCND:USC00045802/detail.

[3] Monterey Bay Air Resources District, 2012-2015 Air Quality Management Plan [Adopted by District Board of Directors on March 15, 2017], https://www.mbard.org/files/6632732f5/2012-2015-AQMP_FINAL.pdf.

motor vehicles. Increases in motor vehicle traffic and congestion may increase pollution in the subregion as well as that of its neighboring subregions.

CRITERIA AIR POLLUTANTS

The federal and state governments have established ambient air quality standards for six criteria pollutants. Ozone is considered a regional pollutant because its precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead are considered local pollutants that tend to accumulate in the air locally. Particulate matter (PM) is both a regional and local pollutant. The primary criteria pollutants generated by the Proposed Plan are ozone precursors, including nitrogen oxides (NO_X) and reactive organic gases (ROGs), CO, and PM.[4]

All criteria pollutants can have human health effects at certain concentrations. The ambient air quality standards for these pollutants are set to protect public health and the environment with an adequate margin of safety (Clean Air Act [CAA] Section 109). Epidemiological, controlled human exposure, and toxicology studies evaluate potential health and environmental effects of criteria pollutants, and form the scientific basis for new and revised ambient air quality standards. Principal characteristics and possible health and environmental effects from exposure to the primary criteria pollutants generated by the project are discussed below.

Ozone

Ozone (O_3, or "smog") is a photochemical oxidant that is formed when ROG and NO_X (both byproducts of the internal combustion engine) react with sunlight. ROG, more broadly referred to as volatile organic compounds (VOCs),[5] are compounds made up primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle use is the major source of hydrocarbons. Other sources of ROG are emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. The two major forms of NO_X are nitric oxide (NO) and NO_2. NO is a colorless, odorless gas that forms from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown irritating gas formed by the combination of NO and oxygen.

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[4] As discussed above, there are also ambient air quality standards for SO_2, lead, sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particulates. However, these pollutants are typically associated with industrial sources, which are not included as part of the project. Accordingly, they are not evaluated further. Most emissions of NO_x are in the form of nitric oxide (NO). Conversion to NO_2 occurs in the atmosphere as pollutants disperse downwind. Accordingly, NO_2 is not considered a local pollutant of concern for the project and is not evaluated further. Source: Reşitoğlu, Ibrahim A. 2018. *NO_x Pollutants from Diesel Vehicles and Trends in Control Technologies.* Published November 5. DOI: 10.5772/intechopen.81112. Available: https://www.intechopen.com/books/diesel-and-gasoline-engines/no-sub-x-sub-pollutants-from-diesel-vehicles-and-trends-in-the-control-technologies. Accessed: July 1, 2021.

[5] EPA formerly defined the regulated organic compounds in outdoor air as "Reactive Organic Gases" (ROGs), intended to specifically refer to reactive chemicals; however, EPA later revised this terminology to "Volatile Organic Compounds" (VOCs) to more broadly encompass organic (carbon) compounds that participate in atmospheric photochemical reactions (i.e., contribute to ozone) in both indoor and outdoor air.

In addition to serving as an integral participant in ozone formation, NO_X also directly acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

Ozone poses a higher risk to those who already suffer from respiratory diseases (e.g., asthma), children, older adults, and people who are active outdoors. Exposure to ozone at certain concentrations can make breathing more difficult, cause shortness of breath and coughing, inflame and damage the airways, aggravate lung diseases, increase the frequency of asthma attacks, and cause chronic obstructive pulmonary disease. Studies show associations between short-term ozone exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to ozone may increase the risk of respiratory-related deaths.[6] The concentration of ozone at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion (ppb) of ozone and a 50 percent decrease in forced airway volume in the most responsive individual. Although the results vary, evidence suggests that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum ozone concentration reaches 80 ppb.[7]

In addition to human health effect, ozone has been tied to crop damage, typically in the form of stunted growth, leaf discoloration, cell damage, and premature death. Ozone can also act as a corrosive and oxidant, resulting in property damage such as the degradation of rubber products and other materials.

Carbon Monoxide

Carbon monoxide is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. In the study area, high CO levels are of greatest concern during the winter, when periods of light winds combine with the formation of ground-level temperature inversions from evening through early morning. These conditions trap pollutants near the ground, reducing the dispersion of vehicle emissions. Moreover, motor vehicles exhibit increased CO emission rates at low air temperatures. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation. Exposure to CO at high concentrations can also cause fatigue, headaches, confusion, dizziness, and chest pain. There are no ecological or environmental effects of CO at or near existing background CO levels.[8]

Particulate Matter

PM consists of finely divided solids or liquids, such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized: respirable coarse particles with an aerodynamic

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[6] U.S. Environmental Protection Agency, "Ground-level Ozone Basics," Last updated June 2, 2023, https://www.epa.gov/ground-level-ozone-pollution/ground-level-ozone-basics#wwh.

[7] U.S. Environmental Protection Agency, "Health Effects of Ozone in the General Population," Last updated April 20, 2023, https://www.epa.gov/ozone-pollution-and-your-patients-health/health-effects-ozone-general-population.

[8] California Air Resources Board, "Carbon Monoxide & Health," Accessed November 28, 2023, https://ww2.arb.ca.gov/resources/carbon-monoxide-and-health.

diameter of 10 micrometers or less (PM_{10}), and respirable fine particles with an aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$). Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind on arid landscapes also contributes substantially to local particulate loading. PM is considered both a local and a regional pollutant.

Particulate pollution can be transported over long distances and may adversely affect humans, especially people who are naturally sensitive or susceptible to breathing problems. Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease. Other symptoms of exposure may include nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms. Depending on composition, both PM_{10} and $PM_{2.5}$ can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain.[9]

OTHER CRITERIA POLLUTANTS

The California Air Resources Board (CARB) has also established the California Ambient Air Quality Standards (CAAQS) for hydrogen sulfide (H_2S), sulfates, vinyl chloride, and visibility-reducing particles. These pollutants are not addressed by federal standards. Below is a summary of the pollutants and a description of their physical properties, health and other effects, sources, and the extent of the problems.

Hydrogen Sulfide

Hydrogen sulfide (H_2S) emissions often are associated with geothermal activity, oil and gas production, refining, sewage treatment plants, and confined animal feeding operations. H_2S in the atmosphere will likely oxidize into SO_2, which can lead to acid rain. At low concentrations, H_2S may cause irritation to the eyes, mucous membranes, and respiratory system, dizziness, and headaches. In high concentrations (800 parts per million can cause death), H_2S is extremely hazardous, especially in enclosed spaces. The Occupational Safety and Health Administration (OSHA) has the primary responsibility for regulating workplace exposure to H_2S.

Sulfates

Sulfates are another particulate product that results from the combustion of sulfur-containing fossil fuels; however, the majority of ambient sulfates is formed in the atmosphere. When SO_2 comes in contact with oxygen it precipitates out into sulfates. The health effects associated with SO_2 and sulfates more commonly known as sulfur oxides (SO_X) include respiratory illnesses, decreased pulmonary disease resistance, and aggravation of cardiovascular diseases. When acidic pollutants and particulates are also present, SO_2 tends to have an even more toxic effect. Increased PM derived from SO_2 emissions also contributes to impaired visibility. In addition to particulates, sulfur trioxide and sulfate ion are precursors to acid rain. SO_X and NO_X are the leading precursors to acid rain, which can lead to corrosion of human-made structures and cause acidification of water bodies.

[9] U.S. Environmental Protection Agency, "Health and Environmental Effects of Particulate Matter (PM)," Last updated August 23, 2023, https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm.

Visibility-Reducing Particles

Visibility-reducing particles consist of PM generated from a variety of natural and manmade sources and vary greatly in shape, size, and chemical composition. Some haze-causing particles (e.g., windblown dust and soot) are directly emitted into the air, whereas others are formed in the air from the chemical transformation of gaseous pollutants (e.g., sulfates, nitrates, organic carbon particles), which are the major constituents of fine PM. These fine particles, caused largely by the combustion of fuel, can travel hundreds of miles and cause visibility impairment. California has been labeled unclassified for visibility—CARB has not established a method for measuring visibility with the precision and accuracy needed to designate areas attainment or nonattainment.

Vinyl Chloride

Vinyl chloride is a colorless, sweet-smelling gas at ambient temperature. Landfills, publicly owned treatment works, and polyvinyl chloride production are the major identified sources of vinyl chloride emissions in California. Polyvinyl chloride can be fabricated into several products, such as pipes, pipe fittings, and plastics. In humans, epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of liver angiosarcoma, a rare cancer, and have suggested a relationship between exposure and lung and brain cancers.

TOXIC AIR CONTAMINANTS

Although ambient air quality standards have been established for criteria pollutants, no ambient standards exist for TACs. Many pollutants are identified as TACs because of their potential to increase the risk of developing cancer or because of their acute or chronic health risks. For TACs that are known or suspected carcinogens, CARB has consistently found that there are no levels or thresholds below which exposure is risk-free. Individual TACs vary greatly in the risks they present. At a given level of exposure, one TAC may pose a hazard that is many times greater than another. TACs are identified in the California Code of Regulations Title 17, Section 93000, and their toxicity is studied by the California Office of Environmental Health Hazard Assessment (OEHHA). The primary TACs of concern associated with the Proposed Plan are asbestos, benzene, diesel PM, inorganic lead, and perchloroethylene.

Asbestos

Asbestos is the name given to several naturally occurring fibrous silicate minerals, found in its natural state in rock or soil. Before the adverse health effects of asbestos were identified, asbestos was widely used as insulation and fireproofing in buildings because of its heat resistance and strong insulating properties, and it can still be found in some older buildings. The inhalation of asbestos fibers into the lungs can result in a variety of adverse health effects, including inflammation of the lungs, respiratory ailments (e.g., asbestosis, which is scarring of lung tissue that results in constricted breathing), and cancer (e.g., lung cancer and mesothelioma, which is cancer of the linings of the lungs and abdomen). The U.S. Consumer Product Safety Commission banned use of most asbestos-containing materials (ACMs) in 1977 due to their link to mesothelioma. As a result, present sources of ACMs are primarily buildings that were constructed prior to 1977.

Benzene

Benzene (C_6H_6) is a known carcinogen ubiquitously emitted by the marketing and burning of gasoline. Although benzene is treated as a substance without a carcinogenic threshold, health effects other than cancer are not expected to occur at usual ambient levels; however, in areas with elevated benzene levels, such as near gasoline dispensing facilities, the added lifetime cancer risk from ambient air benzene exposure ranges from 22 to 170 cases per million for every part per billion.[10]

Diesel Particulate Matter

Diesel PM is a type of fine PM generated by diesel-fueled equipment and vehicles such as those used for freight and goods movement, construction, and industrial activities. Short-term exposure to diesel can cause acute irritation (e.g., eye, throat, and bronchial), neurophysiological symptoms (e.g., lightheadedness and nausea), and respiratory symptoms (e.g., cough and phlegm). The U.S. Environmental Protection Agency (EPA) has determined that diesel exhaust is "likely to be carcinogenic to humans by inhalation."[11]

Inorganic Lead

Although lead (Pb) is a naturally occurring mineral formed in the earth's crust, "inorganic lead" refers to substances that do not contain carbon but include metallic lead and is considered a potential human carcinogen. More than cancer, however, ambient air exposure to inorganic lead PM at levels below the CAAQS could lead to significant health concerns including neurodevelopmental effects in children and increases in blood pressure and related cardiovascular conditions in adults.

Although leaded automobile (on-road) fuel has been banned in the U.S. since 1995, major sources of outdoor inorganic lead emissions in California include stationary point and area source fuel combustion, aircraft fuel combustion, industrial metal melting, autobody refinishing, cement manufacturing, and incineration. Inorganic lead emissions may deposit and accumulate in soil for many years, and lead-contaminated dust particles could become airborne by wind and agricultural activities.

Indoor concentrations of airborne lead are typically a result of outdoor air particle infiltration, but activities that disturb lead-based paint, such as remodeling or paint removal, can release large amounts of lead-bearing particles into the air. Lead has been banned for use in residential paint since 1978, but housing units built prior to this date are likely to contain lead-based paint. Additionally, lead-based paints are still allowed in industrial, military, and marine applications.

Perchloroethylene

Perchloroethylene (C_2Cl_4, also known as tetrachloroethylene, "perc," or PCE) is a nonflammable, colorless liquid used as a solvent for a wide variety of industrial and commercial activities including

[10] California Air Resources Board and Department of Health Services, Report to the Scientific Review Panel on Benzene, November 27, 1984, https://ww2.arb.ca.gov/sites/default/files/classic/toxics/id/summary/benzene.pdf.

[11] U.S. Environmental Protection Agency, Diesel Engine Exhaust; CASRN N.A., February 28, 2003, https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0642_summary.pdf#nameddest=woe.

dry cleaning, degreasing, paints and coatings, adhesives, aerosols, printing inks, silicones, rug shampoos, and laboratory solvents. A large majority of perchloroethylene emissions result from dry cleaning and degreasing operations. It is a potential carcinogen that may also cause acute toxic health effects, including skin and eye irritation, burns, blistering, and elevated heart rate, as a result of prolonged exposure. Massive acute doses or chronic exposure can affect the central nervous system or liver. However, average ambient or indoor air exposures to perchloroethylene is not expected to have noncarcinogenic chronic health effects.[12]

ODORS

Odors is a pollutant concern in the NCCAB that represents emissions of one or more pollutants that are a nuisance to healthy persons and may trigger respiratory illnesses. Pollutants associated with objectionable odors include sulfur compounds and methane. Typical sources of odors include landfills, rendering plants, chemical plants, agricultural uses, wastewater treatment plants, and refineries. Odors are a complex problem that can be caused by minute quantities of substances, but the nuisance level of an odor may vary due to subjectivity. According to MBARD guidelines, projects that would emit pollutants associated with objectionable odors in substantial concentrations could result in significant impacts if odors would cause injury, nuisance, or annoyance to a considerable number of persons or would endanger the comfort, health, or safety of the public; such projects should assess the impact on existing or reasonably foreseeable sensitive receptors using a protocol determined with MBARD.

EXISTING AIR QUALITY CONDITIONS

Ambient Criteria Pollutant Concentrations

There are seven MBARD-operated ambient air quality monitoring stations located in NCCAB to monitor progress toward air quality standards attainment of the National Ambient Air Quality Standards (NAAQS) and CAAQS. The NAAQS and CAAQS are discussed further below, under the Regulatory Setting section. There are no monitoring stations in the City of Monterey. The nearest monitoring station is approximately 12 miles southeast in Carmel Valley; however, the Salinas station (approximately 16 miles northeast) is used to characterize ambient air quality because it is more representative of climate and meteorological conditions in Monterey. Table 3.3-1 summarizes data for criteria air pollutant levels from the Salinas monitoring station from 2020 to 2022, the most recent three-year period for which there is complete data, except for PM_{10} where no data were available. Table 3.3-1 shows that $PM_{2.5}$ concentrations were in violation of federal standards in 2020. Federal and state standards for other pollutants were not exceeded. These existing $PM_{2.5}$ violations of ambient air quality standards indicate that certain individuals exposed to this pollutant may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

[12] California Air Resources Board and Department of Health Services, Initial Statement of Reasons for Rulemaking: Staff Report/Executive Summary – Proposed Identification of Perchloroethylene as a Toxic Air Contaminant, August 1991, https://ww2.arb.ca.gov/sites/default/files/classic/toxics/id/summary/perchlor.pdf.

Table 3.3-1: Ambient Air Quality (Salinas Monitoring Station, 2020-2022)

Pollutant Standards	*2020*	*2021*	*2022*
Ozone (O_3)			
Maximum 1-hour concentration (ppm)	0.073	0.064	0.057
Maximum 8-hour concentration (ppm)	0.057	0.052	0.049
Number of days standard exceeded [a]			
CAAQS 1-hour (> 0.09 ppm)	0	0	0
CAAQS 8-hour (> 0.070 ppm)	0	0	0
NAAQS 8-hour (> 0.070 ppm)	0	0	0
Carbon Monoxide (CO)			
Maximum 1-hour concentration (ppm)	1.6	7.5	6.7
Maximum 8-hour concentration (ppm)	1.2	1.3	1.3
Number of days standard exceeded [a]			
NAAQS 1-hour (≥ 35.0 ppm)	0	0	0
CAAQS 1-hour (≥ 20.0 ppm)	0	0	0
NAAQS 8-hour (≥ 9.0 ppm)	0	0	0
CAAQS 8-hour (≥ 9.0 ppm)	0	0	0
Nitrogen Dioxide (NO_2)			
State maximum 1-hour concentration (ppm)	0.032	0.027	0.030
State second-highest 1-hour concentration (ppm)	0.028	0.027	0.028
Annual average concentration (ppm)	0.004	0.003	–
Number of days standard exceeded [a]			
CAAQS 1-hour (0.180 ppm)	0	0	0
Fine Particulate Matter ($PM_{2.5}$) [b, c]			
National maximum 24-hour concentration (μg/m^3)	87.0	19.7	23.8
National second-highest 24-hour concentration (μg/m^3)	81.4	19.6	17.7
State maximum 24-hour concentration (μg/m^3)	87.0	19.7	23.8
State second-highest 24-hour concentration (mg/m3)	81.4	19.6	17.7
National annual average concentration (μg/m^3)	6.8	4.8	5.1
State annual average concentration (μg/m^3)	6.8	6.8	5.1
Measured number of days standard exceeded [a]			
NAAQS 24-hour (> 35 μg/m^3)	9	0	0

Notes:

a. An exceedance is not necessarily related to a violation of the standard.
b. National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.
c. State statistics are based on approved local samplers and local conditions data. State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

ppm = parts per million; NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; μg/m^3 = micrograms per cubic meter, mg/m^3 = milligrams per cubic meter, – = no data available

Sources: California Air Resources Board, iADAM: Air Quality Data Statistics – Top 4 Summary (2020-2023), Monterey County, Salinas-#3), https://www.arb.ca.gov/adam/topfour/topfourdisplay.php., 2023; U.S. Environmental Protection Agency, Outdoor Air Quality Data, Monitor Values Reports (Carbon Monoxide, 2020-2022, Monterey County, Salinas 3), Last updated August 22, 2023, https://www.epa.gov/outdoor-air-quality-data/monitor-values-report.

Existing TAC Sources and Health Risks

The MBARD regulates TACs from new or modified sources under Rule 1000 and a Board-approved protocol, which apply to any source that requires a permit to construct or operate and has the potential to emit carcinogenic or noncarcinogenic TACs. Noncarcinogenic TAC sources must apply reasonable control technology. Carcinogenic TAC sources are also required to install best control technology and reduce cancer risk to less than one incident (of contracted cancer over the course of a lifetime) per 100,000 population. In addition, if a new or modified source of hazardous emissions is within 1,000 feet from a school site, MBARD is required to notify families of enrolled children and all persons within 1,000 feet of the source before approving any permits. If a project involves purchasing or constructing a new school site, the lead agency must consult MBARD to identify facilities that emit hazardous air pollutants within one-quarter mile of the site.

Existing facilities are regulated by MBARD Rule 1003, Air Toxic Emissions Inventory and Risk Assessments, which requires that potential noncancer health effects from acute and chronic exposure to toxic emissions are compared to reference exposure levels. Any increased cancer risk resulting from an existing facility's emissions must be less than one incident per 100,000 population. According to the EPA's AirToxScreen Mapping Tool (based on 2019 emissions), there are 20 facilities that emit TACs in Monterey, including gasoline dispensing facilities, dry cleaners, and military facilities. Table 3.3-2 shows the existing stationary emission sources within the Planning Area. Tetrachloroethylene, a byproduct of dry cleaning, represents nearly the entire share of TACs emitted by these facilities, followed far behind by benzene from gas stations. However, the greatest health risks in the area are posed by formaldehyde and carbon tetrachloride. Cumulatively, cancer risk is low overall, ranging from about 10 to 20 cases of contracted cancer over a lifetime per million population. Noncancer hazard indices for respiratory, neurological, liver, kidney, and immunological risks are also well below the threshold beyond which adverse noncancer effects are likely to occur.[13]

Aside from stationary sources, emissions of TACs in and around the Planning Area are also generated from mobile sources, which include on-road and off-road vehicles. High-volume roadways and those used for goods movement are more likely to be frequented by diesel-fueled vehicles, and certain commercial or industrial uses may also attract heavy-duty vehicle trips, idling, and/or loading activities that emit diesel or other exhaust pollutants. CARB considers "high-volume roadways" as those that have traffic in excess of 100,000 vehicles on an average day (per California Public Resources Code Section 21151.8).[14] Truck emissions are also more likely to be concentrated along the City's designated truck routes, including portions of Highway 1, Highway 68, Highway 218, Del Monte Avenue, Fremont Street, Pacific Street, Munras Avenue/Abrego Street, Washington Street, Franklin Street, Tyler Street, Lighthouse Avenue, Foam Street, David Avenue.

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[13] United States Environmental Protection Agency, AirToxScreen Mapping Tool, Air Toxics Screening Assessment, Last Updated May 2, 2023, https://experience.arcgis.com/experience/a2eea9c204004158a85a18371d6883bc.

[14] California Air Resources Board Research Division, Technical Advisory: Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways, California Environmental Protection Agency, April 2017, https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.

Table 3.3-2: Existing Stationary Sources and Emissions within the Planning Area

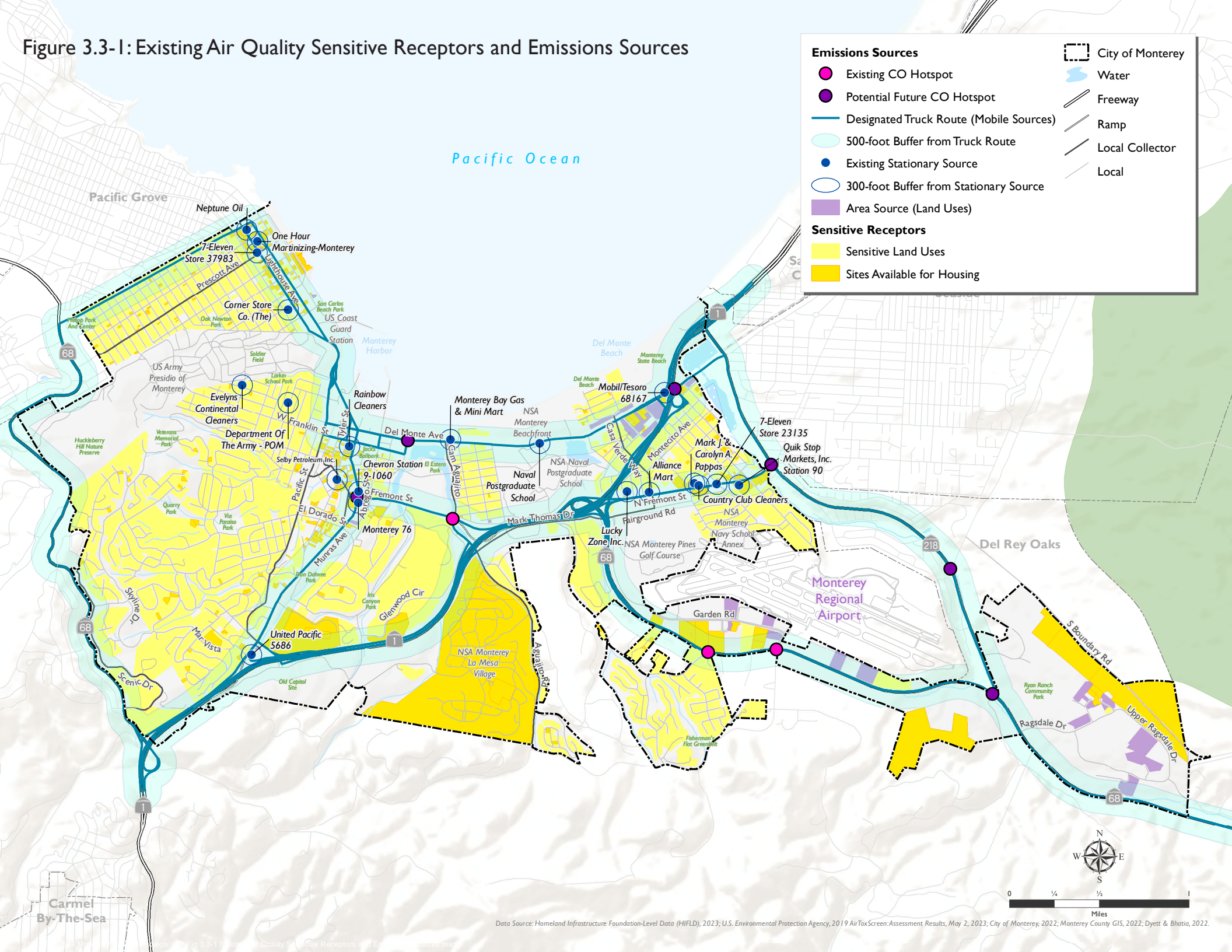
Facility Name	*2019 Facility Emissions (tons)*	
	Tetrachloroethylene	*Benzene*
7-Eleven Store 23135	-	0.003
7-Eleven Store 37983	-	0.006
Alliance Mart	-	0.004
Chevron Station 9-1060	-	0.007
The Corner Store Co.	-	0.004
Country Club Cleaners	1.288	-
Department of the Army – POM	-	0.001
Evelyn's Continental Cleaners	0.508	-
Lucky Zone Inc.	-	0.002
Mark J. & Carolyn A. Pappas	-	0.001
Mobil/Tesoro 68167	-	0.010
Monterey 76	-	0.004
Monterey Bay Gas & Mini Mart	-	0.002
Naval Postgraduate School	-	0.003
Neptune Oil	-	0.003
One Hour Martinizing-Monterey	1.561	-
Quick Stop Markets, Inc. Station 90	-	0.003
Rainbow Cleaners	0.644	-
Selby Petroleum Inc.	-	0.002
United Pacific 5686	-	0.009

Source: U.S. Environmental Protection Agency, 2019 AirToxScreen: Assessment Results, May 2, 2023, https://www.epa.gov/AirToxScreen/2019-airtoxscreen-assessment-results.

The City identifies "major thoroughfares," which are roadways that carry through traffic and provide a network connecting to the State highway system, within its transportation network in its Circulation Element. These major thoroughfares complement the Transportation Agency for Monterey County's Congestion Management Plan and include:

- Foam Street, from Lighthouse Avenue to City Limit
- Lighthouse Avenue, from Washington Street to City Limit
- Del Monte Avenue, from Washington Street to City Limit
- Fremont Street, from Camino Aguajito to Abrego Street
- North Fremont Street, from City Limit to Highway 68 (Monterey-Salinas Highway)
- Munras Avenue/Abrego Street, from Fremont Street to Via Zaragoza

Figure 3.3-1: Existing Air Quality Sensitive Receptors and Emissions Sources



Data Source: Homeland Infrastructure Foundation-Level Data (HIFLD), 2023; U.S. Environmental Protection Agency, 2019 AirToxScreen: Assessment Results, May 2, 2023; City of Monterey, 2022; Monterey County GIS, 2022; Dyett & Bhatia, 2022.

An increase in vehicle trips associated with population and employment growth under the Proposed Plan may exacerbate existing TAC emissions sources and CO hotspots or lead to new ones. For example, motor vehicles may spend more time idling at intersections or road segments that experience heavy traffic and/or delays, as measured by peak-hour volume-to-capacity (V/C) ratios,[15] concentrating local levels of PM, diesel, and CO from vehicular emissions. According to MBARD CEQA Air Quality Guidelines and the California Department of Transportation's (Caltrans') CO Protocol, urban street canyons and intersections or road segments near stationary sources of CO where the project would generate substantial traffic or areas with substantial heavy-duty truck traffic should also be studied. Based on the vehicle miles traveled (VMT) modeling conducted for the Proposed Plan, the V/C ratio at three of the ten intersections studied in the Planning Area currently indicates that volume exceeds capacity, including:

- Josselyn Canyon Road/Highway 68
- Olmsted Road/Highway 68
- Camino Aguajito/Aguajito Road/Fremont Street

Additionally, according to VMT modeling, projected V/C ratios indicate that congestion would worsen compared to existing conditions at nine of the ten intersections in the future, with or without the Proposed Plan. Under the Proposed Plan, these would include:

- Camino El Estero/Del Monte Avenue
- Abrego Street/Fremont Street
- English Avenue/Del Monte Avenue
- Canyon Del Rey Boulevard-Highway 218/Fremont Street
- Josselyn Canyon Road/Highway 68
- Olmsted Road/ Highway 68
- Monterra Road/Highway 218/Highway 68
- Canyon Del Rey Boulevard-Highway 218/General Jim Moore Boulevard
- Camino Aguajito/Aguajito Road/Fremont Street

In addition, air and maritime activities associated with the Monterey Regional Airport, U.S. Navy properties, and the harbor are also potential sources of TACs. There are no existing or proposed railways in the Planning Area. Figure 3.3-1 shows the existing mobile sources in the Planning Area.

Locations of Sensitive Receptors

Sensitive land uses are defined as locations where human populations, especially children, seniors, and sick persons are located and where there is reasonable expectation of continuous human exposure according to the averaging period for the air quality standards (i.e., 24-hour or 8-hour). Typical sensitive land uses include residences, hospitals, and schools. Parks and playgrounds, where sensitive receptors (e.g., children and seniors) are present may also be considered sensitive land uses.

[15] MBARD's recommended screening methodology for CO hotspots and the California Department of Transportation CO Protocol use level-of-service (LOS) metrics to identify potential CO hotspots. V/C ratios are used to identify locations where vehicle idling, congestion, and delay may lead to increased air pollution.

The principal land uses in the Planning Area are residential, commercial, industrial, parks and open space, and public/semi-public (military). Detached single-family homes are the most dominant development within the city, and residential neighborhoods are generally clustered east of Pacific Street and south of Lighthouse Avenue, between the NSA Monterey Naval Postgraduate School and El Estero Park, south of Highway 68 and east of Sylvan Road, and in the eastern portion of the city on both sides of North Fremont Street. Other potential places in the Planning Area where sensitive receptors may gather include schools and parks that are distributed throughout the Planning Area, typically close to residential areas. These sensitive receptors are most likely to be exposed to air pollutants and TACs in areas where they interface with concentrations of commercial and industrial uses; areas bordering commercial or industrial uses include along Lighthouse Avenue, Pacific Street, Munras Avenue/Abrego Street, Del Monte Avenue, and North Fremont Street.

Regional Attainment Status

Local monitoring data are used to designate areas as nonattainment, maintenance, attainment, or unclassified for the ambient air quality standards, as defined below. Table 3.3-3 summarizes the attainment status of Monterey County; the only pollutant for which Monterey County has nonattainment status is PM_{10}.

- Nonattainment: assigned to areas where monitored pollutant concentrations consistently violate the standard in question.
- Maintenance: assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard.
- Attainment: assigned to areas where pollutant concentrations meet the standard in question over a designated period of time.
- Unclassified: assigned to areas where data are insufficient to determine whether a pollutant is violating the standard in question.

Table 3.3-3: Ambient Air Quality Attainment Status for Monterey County portion of the NCCAB

Criteria Pollutant	*Federal Designation*	*State Designation*
Ozone (8-hour)	Unclassified/Attainment	Attainment
Carbon Monoxide (CO)	Unclassified/Attainment	Attainment
Particulate Matter (PM_{10})	Unclassified	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Unclassified/Attainment	Attainment
Nitrogen Dioxide (NO_2)	Unclassified/Attainment	Attainment
Sulfur Dioxide (SO_2)	Unclassified/Attainment	Attainment
Lead	Unclassified/Attainment	Attainment
Sulfates	(No Federal Standard)	Attainment
Hydrogen Sulfide	(No Federal Standard)	Unclassified
Visibility Reducing Particles	(No Federal Standard)	Unclassified

Sources: California Air Resources Board, Area Designations for Ambient Air Quality Standards, 2022, https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations.

Regulatory Setting

Air quality in the project area is regulated through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, planning, policymaking, education, and a variety of programs. The agencies responsible for improving the air quality within the air basin are discussed below.

FEDERAL REGULATIONS

Clean Air Act and National Ambient Air Quality Standards

The EPA is responsible for implementing national air quality programs, as governed by the federal Clean Air Act, which was first enacted in 1963 and most recently amended in 1990. The Clean Air Act establishes primary and secondary NAAQS for the six criteria air pollutants [ozone, CO, NO_2, SO_2, Particulate Matter (PM_{10} and $PM_{2.5}$), and lead] discussed in the Environmental Setting section; the NAAQS are shown in Table 3.3-4. The primary standards protect public health and the secondary standards protect public welfare. The Clean Air Act also requires each state to prepare a state implementation plan (SIP) for attaining and maintaining the NAAQS. States with nonattainment areas must revise their SIPs to incorporate additional control measures to reduce air pollution. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the Clean Air Act and its amendments, and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, EPA may prepare a federal implementation plan that imposes additional control measures. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

Corporate Average Fuel Economy (CAFE) Standards

The National Highway Traffic Safety Administration (NHTSA) Corporate Average Fuel Economy (CAFE) standards require substantial improvements in fuel economy and reductions in emissions of criteria air pollutants and precursors, as well as greenhouse gases, from vehicles sold in the United States. The CAFE standards regulate how far vehicles must travel on a gallon of fuel, with standards for light-duty vehicles (passenger cars and light trucks) and separately for medium- and heavy-duty trucks and engines. The light-duty vehicle fuel economy standards are established for model years through 2026, and standards for model years 2027-2032 were proposed on July 28, 2023. Heavy-duty vehicle standards are established for model years through 2027, and proposed standards apply to model years 2030-2035 (with 2027 standards applying to interim model years). In accordance with the National Environmental Policy Act (NEPA), NHTSA released the Draft Environmental Impact Statement for public comment in September 2023. If finalized, the proposal would require an industry fleet-wide average of approximately 58 miles per gallon for passenger cars and light trucks in model year 2032, by increasing fuel economy by two percent year-over-year for passenger cars, four percent year-over-year for light trucks, and 10 percent year-over-year for heavy-duty pickup trucks and vans.

The proposal is intended to provide gas cost savings, conserve energy, and provide flexibility to industry using available fuel-saving technologies.[16]

Table 3.3-4: National and California Ambient Air Quality Standards

Criteria Pollutant	*Average Time*	*California Standards*	*National Standards* [a]	
			Primary	*Secondary*
Ozone	1-hour	0.09 ppm	None [b]	None [b]
	8–hour	0.070 ppm	0.070 ppm	0.070 ppm
Particulate Matter (PM_{10})	24-hour	50 μg/m³	150 μg/m³	150 μg/m³
	Annual mean	20 μg/m³	None	None
Fine Particulate Matter ($PM_{2.5}$)	24-hour	None	35 μg/m³	35 μg/m³
	Annual mean	12 μg/m³	12.0 μg/m³	15 μg/m³
Carbon Monoxide (CO)	8-hour	9.0 ppm	9 ppm	None
	1-hour	20 ppm	35 ppm	None
Nitrogen Dioxide (NO_2)	Annual mean	0.030 ppm	0.053 ppm	0.053 ppm
	1-hour	0.18 ppm	0.100 ppm	None
Sulfur Dioxide [c] (SO_2)	Annual mean	None	0.030 ppm	None
	24-hour	0.04 ppm	0.014 ppm	None
	3-hour	None	None	0.5 ppm
	1-hour	0.25 ppm	0.075 ppm	None
Lead	30-day Average	1.5 μg/m³	None	None
	Calendar quarter	None	1.5 μg/m³	1.5 μg/m³
	3-month average	None	0.15 μg/m³	0.15 μg/m³
Sulfates	24-hour	25 μg/m³	None	None
Visibility-reducing Particles	8-hour	–[d]	None	None
Hydrogen Sulfide (H_2S)	1-hour	0.03 ppm	None	None
Vinyl Chloride	24-hour	0.01 ppm	None	None

[16] National Highway Traffic Safety Administration, "Corporate Average Fuel Economy," U.S. Department of Transportation, last updated September 28, 2023, accessed November 21, 2023, https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy.

Table 3.3-4: National and California Ambient Air Quality Standards

Criteria Pollutant	*Average Time*	*California Standards*	*National Standards* [a]	
			Primary	*Secondary*

Notes:

a. National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment.

b. The federal 1-hour standard of 12 parts per hundred million was in effect from 1979 through June 15, 2005. The revoked standard is referenced because it was employed for such a long period and is a benchmark for SIPs.

c. The annual and 24-hour NAAQS for SO2 only apply for 1 year after designation of the new 1-hour standard to those areas that were previously in nonattainment for 24-hour and annual NAAQS.

d. CAAQS for visibility-reducing particles is defined by an extinction coefficient of 0.23 per kilometer—visibility of 10 miles or more due to particles when relative humidity is less than 70 percent.

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

Source: California Air Resources Board, Ambient Air Quality Standards, 2016, https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf.

Emission Standards for On-road Heavy-Duty Vehicles

In December 2000, EPA signed the Heavy-Duty Highway Program, which established a series of increasingly strict emission standards for new heavy-duty highway engines. In December 2022, EPA finalized the Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards, part of the Clean Trucks Plan (consistent with President Biden's Executive Order 140937) to further reduce air pollution from heavy-duty engines and vehicles by establishing new, more stringent emission standards that apply to a wider range of heavy-duty engine operating conditions and must be met for a longer period of when these engines operate on the road. The final rulemaking sets new numeric standards and changes key provisions of the existing heavy-duty emission control program to reduce emissions of NOx, PM, hydrocarbons, CO, and TACs from heavy-duty engines beginning no later than model year 2027. EPA estimates that the final rule will reduce NOx emissions from heavy-duty vehicles in 2040 by more than 40 percent and almost 50 percent by 2045, with corresponding decreases in ambient concentrations of pollutants such as ozone and PM2.5.17

Emission Standards for Off-Road Diesel Engines

EPA has adopted multiple tiers of emission standards that regulate all new nonroad (off-road) diesel engines used in machines such as excavators and other construction equipment; farm tractors and other agricultural equipment; forklifts; airport ground service equipment; and generators, pumps, compressors, and other utility equipment. Tier 1 standards were phased in on newly manufactured

[17] Control of Air Pollution From New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards, 88 Fed. Reg. 4296 (January 24, 2023) (to be codified at 40 CFR Parts 2, 59, 60, 80, 85, 86, 600, 1027, 1030, 1031, 1033, 1036, 1037, 1039, 1042, 1043, 1045, 1048, 1051, 1054, 1060, 1065, 1066, 1068, and 1090). https://www.govinfo.gov/content/pkg/FR-2023-01-24/pdf/2022-27957.pdf

equipment from model years 1996 through 2000, Tier 2 standards apply to model years 2001 through 2006, and Tier 3 standards apply to model years 2006 through 2008. Tier 4 standards, which integrate engine and fuel controls as a system to gain the greatest emission reductions and require manufacturers to produce engines with advanced emission-control technologies, were phased in from model years 2008 through 2015 and apply to all model years thereafter. To prevent damage to emission control devices by sulfur, EPA has also adopted requirements for in-use diesel fuel to decrease sulfur levels (Ultra Low Sulfur Diesel Fuel) by more than 99 percent, with a maximum sulfur concentration of 15 parts per million.

Hazardous Air Pollutants and Toxic Air Contaminants

TACs, federally referred to as hazardous air pollutants (HAPs), are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. A wide range of sources, from industrial plants to motor vehicles, emit TACs. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage; or short-term acute affects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

For evaluation purposes, TACs are separated into carcinogens and non-carcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. This contrasts with criteria air pollutants for which acceptable levels of exposure can be determined and for which the ambient standards have been established (Table 3.3-4). Cancer risk from TACs is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure. EPA and CARB regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum available control technology or best available control technology for air toxics to limit emissions.

The Toxic Substances Control Act of 1976 ("TSCA," 15 USC §2601 et seq.) provides EPA with the authority to require reporting, record-keeping and testing requirements, and restrictions addressing production, importation, use, and disposal of specific chemicals including PCBs, asbestos, radon, and lead-based paint. The TSCA was updated by the Frank R. Lautenberg Chemical Safety Act of the 21st Century in 2016, requiring additional enforcement measures, risk-based chemical assessments, increased public transparency, and more consistent funding. Demolition and/or renovation activities are subject to the National Emission Standards for Hazardous Air Pollutants ("NESHAP," 40 CFR Part 63), as required by the federal Clean Air Act Amendments. For example, demolition of existing facilities that contain asbestos would be subject to the asbestos NESHAP regulations to protect the public by minimizing the release of asbestos fibers during activities involving the processing, handling, and disposal of ACM.

EPA also addresses certain HAPs and common sources through specific regulations, such as the Residential Lead-Based Paint Hazard Reduction Act of 1992, which built on the 1971 prohibition of lead-based paint in federally funded, built, or rehabilitated residential structures and cooking,

drinking, or eating utensils (42 USC Ch. 63, §4831). Under these laws, homes and child-occupied facilities such as day care centers and kindergartens built prior to 1978 are subject to additional requirements to prevent lead-based poisoning. Lead is also regulated by the TSCA and NESHAPs for primary and secondary lead smelting as well as other NESHAPs that control lead that is emitted along with other HAPs.

STATE REGULATIONS

California Clean Air Act and California Ambient Air Quality Standards

In 1988, the state legislature adopted the California Clean Air Act, which established a statewide air pollution control program. Under this act, all air districts in the state are required to meet the CAAQS by the earliest practical date, with increasingly stringent requirements for areas that require more time to achieve the standards (rather than by precise attainment deadlines). The CAAQS are generally more stringent than the NAAQS and incorporate additional standards for sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride. The CAAQS and NAAQS are listed together in Table 3.3-4. CARB and regional air districts bear responsibility for achieving California's air quality standards. The standards are to be achieved through district-level air quality management plans, which are incorporated into the SIP. In California, EPA has delegated authority to prepare SIPs to CARB, which, in turn, has delegated that authority to individual air districts, such as MBARD. CARB has traditionally established state air quality standards, maintained oversight authority for air quality planning, developed programs for reducing emissions from motor vehicles, developed air emissions inventories, collected air quality and meteorological data, and approved SIPs.

The California Clean Air Act substantially increases the authority and responsibilities of air districts by designating air districts as lead air quality planning agencies, requiring air districts to prepare air quality plans, and granting air districts the authority to implement transportation control measures. The act also emphasizes control over "indirect and area-wide sources" of air pollutant emissions, giving local air pollution control districts explicit authority to regulate indirect sources and establish air toxic control measures.

Airborne Toxic Control Measures

CARB has developed multiple airborne toxic control measures (ATCMs), which are codified in the California Code of Regulations, to reduce air emissions from TAC emissions sources that adversely affect public health. The ATCMs focus on reducing emissions from on- and off-road mobile sources—such as school buses, solid waste collection vehicles, diesel-powered portable engines, transport refrigeration units, port and intermodal rail yard equipment, and ocean-going vessels—as well as stationary sources – such as gas stations, dry cleaners, medical waste incinerators, construction and grading operations, metal melting, and chrome plating shops, automobile service shops, and others.

Low-Emission Vehicle Program

CARB adopted the first Low-Emission Vehicle (LEV) regulations in 1990 (now referred to as the LEV I regulations), requiring manufacturers to introduce progressively cleaner light- and medium-

duty vehicles for model years 1994 through 2003. LEV I included tiers of increasingly more stringent exhaust emissions standards for low-emission vehicles, a mechanism for requiring manufacturers to phase in a progressively cleaner mix of vehicles year-over-year, and a requirement that a specific percentage of passenger cars and light-duty trucks be zero-emission vehicles with no exhaust or evaporative emissions. In 2012, CARB adopted the LEV III regulations as part of the Advanced Clean Cars rulemaking package, which also includes the state's zero-emission vehicle regulation, to establish increasingly stringent emission standards for criteria pollutants and greenhouse gases for new passenger vehicles through the 2025 model year.[18]

Toxic Air Contaminant Regulation

The California Health and Safety Code defines TACs as air pollutants that may cause or contribute to an increase in mortality or an increase in serious illness or that may pose a present or potential hazard to human health. CARB has formally identified over 200 substances and groups of substances as TACs.[19] Direct exposure to these pollutants has been shown to cause cancer, birth defects, damage to the brain and nervous system, and respiratory disorders. California regulates TACs primarily through AB 1807 (the Toxic Air Contaminant Identification and Control Act, otherwise known as the "Tanner Act") and AB 2588 (the Air Toxics Hot Spots Information and Assessment Act of 1987, or "Hot Spots Act"). AB 1807 created California's program to reduce exposure to air toxics, whereby the California OEHHA is required to develop guidelines that provide the scientific basis for the values used to assess the health risks of emissions exposure from facilities and new sources.[20] AB 2588 supplements this program by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks.

Off-Road Diesel Vehicle Regulation

On November 17, 2022, CARB approved amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation (Off-Road Regulation) (initially adopted in 2007) to further reduce emissions from all diesel-fueled equipment or alternative-fuel diesel equipment with a compression-ignition engine greater than 25 horsepower (e.g., tractors, bulldozers, backhoes) as well as dual-fuel equipment. The amendments, which will phase in starting in 2024 through 2036, will require fleets to phase out use of the oldest and highest polluting off-road diesel vehicles in California, prohibit the addition of high-emitting vehicles to a fleet, and require use of R99 or R100 renewable diesel in off-road diesel vehicles used in construction, mining, industrial operations, and other industries. CARB expect that the amendments will generate additional reductions in over 31,000 tons of NOx and more than 2,700 tons of $PM_{2.5}$ from 2024 through 2038 – half of which are expected within the first five years of implementation (by 2029).

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[18] California Air Resources Board, "Low-Emission Vehicle Program," accessed November 22, 2023, https://ww2.arb.ca.gov/our-work/programs/low-emission-vehicle-program/about.

[19] California Air Resources Board, "CARB-Identified Toxic Air Contaminants," accessed November 22, 2023, https://ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants

[20] Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments, February 2015, https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

CARB Air Quality and Land Use Guidance

In 2005, CARB published the Air Quality and Land Use Handbook, which is intended to encourage local land use agencies to consider health risks from air pollution before approving new sensitive receptor sites (such as homes or day care centers). Adverse air quality impacts may be overlooked when siting new sensitive receptors because such projects do not need air quality permits as industrial or stationary sources of air pollution are required to obtain. CARB makes "advisory" siting recommendations (i.e., buffer distances) for new sensitive land uses near freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing stations, as excerpted below:

- **Freeways and High-Traffic Roads.** Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day.
- **Dry Cleaners using Perchloroethylene.** Avoid siting new sensitive land uses within 300 feet of any dry-cleaning operation. For operations with two or more machines, provide 500 feet. For operations with three or more machines, consult with the local air district.
- **Gasoline Dispensing Facilities.** Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities.[21]

These recommendations were established based on data showing that localized air pollution exposures can be reduced by as much as 80 percent with the recommended separation; however, local agencies should consider conducting site-specific studies about potential health risks and balancing land use decisions to meet housing and climate objectives, among other goals, as appropriate.

LOCAL REGULATIONS

Monterey Bay Air Resources District

At the local level, responsibilities of air quality districts include overseeing stationary-source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality–related sections of environmental documents required by the California Environmental Quality Act (CEQA). The air quality districts are also responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws and for ensuring that NAAQS and CAAQS are met. The Proposed Plan falls under the jurisdiction of MBARD, which has local air quality jurisdiction over projects in the NCCAB including Monterey County.

[21] California Air Resources Board, Air Quality and Land Use Handbook: A Community Health Perspective [Table 1-1], April 2005, https://files.ceqanet.opr.ca.gov/221458-6/attachment/UNr-g159CW-r0G4DR8q6daNdAKT3RJTd8gGQCfz4wqFfl-eNdZNQEqjf8tfls1x6Gsae7YqpXwtFIZBd0.

Air Quality Management Plan

MBARD has also adopted air quality management plans (AQMPs) toward meeting CAAQS, the most recent of which was the 2016 AQMP, adopted in March 2017, that updates the prior AQMP (the 2012 Triennial Plan) based on a review of air quality trends analysis, emissions inventory, and mobile source programs between 2012-2015.[22] The 2016 AQMP reports only on the attainment of the ozone CAAQS, for which the NCCAB was in nonattainment or nonattainment-transitional status until 2020. As shown in Table 3.3-3, the NCCAB has maintained attainment for ozone CAAQS since 2020. The NCCAB has been in attainment of the NAAQS for ozone since 2012, including after the national standard was revised in 2015.

The 2016 AQMP update builds on information developed in past AQMPs to document MBARD's progress toward attaining the ozone CAAQS (for which the basin was in nonattainment at the time of adoption); therefore, some sections of the 2008 AQMP and 2012 Triennial Plan are incorporated by reference for elements that have not been updated. As such, the 2016 AQMP does not specifically include control measures. In fact, findings from the 2016 AQMP report that control measures have not been implemented or have been marginally effective since 2008, and MBARD has committed to further evaluating control measures for the next update of the AQMP. Instead, the 2016 AQMP focuses on regional planning strategies as a means of making progress toward attaining the 8-hour ozone standard – specifically, through grant programs that will reduce ROG and NOx emissions by offering incentives to reduce emissions from transportation sources, marine vessels, agricultural irrigation pumps, and vehicles. Key programs and rules identified in the 2016 AQMP that have and are anticipated to continue reducing emissions while population increases include: CARB's Low Emission Vehicle Program, CARB's Off-Road Motor Vehicle Program, CARB's Advanced Clean Cars Program, Pavley Fuel Standards (AB 1493), Rule 432 (Emissions from Electric Power Boilers), Rule 1002 (Transfer of Gasoline into Vehicle Fuel Tanks, and Rule 426 (Architectural Coatings).

In addition, MBARD recognizes the importance of regional efforts in reducing regional pollutants. These efforts include regional land use and transportation planning, such as under SB 375 (Sustainable Communities Act of 2008) (described further below), and other greenhouse gas emissions reductions regulations and programs that help reduce mobile and area source emissions.

Senate Bill 656 Implementation Plan

In 2005, MBARD prepared a report on the attainment of the California PM Standards in the NCCAB to fulfill the requirements of SB 656 to reduce public exposure to particulate matter. As shown in Table 3.3-3, the NCCAB is an attainment area for $PM_{2.5}$ but is a nonattainment area for PM_{10}. However, until SB 656 was adopted in 2003, there was no requirement for local air districts in nonattainment to adopt control measures to make progress toward achieving the CAAQS for PM_{10}. As such, MBARD prepared the SB 656 Implementation Plan separately from the AQMP with a list of the most readily available, feasible, and cost-effective control measures that could be implemented by the air district to reduce ambient levels of PM. There are 13 control measures included in the 2005 report, such as agricultural best management practices focused on agricultural tilling and unpaved roads, grant incentive programs for implementing PM_{10} fugitive dust control measures,

[22] Monterey Bay Air Resources District, 2012-2015 Air Quality Management Plan, Adopted on March 15, 2017, https://www.mbard.org/files/6632732f5/2012-2015-AQMP_FINAL.pdf.

mineral processing and cement manufacturing best management practices, an ACTM for naturally occurring asbestos, and an ATCM for agricultural pumps.[23]

District Rules and Regulations

In addition, MBARD also adopts rules and regulations to improve existing and future air quality. The Proposed Plan may be subject to the following district rules.

- **Regulation 2, Permits (Rules 200-220).** This regulation establishes the procedures, standards, and requirements for review and permit issuance for air pollution sources and control equipment toward attaining and maintaining the NAAQS and CAAQS under the federal Clean Air Act and California Clean Air Act. Rules that are most relevant to the Proposed Plan include: 200 (Permits Required), 207 (Review of New or Modified Sources), 213 (Continuous Emissions Monitoring), 216 (Permit Requirements for Wastewater and Sewage Treatment Facilities), 217 (Annual Review of Permits), 218 (Title V: Federal Operating Permits), and 220 (Agricultural Diesel Engine Registration).
- **Regulation 4, Prohibitions (Rules 400-441).** This regulation establishes the requirements and standards that limit air pollutant emissions from various operations and stationary sources. Rules that are most relevant to the Proposed Plan, by the pollutant type addressed, include:
  - **Particulate Matter and general air pollution:** 403 (Particulate Matter), 423 (New Source Performance Standards), 438 (Open Outdoor Fires), 436 (Title V: General Prohibitory Rule)
  - **Ozone Precursors (ROGs/VOCs, NOx):** 404 (Sulfur Compounds and Nitrogen Oxides), 416 (Organic Solvents), 425 (Use of Cutback Asphalt), 426 (Architectural Coatings), 429 (Applications of Nonarchitectural Coatings), 433 (Organic Solvent Cleaning), 434 (Coating of Metal Parts and Products), 441 (Boilers, Steam Generators, and Process Heaters)
  - **Toxic Air Contaminants (Diesel, Asbestos, Lead):** 418 (Transfer of Gasoline into Stationary Storage Containers), 439 (Building Removals), 424 (National Emissions Standards for Hazardous Air Pollutants)
  - **Odors:** 402 (Nuisances)
- **Regulation 10, Toxic Air Contaminants (Rules 1000-1010):** This regulation outlines guidance for evaluating and controlling TAC emissions and their potential health risks. Rules that are most relevant to the Proposed Plan include: 1000 (Permit Guidelines and Requirements for Sources Emitting Toxic Air Contaminants), 1002 (Transfer of Gasoline into Vehicle Fuel Tanks), 1003 (Air Toxics Emissions Inventory and Risk Assessments), 1008 (Air Toxic Control Measures), 1009 (Burning of Treated Wood), 1010 (Air Toxic Control Measure for Stationary Compression Ignition Engines).

[23] Monterey Bay Air Resources District, 2005 Report on Attainment of the California Particulate Matter Standards in the Monterey Bay Region, [Senate Bill 656 Implementation Plan], December 1, 2005, https://www.mbard.org/files/b0f496297/358+%281%29.pdf.

CEQA Guidance

In 2008, MBARD developed CEQA Air Quality Guidelines in alignment with California's SIP for the NCCAB (1994 Maintenance Plan and Contingency Control Measures for the Monterey Bay Region). The CEQA Air Quality Guidelines includes recommended screening processes and advisory emission thresholds for criteria air pollutants and health-based risk thresholds for TACs to assist CEQA lead agencies in determining the level of significance (for significance criteria and regulatory requirements/guidance current to February 2008) of a project's emissions.[24] These thresholds are shown in Table 3.3-6. It is noted that because the MBARD CEQA Air Quality Guidelines were developed in 2008, some of the referenced standards and guidance are no longer applicable. For example, the CO screening procedure refers to LOS standards that are no longer used for CEQA transportation impact analysis per SB 743. Alternative methods based on State (e.g., CARB and Caltrans' CO Protocol) guidance have been supplemented as applicable.

MBARD has also adopted Guidelines for Implementing the California Environmental Quality Act (henceforth referred to as the "CEQA Implementation" document), last revised in February 2016, that outlines the district's approach to implementing CEQA when MBARD is the lead agency. This document includes air quality thresholds of significance that are recommended for CEQA review of projects, including plans, within the NCCAB. The criteria pollutant emissions thresholds are based on the offset requirements in Rule 207 (Review of New or Modified Sources), while air toxics thresholds are based on current rules and regulations (i.e., Rules 1000 and 1003) used to evaluate human health impacts from toxics. A proposed project will not have a significant air quality effect on the environment if the criteria (described under the Significance Criteria section below) are met.

Association of Monterey Bay Area Governments

The Association of Monterey Bay Area Governments (AMBAG) is the metropolitan planning organization and council of governments for the Monterey Bay Area that performs regional transportation planning and manages the region's transportation demand model in coordination with regional transportation planning agencies, transit providers, and other stakeholders and organizations with interest in or responsibility for transportation planning and programming across San Benito, Santa Cruz, and Monterey counties. AMBAG also prepares regional housing, population, and employment forecasts that are utilized in a variety of regional plans, including the 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), in compliance with SB 375. The Final 2045 MTP/SCS and Final 2022 Regional Growth Forecast were adopted in June 2022. Since December 2010, AMBAG no longer provides consistency determinations for air quality; however, MBARD uses the growth projections from the MTP/SCS to prepare the emission inventory of the AQMP. The 2016 AQMP uses the 2014 Regional Growth Forecast prepared by AMBAG. Table 3.3-5 shows the subregional population, housing, and employment forecasts for Monterey in 2030 and 2035 from both the 2014 and 2022 Regional Growth Forecasts. In general, AMBAG projects that the City of Monterey will represent a smaller

[24] Monterey Bay Area Air Resources District, CEQA Air Quality Guidelines, Adopted October 1995, Last Revised February 2008, https://www.mbard.org/files/0ce48fe68/CEQA+Guidelines.pdf.

share of Monterey County's population and housing over time through 2035, while the city's share of countywide employment will increase slightly.[25]

Table 3.3-5: Subregional Population, Housing, and Employment Forecasts for Monterey

	2014 Regional Growth Forecast		*2022 Regional Growth Forecast*	
Geography	*2030*	*2035*	*2030*	*2035*
Population				
AMBAG Region	856,000	885,000	824,992	842,189
Monterey County	479,487	495,086	467,068	476,028
City of Monterey	29,743	30,647	28,650 [a]	29,032 [a]
Percent county share	*6.2%*	*6.2%*	*6.1%*	*6.1%*
Housing Units				
AMBAG Region	295,936	303,245	288,386	296,352
Monterey County	154,585	157,992	153,852	159,100
City of Monterey	13,750	14,001	13,920 [b]	14,209 [b]
Percent county share	*8.9%*	*8.9%*	*9.0%*	*8.9%*
Employment				
AMBAG Region	362,900	372,800	418,132	425,845
Monterey County	216,486	222,137	249,613	253,918
City of Monterey	33,597	34,828	42,506	43,452
Percent county share	*15.5%*	*15.7%*	*17.0%*	*17.1%*

Notes:

a. Includes both civilian population and population from the Presidio of Monterey Defense Language Institute (DLI) and Naval Postgraduate School. DLI and Naval Postgraduate School population is projected to remain relatively the same, at 3,421, while the Monterey balance is projected to grow slightly to 25,611 by 2035.

b. Includes housing for both civilian and DLI and Naval Postgraduate School populations. DLI and Naval Postgraduate School housing is projected to remain relatively the same, at 432, while the Monterey balance is projected to grow slightly to 13,777 by 2035.

Source: Association of Monterey Bay Area Governments, 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy Appendix A: 2022 Regional Growth Forecast, 2022; Appendix A: 2014 Regional Growth Forecast, 2014.

[25] Association of Monterey Bay Area Governments, 2014 Regional Growth Forecast Technical Documentation, [2035 Metropolitan Transportation Plan/Sustainable Communities Strategy Appendix A], Adopted June 11, 2014, https://ambag.org/sites/default/files/2019-12/FINAL%20Adopted%20Forecast%20and%20Documentation_0.pdf; Association of Monterey Bay Area Governments, 2022 Regional Growth Forecast Technical Documentation, [2045 Metropolitan Transportation Plan/Sustainable Communities Strategy Appendix A], Adopted June 15, 2022, https://ambag.org/sites/default/files/2022-12/REVISED_PDFAAppendix%20A_2022%20RGF.pdf.

City of Monterey General Plan

The current City of Monterey was adopted in 2005 and last amended in June 2019. Aside from the Housing, Land Use, Safety, and Circulation elements included in the Proposed Plan (2031 General Plan Update), the current General Plan includes goals, policies, and programs that are associated with air quality, excerpted below.

Conservation Element

Goal c. Air Quality: Reduce fixed source and transportation-based air pollution.

> **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.
>
> **Policy c.2.** Consider air quality impacts resulting from proximity of residential, commercial and industrial development in the City's development review process, primarily the California Environmental Quality Act.
>
> **Policy c.3.** Promote cooperation with local and State agencies to develop programs to reduce sources of air pollution.

Monterey City Code

The Zoning Ordinance of the Code of the City of Monterey (Monterey City Code) Section 38-111(C) establishes performance standards regulating odors in all zoning districts such that "no use, process, or activity shall produce objectionable odors that are perceptible without instruments by a reasonable person at the property lines of a site."

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if the Proposed Plan would:

Criterion 1: **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;**

Criterion 2: **Conflict with or obstruct implementation of the applicable air quality plan;**

Criterion 3: **Expose sensitive receptors to substantial pollutant concentrations;**

Criterion 4: **Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.**

This section presents the emission thresholds that can be used to evaluate the significance level of the primary pollutants of concern discussed in the Environmental Settings section, as well as thresholds and guidance for evaluating potential odors associated with the Proposed Plan.

Local Air District Thresholds

Both MBARD's CEQA Air Quality Guidelines and CEQA Implementation documents provide recommendations for determining the significance of air quality impacts from a project. Given that both documents use similar criteria, the thresholds from the CEQA Implementation document are used because it is more recently updated (2016, compared to 2008) and therefore better reflects current regulations and best practices. Consistency with 2016 AQMP (Criterion 2) is qualitatively determined based on alignment of policy objectives, in addition to quantitative evaluation based on consistency with AMBAG's 2014 Regional Growth Forecasts that are accounted for in the 2016 AQMP's emissions inventory. Odor impacts (Criterion 4) are also assessed qualitatively, based on consistency with applicable regulations, due to the lack of project-specific information associated with the Proposed Plan.

Project-generated emissions analyzed under Criteria 1 and 3 are generally evaluated using quantitative approaches. MBARD suggests that the Proposed Plan would have a less-than-significant air quality impact if project-generated criteria pollutant emissions from construction (including exhaust and fugitive dust) and operation (including all mobile, area, and stationary sources) would be less than the emissions thresholds shown in Table 3.3-6. In particular, the Proposed Plan should not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment (i.e., PM_{10}, as shown in Table 3.3-3), and ultimately, should not cause or contribute to a violation of any CAAQS or NAAQS shown in Table 3.3-4. Finally, the Proposed Plan should not exceed MBARD's adopted health risk public notification thresholds, meaning that project-generated TAC emissions would not exceed a hazard index of 1.0 for acute or chronic impacts and would not exceed a cancer risk of 10 in one million.

Lead agencies must consider, using quantitative analysis whenever possible, both primary (construction, stationary, and mobile source) and secondary (indirect or growth-inducing) impacts of a project. The Proposed Plan is quantitatively evaluated based on the operation of anticipated land use and transportation changes, in addition to policies that help reduce operational emissions from area-wide stationary and mobile sources. Construction-related emissions cannot feasibly be quantified due to lack of project-level information at this time; however, potential and reasonably foreseeable impacts due to construction of projects that may occur as a result of the Proposed Plan are qualitatively assessed for significance. Future individual projects are subject to project-level CEQA review, and projects with emissions in excess of the thresholds shown in Table 3.3-6 would be expected to have a significant cumulative impact on regional air quality because an exceedance of the thresholds is anticipated to contribute to CAAQS and NAAQS violations.

The MBARD's project-level thresholds were developed to analyze emissions generated by a single project, and thus, do not lend well to an evaluation of emissions from a land use plan being evaluated at a programmatic level. Large-scale land use plans that consist of numerous individual projects will, by their nature, produce more criteria pollutants than single projects, even if the plans include efficiency measures to reduce future emissions. Use of the project- level thresholds to evaluate land use plans may therefore unfairly penalize the plans, yielding a significant and unavoidable

conclusion simply due to scale. However, because a comparison to the project-level thresholds is informative to the analysis of the Proposed Plan's impacts to air quality and given the absence of programmatic-level guidance from MBARD, this analysis is based on the provided project-level thresholds.

Table 3.3-6: MBARD Project-Level Air Quality Emissions Thresholds

Pollutant Category/Source	*Pollutant*	*Emissions Threshold*
Criteria Pollutants		
Construction (exhaust and fugitive dust) + Operation (all mobile, area, and stationary project sources)[1]	NOx	137 pounds per day
	ROG	137 pounds per day
	PM_{10}	82 pounds per day
	$PM_{2.5}$	55 pounds per day
	CO	550 pounds per day
Toxic Air Contaminants		
Cancer Risk	Carcinogenic	10 in one million
Acute or Chronic Impacts	Noncarcinogenic	1.0 hazard index[2]

Notes:

1. Same emissions thresholds apply to both construction and operation of the project. Exceedance of the listed emissions thresholds from construction, operation, or the sum of both would be considered a significant impact.
2. MBARD defines non-cancer risk (hazard index) as an indicator of potential health hazard of a substance with regard to its non-cancer effects, where such effects are assumed to not occur if exposure remains below a reference exposure limit (REL). RELs describe acute and chronic exposure limits (i.e., one-hour maximum and annual average concentrations). Specifically, exposure equal to the REL is a hazard index score of 1.0, and a hazard index score of 2.0 means that the concentration of air toxics is two times more than the exposure level that causes adverse health effects. Substances that cause adverse health effects to the same organs are added together to determine hazard index scores.

Sources: Monterey Bay Air Resources District, Guidelines for Implementing CEQA, 2016. https://www.mbard.org/files/7b79ff940/WatermarkRemovedFebruary2016MBUAPCD_CEQA+Implementation+Guidelines%28update+to+1996+document%29.pdf

MBARD prepares the AQMP to attain NAAQS and CAAQS based on regional growth projected by AMBAG, and the AQMP is designed to accommodate and offset emissions due to regional growth through basin-wide controls on stationary, area, and transportation sources of air pollution. According to MBARD, projects related directly to population growth will generate population-related emissions (e.g., motor vehicles, residential heating and cooling emissions). Population-related projects, such as the Proposed Plan, that are consistent with AMBAG's regional forecasts are considered consistent with the AQMP. As discussed in the Regulatory Settings section, the 2016 AQMP incorporates AMBAG's 2014 Regional Growth Forecasts, as shown in Table 3.3-5.

Health-Based Thresholds for Project-Generated Pollutants of Human Health Concern

The California Supreme Court's 2018 decision in *Sierra Club v. County of Fresno* (6 Cal. 5th 502), also known as the Friant Ranch Decision, established that air quality analyses must provide enough detail "for the public to translate the bare [criteria pollutant emissions] numbers provided into adverse health impacts or to understand why such a translation is not possible at this time." The court's decision notes that environmental documents must attempt to connect a project's air quality

impacts to specific health effects or explain why it is not technically feasible to perform such an analysis.

All criteria pollutants generated by the Proposed Plan would be associated with some form of health risk (e.g., asthma, lower respiratory problems). Criteria pollutants can be classified as either regional pollutants or localized pollutants. Regional pollutants can be transported over long distances and affect ambient air quality far from the emissions source. Localized pollutants affect ambient air quality near the emissions source. Ozone is considered a regional criteria pollutant, whereas CO, NO_2, SO_2, and lead are localized pollutants. PM can be both a local and a regional pollutant, depending on its composition. The primary criteria pollutants of concern generated by the Proposed Plan would be ozone precursors (ROG and NO_X), CO, and PM (including diesel). The sections that follow discuss thresholds and analysis considerations for regional and local project-generated criteria pollutants with respect to their human health implications.

Regional Project-Generated Criteria Pollutants

Adverse health effects from regional criteria pollutant emissions, such as ozone precursors and PM, generated by the Proposed Plan are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, the number and character of exposed individuals [e.g., age, gender]). Therefore, ozone precursors (ROG and NO_X) contribute to the formation of ground-level ozone on a regional scale. Emissions of ROG and NO_X generated in an area may not correlate to a specific ozone concentration in that same area. Similarly, some types of PM may be transported over long distances or formed through atmospheric reactions. As such, the magnitude and locations of specific health effects from exposure to increased ozone or regional PM concentrations are the product of emissions generated by numerous sources throughout a region, as opposed to a single individual project. Moreover, exposure to regional air pollution does not guarantee that an individual will experience an adverse health effect. As discussed above, there are large individual differences in the intensity of symptomatic responses to air pollutants. These differences are influenced, in part, by the underlying health condition of an individual, which cannot be known.

OEHHA has conducted epidemiological studies on the health effects of particulate matter in California and is working on additional studies concerning other widespread air pollutants identified in the Clean Air Act. These studies are centered on OEHHA's legislative mandates to ascertain the air pollution constituents most strongly liked to disease and identify subpopulations most vulnerable to the impacts of pollutants. This research, however, has not yet led to conclusive findings that reliably relate project-level source emissions and health risks. Likewise, models and tools, such as the Bay Area Air Quality Management District's (BAAQMD's) Multi-Pollutant Evaluation Method,[26] have been developed to correlate regional criteria pollutant emissions to potential community health impacts but are limited in their applicability to reasonably correlate project-level emissions to specific health consequences. That is, although such models are capable of quantifying ozone and any secondary PM formation and associated health effects, these tools were developed to support regional planning and policy analysis and have limited sensitivity to small changes in criteria pollutant concentrations induced by individual projects. Therefore,

[26] Bay Area Air Quality Management District, Multi-Pollutant Evaluation Method Technical Document, 2016 Update, November 2016, https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/mpem_nov_dec_2016-pdf.pdf.

translating project-generated criteria pollutants to the locations where specific health effects could occur or the resultant number of additional days of nonattainment is not possible with any degree of accuracy.

The technical limitations of existing models (e.g., for correlating project-level regional emissions to specific health consequences) are recognized by air quality management districts throughout the state, including the San Joaquin Valley Air Pollution Control District (SJVAPCD) and South Coast Air Quality Management District (SCAQMD), both of which provided amici curiae briefs in the Friant Ranch litigation. SJVAPCD's brief acknowledged that health risk assessments for localized TACs, such as diesel, are common; however, "it is not feasible to conduct a similar analysis for criteria air pollutants because currently available computer modeling tools are not equipped for this task."[27] The brief further notes that emissions solely from the Friant Ranch Project, which equate to less than 0.1 percent of total NO_X and VOCs in the valley, is not likely to yield valid information and that any such information would not be "accurate when applied at the local level." SCAQMD's brief similar states that "it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels."[28]

As discussed above, air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations as well as attainment or nonattainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. Although recognizing that air quality is a cumulative problem, air districts typically consider projects that generate criteria pollutant and ozone precursor emissions that are below the thresholds to be minor in nature. Such projects would not adversely affect air quality or exceed the NAAQS or CAAQS.

Emissions generated by the Proposed Plan could increase photochemical reactions and the formation of tropospheric ozone and secondary PM, which, at certain concentrations, could lead to increased incidences of specific health consequences. Although these health effects are associated with ozone and particulate pollution, the effects are a result of cumulative and regional emissions. Therefore, the Proposed Plan's incremental contribution cannot be traced to specific health outcomes on a regional scale, and a quantitative correlation of project-generated regional criteria pollutant emissions to specific human health impacts is not included in this analysis. It is foreseeable that unmitigated construction-related and operational emissions of ozone precursors and PM, in excess of the thresholds in Table 3.3-6, could contribute to cumulative and regional health impacts. In such cases, all feasible mitigation would be applied, and emissions would be reduced to the extent possible.

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[27] San Joaquin Valley Air Pollution Control District, Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party in Interest and Respondent, Friant Ranch, L.P., April 13, 2015, https://www.courts.ca.gov/documents/7-s219783-ac-san-joaquin-valley-unified-air-pollution-control-dist-041315.pdf.

[28] South Coast Air Quality Management District, Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and [Proposed] Brief of Amicus Curiae, April 13, 2015, https://www.courts.ca.gov/documents/9-s219783-ac-south-coast-air-quality-mgt-dist-041315.pdf; For example, SCAQMD's analysis of its 2012 Air Quality Attainment Plan showed that the modeled NOx and ROG reductions of 432 and 187 tons per day, respectively, reduced ozone levels by only 9 parts per billion.

Localized Project-Generated Criteria Pollutants and Toxic Air Contaminants

Localized pollutants generated by a project can affect populations near the emissions source. Because these pollutants dissipate with distance, emissions from individual projects can result in direct and material health impacts on adjacent sensitive receptors. In this Draft EIR, the analysis of impacts on human health focuses only on those localized pollutants with the greatest potential to result in a significant, material impact on human health: localized CO, PM (discussed because it is considered both a regional and local pollutant), and TACs (including asbestos, benzene, diesel, lead, and perchloroethylene). This approach is consistent with the current state-of-practice and published guidance by local air districts, California Air Pollution Control Officers Association (CAPCOA), OEHHA, and CARB. Thresholds for each pollutant are identified below.

Carbon Monoxide

Heavy traffic congestion can contribute to high levels of CO, and individuals exposed to such hot spots may have a greater likelihood of developing adverse health effects. As shown in Table 3.3-6, MBARD considers an exceedance of 550 pounds of direct CO emissions per day from area-wide or stationary point sources (e.g., industrial operations) as substantial air emissions that would have a significant impact on local air quality. Figure 3.3-1 shows the locations of industrial and other land uses that may emit substantial air pollutants. Such uses would be regulated by MBARD rules and permits as described in the Regulatory Setting.

Indirect (mobile source) hot spots of CO are expected to be quantitively analyzed for projects that meet project-level screening criteria representing potentially significant impacts, to determine if indirect source emissions would cause an exceedance of NAAQS or CAAQS at existing or reasonably foreseeable receptors. According to MBARD's CEQA Air Quality Guidelines, potentially significant impacts may occur where traffic volume and/or congestion would increase with the project's traffic and thereby potentially cause or contribute to a local CO hot spot. If screening results indicate CO hot spots may occur, quantitative modeling should be conducted. It is noted that four of the five screening criteria are dependent on now-obsolete LOS standards and are no longer appropriate for determining CEQA impacts under SB 743; however, the final criteria (substantial heavy-duty traffic or substantial traffic along urban street canyons or near a major stationary source of CO) remains valid. Localized CO emissions cannot be quantified at this time because sufficient project-specific details are not available for the programmatic Proposed Plan, and as such, the Proposed Plan's potential to expose sensitive receptors to CO hot spots are discussed qualitatively.

Localized Particulate Matter

As presented in Table 3.3-6, MBARD has established project-level emissions thresholds for PM, where direct emissions from construction activities or project operation exceeding 82 pounds of $_{PM10}$ or 55 pounds of $PM_{2.5}$ per day would constitute a significant impact. Although the NCCAB is in nonattainment status for PM_{10}, PM hot-spot analysis is not required in the NCCAB because the basin is an attainment area for $PM_{2.5}$. Furthermore, the Proposed Plan is a programmatic land use plan including the Housing, Land Use, Safety, and Circulation elements of the Monterey General Plan; accordingly, it does not include the types of projects that would require a PM hot-spot analysis, such as new highways and new bus and rail terminals or transfer points that have a significant number of diesel vehicles. It is noted, however, that local concentrations of $PM_{2.5}$ near Monterey

(measured at the Salinas air monitoring station) have at times exceeded the CAAQS, as discussed in the Environmental Settings section (Table 3.3-1). In the absence of project-level data, localized impacts of PM emissions as a result of the Proposed Plan are therefore qualitatively discussed with respect to the Proposed Plan's effect on substantial increases of PM emissions near existing or reasonably foreseeable receptors. Proximity will be determined within 500 feet, based on research findings indicating that people who live, work, or attend school within about 500-600 feet downwind from heavily traveled roadways or along corridors with significant trucking traffic or rail activities appear to have an increased incidence and severity of health problems (e.g., asthma onset and aggravation, cardiovascular disease, reduced lung function, impaired lung development) that may be related to air pollution from roadway traffic.[29]

Toxic Air Contaminants

TACs are categorized as carcinogenic or noncarcinogenic based on the nature of the physiological degradation associated with exposure to the pollutant. Carcinogenic TACs are assumed to have no safe threshold below which health impacts will not occur, while permissible exposure levels are established for noncarcinogenic TACs on a pollutant-by-pollutant basis. Asbestos, benzene, and perchloroethylene are carcinogenic. Diesel has both carcinogenic and noncarcinogenic effects but does not have a threshold below which no significant adverse health effects are anticipated. Inorganic lead is also considered carcinogenic but is more significantly associated with noncancer effects (neurotoxicity, increased blood pressure and related cardiovascular effects); however, it does not have a safe exposure level.

As discussed in the Regulatory Settings section, TACs are addressed by ATCMs, which are locally adopted and enforced by MBARD to reduce exposure below safe exposure levels, if applicable, or otherwise incorporate Best Available Control Technology (BACT) to minimize TAC emissions. MBARD Rule 1000 requires new or modified sources of carcinogenic TACs to install BACT and reduce cancer risk to less than one incident per 100,000 population, and new or modified sources of noncarcinogenic TACs must apply reasonable control technology. Under Rule 1003, existing facilities must assess potential noncancer health effects from acute and chronic exposure to toxic emissions compared to reference exposure levels, where increased cancer risk must be less than one incident per 100,000 population. Carcinogenic TAC emissions, whether from construction or operation of a project, that can result in a cancer risk greater than one incident per 100,000 population are considered significant.

Odors

According to MBARD, projects which would emit pollutants with objectionable odors in substantial concentrations could result in significant impacts if odors would cause injury, nuisance, or annoyance to a considerable number of persons or would endanger the comfort, health, or safety of the public. Because people have mixed reactions to odors, the nuisance level of an odor varies. Monterey City Code Section 38-111(C) establishes performance standards for odors regulating uses in all zoning districts. Further, sources that emit odors are subject to MBARD permitting authority,

[29] U.S. Environmental Protection Agency, Near Roadway Air Pollution and Health: Frequently Asked Questions, [EPA-420-F-14-044], Office of Transportation and Air Quality, August 2014, https://nepis.epa.gov/Exe/ZyPDF.cgi/P100NFFD.PDF?Dockey=P100NFFD.PDF.

regulated under Rule 402 (Nuisances). Consistent with California Health and Safety Code Sections 41509, 41700, and 41705, MBARD Rule 402 is an explicit prohibition against sources creating public nuisances, including odors (except from certain agricultural operations), while operating within the NCCAB.

As discussed in the Regulatory Settings section, CARB has identified several types of land uses as being commonly associated with odors, such as landfills, wastewater treatment facilities, and animal processing centers. As a programmatic land use plan, the Proposed Plan may encompass some of these types of land uses; however, the Proposed Plan does not itself specifically propose any new sources of odors or sensitive receptors. As such, potential odor impacts are evaluated based on a proximity analysis of common odor sources and existing or reasonably foreseeable receptors.

METHODOLOGY AND ASSUMPTIONS

Air quality impacts associated with construction and operation of the Proposed Plan were assessed and quantified (where applicable) using standard and accepted software tools, methodologies, and emission factors. A summary of the methodology is provided below.

Construction

As discussed in Chapter 2: Project Description of this Draft EIR, the Proposed Plan would facilitate development of a mix of uses including a range of housing options, as well as other non-residential and mixed-use spaces across the approximately 5,522-acre Planning Area. Implementation of the Proposed Plan could ultimately result in the net new development of 119 single-family homes, 120 accessory dwelling units (ADUs), and 5,548 multifamily residential units in addition to approximately 2,746,400 sf of research and development, 1,639,400 sf of retail, 344,100 sf of educational, 173,100 sf of public, 126,400 sf of industrial, and 56,200 sf of other business uses.[30]

The land uses that could be developed under the Proposed Plan would generate construction-related emissions from mobile and stationary construction equipment exhaust, employee and haul truck vehicle exhaust and fugitive dust, fugitive dust from land clearing and material movement, and off-gassing emissions from paving and application of architectural coatings. The specific size, location, construction techniques and scheduling that would be utilized for each future individual development project occurring within the Planning Area from implementation of the Proposed Plan is not currently known. With an anticipated buildout year of 2031, development of the various land uses associated with the Proposed Plan would occur over an extended period of time and would depend on factors such as local economic conditions, market demand, and other financing considerations. As such, without specific project-level details it is not possible to develop a refined construction inventory.[31] Consequently, the determination of construction air quality impacts for

[30] The air quality modeling analysis is conducted based on the incremental difference in development anticipated through the Proposed Plan buildout year. The amount of development is calculated based on employment density (square feet of building area per employee or job), using the methodology provided by the Southern California Association of Governments. Land use changes used in air quality modeling are consistent with transportation modeling analysis in this EIR.

[31] Project-level information includes details such as the size and scale of the project to be constructed, construction schedule, equipment fleet, construction worker crew estimates, and demolition, and grading quantities.

each individual development project, or a combination of these projects, would require the City to speculate regarding such potential future project-level environmental impacts. Thus, in the absence of the necessary construction information required to provide an informative and meaningful analysis, the evaluation of potential construction-related impacts resulting from implementation of the Proposed Plan is conducted qualitatively in this EIR.

Operations

Long-term (i.e., operational) regional emissions of criteria air pollutants and precursors, including mobile-, energy-, and area-source emissions, were quantified for the Proposed Plan. As stated in Chapter 2: Project Description, buildout of the Proposed Plan included existing development, pipeline development, and new development. The land uses categorized as "existing development" would remain unchanged through 2031, land uses categorized as "pipeline development" included approved projects or specific plan areas that have not yet been constructed but are expected to be developed by 2031, and "new development" includes the future development within the Planning Area resulting from the Proposed Plan. Since existing development would remain unchanged, the air quality analysis focuses on the net change in development which would include the land uses associated with the pipeline and new development categories.

Operational Mobile Source Emissions

On-road mobile-source emissions include criteria pollutant emissions from vehicles. Criteria pollutant emissions from motor vehicles were estimated using the most recent version of the California Emission Estimator Model (CalEEMod) version 2022.1.1.21 (last updated December 5, 2023), which incorporates emission factors from EMission FACtor model version 2021 (EMFAC2021), and daily vehicle trips and daily VMT from as described in the Section 3.13: Transportation. Daily trips and VMT accounted for trip reductions achieved by land use and transportation network changes resulting from the Proposed Plan, including bicycle and pedestrian network improvements and mixed-use design. However, it is noted that the transportation modeling reflects the built-in parameters of AMBAG's Regional Travel Demand Model, which is only current to 2018 and may not reflect more recent transportation projects that may affect the Planning Area. According to project transportation modeling, the Proposed Plan would result in a net increase of 16,242 daily trips and daily VMT of 247,740 at full buildout. These inputs were used to scale CalEEMod default inputs to the project's local land use transportation context (see Appendix H for inputs).

Operational Area, Energy, and Stationary Source Emissions

Area and energy emissions were estimated using CalEEMod. Area sources include emissions from wood and natural gas combustion in fireplaces, use of landscape maintenance equipment, repainting of buildings, and consumer products (cleaners, detergents, degreasers, etc.). Energy sources include the combustion of natural gas for building heating and hot water. Area- and energy-source emissions for the industrial land uses to be removed were quantified using a baseline year of 2023. The Proposed Plan's emissions were estimated using a buildout year of 2031. Because operational details for each individual development project proposed under the Proposed Plan are currently unknown, CalEEMod defaults were assumed based on the anticipated land uses; landscape area was estimated at 10 percent where inputs were manually required (except for mobile

homes), and all other associated inputs (e.g., special landscape area) were maintained. Stationary sources such as emergency generators and boilers that would be developed for each individual development project, or a combination of these projects, would be subject to the permitting requirements by MBARD; however, MBARD rules and regulations were not modeled, given that they are assumed to remain the same in both existing and proposed scenarios. Stationary sources are discussed qualitatively, because details of future projects and their stationary sources are currently unknown.

RELEVANT PROPOSED GOALS AND POLICIES

The Proposed Plan contains the following goals and policies relevant to air quality. The full text of proposed Housing Element programs is included in Appendix B for reference:

Housing Element

Housing Goal #1. Increase housing supply and facilitate production of at least 3,654 new homes by 2031.

Policy 1.2 Promote infill development in adopted Specific Plan areas where high density residential development can be accommodated in proximity to employment, shopping, transit, recreation, and other services.

Program I-C Specific Plan Updates.

Housing Goal #5. Continue to promote sustainability and energy efficiency in residential development to lower energy use through energy efficient urban design and through better design and construction in individual projects.

Policy 5.1 Promote energy conservation and incentives, including those offered by Central Coast Community Energy.

Policy 5.2 Encourage the incorporation of energy conservation design features in existing and future residential developments to conserve resources and reduce housing costs.

Policy 5.3 Encourage the use of building placement, design, and construction techniques that promote energy conservation, including green building practices, the use of recycled materials, and the recycling of construction and demolition debris.

Program 5-A Energy Efficient Design.

Program 5-B Green Building Incentives.

Program 5-C Sustainable Design.

Land Use Element

Goal A **Establish a compact, sustainable land use and development pattern with boundaries defined by the Santa Lucia Mountains and the Monterey Bay.**

Policy A.8 Reinforce the visual, pedestrian, and bicycle connection between City neighborhoods and the Bay so that residents have exceptional non-automobile access to the Bay.

Goal B **Create and nurture a series of distinctive, walkable, mixed use neighborhoods in Monterey.**

Policy B.1 Develop and implement specific plans and zoning to guide development in the mixed use neighborhoods, recognizing that each mixed use neighborhood is unique and requires tailored development and design standards, multi-modal improvements, and infrastructure financing strategies.

Policy B.5 Create an attractive, safe environment for bicycles and pedestrians that promotes "micro-mobility" and connectivity to and within the mixed use neighborhoods.

Circulation Element

Goal A **A transportation network that is complemented by land uses that are easily accessible by walking, bicycling, or utilizing transit.**

Policy A.1 Continue to apply land-use planning tools and strategies that support the City's circulation goals and direct growth to areas best served by alternative modes of transportation.

Policy A.2 Continue to use land-use policies to concentrate development within walking distance of the transit system.

Policy A.3 Encourage transit/pedestrian oriented (TOD/POD) designs in mixed-use neighborhoods.

Policy A.4 Update the parking and transportation fund, which is used to fund transportation improvement projects and non-infrastructure programs as outlined in the City's multimodal plan.

Policy A.5 Encourage mixed-use development to maximize the shared use of on-site parking spaces.

Policy A.6 Incorporate uses such as retail, office, or residential into the design of public parking structures.

Policy A.10 Require proposed developments to provide ADA improvements, sidewalks or pedestrian connections, bicycle facilities, or transit facilities which would provide active transportation access to the development.

Policy A.11 Consider the compatibility of proposed land use developments with the establishment of future rail service into the City of Monterey.

Goal B **A safe and well-maintained roadway system that efficiently moves people and goods across all modes of transportation.**

Policy B.1 Create and maintain a roadway system of "Complete Streets" that is safe and easy to use for all modes of transportation.

Policy B.2 Consider the needs of buses, bicyclists, and pedestrians when planning any road improvements.

Policy B.4 Prioritize bicycle and pedestrian mobility improvements over vehicle convenience.

Policy B.5 Implement the City's multimodal plan to integrate and implement the circulation element policies and update as needed.

Goal C **A safe, reliable, connected and integrated bicycle transportation network that encourages bicycling as a primary mode of transportation for residents, employees and visitors.**

Policy C.1 Design bicycle facilities that take into account users of all abilities and ages.

Policy C.2 Increased bicycle connectivity between neighborhoods and major city and regional destinations.

Policy C.3 Maintain designated bicycle routes as attractive and safe transportation facilities to provide viable alternatives to automobile travel.

Policy C.4 Prioritize connections to the Monterey Peninsula Recreational Trail (MPRT) as a primary route for active transportation.

Policy C.5 Identify commuter routes, which provide more direct bicycle connections for residents and visitors.

Policy C.6 Establish and maintain a current list of bicycle improvement projects in the City's multimodal plan to create a connected bicycle transportation network.

Policy C.7 Enhance public awareness of bicycling laws and the proper use of bikeways through enforcement, bicycle safety programs, and bikeway design.

Policy C.8 Support implementation of regional active transportation networks, such as the Fort Ord Regional Trail and Greenway (FORTAG) and Monterey Bay Sanctuary Scenic Trail (MBSST), which connect pedestrians and bicyclists from Monterey to the greater Monterey Bay Area.

Policy C.9 Require development projects to provide on-site facilities such as bicycle parking, storage and showers, provide connections to existing and future planned facilities,

dedicate land to expand existing facilities or provide new facilities such as sidewalks/multi-use paths and/or bicycle lanes, or contribute to the cost of improvements. Ensure that projects are designed and/or retrofitted to be efficiently served by buses, bike routes and pedestrians connections.

Goal D **A safe, accessible, connected and integrated pedestrian transportation network that encourages walking as a primary mode of transportation for residents, employees and visitors.**

Policy D.1 Design pedestrian facilities that take into account users of all abilities and ages.

Policy D.2 Design intersections to improve pedestrian safety and mobility.

Policy D.3 Increase pedestrian connectivity between neighborhoods and major city and regional destinations.

Policy D.4 Establish and maintain a current list of pedestrian improvement projects in the City's multimodal plan to create a continuous pedestrian network throughout the City.

Policy D.5 Establish Crosswalk Guidelines which provide standards for the strategic placement of pedestrian crossings throughout the City in the City's multimodal plan, as well as the basis for relocating and eliminating crosswalks.

Policy D.6 Continue to identify and prioritize projects which would improve accessibility for all pedestrians, such as ADA ramps, audible pedestrian signals, sidewalk widenings or any other transportation infrastructure improvement that could improve accessibility.

Policy D.7 Require that development projects provide internal pedestrian connections and linkages to adjacent public streets, neighborhoods and community facilities. Ensure that projects are designed and/or retrofitted to be efficiently served by buses, bike routes and pedestrians connections.

Goal E **An integrated multi-modal transportation network that supports and encourages transit use, including Bus, Bus Rapid Transit (BRT), and Rail.**

Policy E.1 Promote the use of transit service as an attractive alternative for residents, employees, and visitors.

Policy E.2 Encourage use of the MST Trolley service to connect visitors between Downtown Monterey and Cannery Row.

Policy E.3 Coordinate with Monterey-Salinas Transit (MST) on changes to the local transit service.

Policy E.4 Install transit priority system, where feasible, in collaboration with MST.

Policy E.5 Collaborate with MST and area jurisdictions to improve access to transit.

Policy E.6 Collaborate with MST to provide attractive amenities at transit stops in the City.

Policy E.7 Protect the potential for future rail transportation by supporting the efforts of the Transportation Agency for Monterey County (TAMC) to provide additional passenger rail service.

Policy E.8 Require development projects to enhance access to transit. Ensure that projects are designed and/or retrofitted to be efficiently served by buses, bike routes and pedestrians connections.

Goal F **A transportation network which supports the reduction of transportation related greenhouse gas emissions through the reduction of vehicle miles traveled.**

Policy F.1 Adopt vehicle miles traveled (VMT) as the metric to measure transportation environmental impacts for CEQA, in accordance with SB 743.

Policy F.2 Establish thresholds of significance for proposed developments, land use plans, transportation projects, and any other plans or development projects.

Policy F.3 Establish a Transportation Impact Analysis Guide for the analysis of transportation impacts for CEQA purposes and a Local Transportation Analysis to ensure compliance with other goals and policies identified in the Circulation Element of the General Plan and City's multimodal plan.

Goal G **Parking that efficiently utilizes existing facilities and encourages a reduction in auto travel.**

Policy G.1 Adopt parking programs that maximize occupancy of public parking spaces by employees and/or visitors to minimize parking impacts in adjacent residential neighborhoods.

Policy G.2 Implement a demand-based pricing structure for public parking.

Policy G.3 Establish appropriate time limits for parking in commercial business districts to support local businesses and encourage use of the MST Trolley.

Policy G.4 Improve utilization of existing parking and create new parking opportunities, such as shared parking, through partnerships and cooperation in order to meet parking needs with fewer total spaces.

Policy G.5 Consider pedestrian safety and mobility, when designing pedestrian ways through parking lots to enable pedestrians to reach their destinations in a safe manner.

Policy G.6 Maintain the supply of existing visitor recreational vehicle parking supply, on the Waterfront, Depot, Marina and Breakwater parking lots.

Policy G.7 Establish and maintain the residential permit parking program.

Policy G.8 Incorporate bicycle parking in parking lots and garages for both public and private development.

Policy G.9 Promote a "Park Once" system that encourages visitors to park once and walk, bike or use transit to travel in Monterey.

Policy G.10 Partner with the schools and universities to reduce the parking impact on residential parking supply.

Policy G.11 When incorporating directional and variable message signs (VMS) redirect visitor traffic to the Downtown Parking garages and encourage the use of the MST Trolley, when Cannery Row Parking is at capacity.

Goal K **An air transportation system that is integrated with a multimodal surface transportation system that efficiently moves people and goods while maximizing positive economic impacts.**

Policy K.1 Work with the Monterey Peninsula Airport District and hospitality industry to provide direct and affordable connections between the Monterey Regional Airport and their destinations, through car/ride-share, transportation network companies (TNC), hotel shuttle, or other means.

Policy K.7 Plan for a multimodal facility in central Monterey that supports and encourages the use of airport shuttles, regional transit, and local transit.

IMPACTS

Impact 3.3-1 Implementation of the Proposed Plan would result in a cumulatively considerable net increase of criteria pollutants for which the Project region is non-attainment under an applicable federal or State ambient air quality standard. (*Significant and Unavoidable*)

The Proposed Plan is located in the NCCAB, which is regulated by MBARD. Although the NCCAB has achieved and is currently maintaining attainment status for ozone standards, in the past, the air basin was in violation of both federal and California standards for ozone. MBARD's AQMP was prepared as an attainment plan for ozone and is still the applicable air quality plan for the Proposed Plan. Although not part of the AQMP, MBARD's SB 656 Implementation Plan addresses reduction of PM, including PM_{10} and $PM_{2.5}$. As shown in Table 3.3-3, the NCCAB is currently in nonattainment of the CAAQS for PM_{10}. As such, the following analysis discusses the Proposed Plan's potential to result in a cumulatively considerable net increase in ozone and PM_{10}.

Construction

Construction of land use developments allowable under the Proposed Plan, as mentioned above and described in Chapter 2: Project Description, would occur intermittently within the Planning

Area throughout the course of the eight-year buildout period. As such, it is anticipated that in any given year, multiple land use development projects would be constructed within the Planning Area. However, the precise effects of construction activities associated with buildout of the Proposed Plan cannot be accurately quantified at this time because the timing and intensity of future development projects is not known, and assumptions regarding market conditions, site constraints, land availability, and property owner interest for future development would require speculation. Nevertheless, construction associated with new land use developments under the Proposed Plan would result in the temporary generation of ozone precursors (ROG and NO_X), CO, and PM emissions that could result in short-term impacts on ambient air quality within the Planning Area. Construction-related emissions would originate from mobile and stationary construction equipment exhaust, employee and haul truck vehicle exhaust, fugitive dust emissions from land clearing, soil movement, and demolition, and off-gassing emissions from architectural coatings and asphalt paving, though the amount of emissions would vary substantially depending on the level of activity, length of the construction period, specific construction operations, types of equipment, number of personnel, wind and precipitation conditions, and soil moisture content.

As noted previously, MBARD has established project-level thresholds to analyze emissions generated by a single project. Although the construction emission impacts associated with each new individual development under the Proposed Plan would be short-term in nature (relative to the buildout year) and limited to the period when construction activity is taking place for that particular development, the concurrent construction of multiple individual development projects could generate combined criteria pollutant emissions on a daily basis that may exceed MBARD's project-level thresholds. In addition, depending on the size and scale of an individual development project, along with its construction schedule and other parameters, there may also be instances where the daily construction emissions generated by a single development project within the Planning Area could also exceed MBARD's criteria pollutant thresholds. These emissions could contribute to ozone formation and other air pollution, which at certain concentrations, can contribute to short- and long-term human health effects. Housing Element Program 5-C would help reduce construction emissions by restricting use of HFCs in mechanical equipment and building materials, using sustainable and recyclable materials, requiring a City-approved construction waste management plan, using local materials, and implementing construction strategies that reduce resource and environmental impacts. However, it is not guaranteed that this program would be sufficient to reduce impacts to a less-than-significant level, and as such, construction emissions from the Proposed Plan could result in a potentially significant impact on air quality.

Operations

Operation of the Proposed Plan at buildout has the potential to result in air quality impacts from area, energy, and mobile source emissions of criteria air pollutants and precursors. Table 3.3-7 summarizes the daily operational emissions of the Planning Area under existing conditions and compares them with estimated future emissions under buildout of the Proposed Plan in 2031, including Proposed Plan policies with quantifiable mitigation such as integration of affordable and below market rate housing, improvement of bicycle infrastructure, parking reductions, exceedance of energy efficiency standards, and cleaner energy (Housing Element programs 2-I, 5-A, and 5-B and Circulation policies C.6, C.9, and G.2). It is noted that the Proposed Plan also includes policies that cannot be quantified but would help further reduce emissions, but they are not accounted for in the emissions shown in Table 3.3-7. Under this conservative estimate, the Proposed Plan's

operational emissions would exceed MBARD's project-level significance thresholds for all pollutants except NOx. The increase in ROG and CO emissions is primarily attributed to energy consumption, while area source emissions, specifically on-road fugitive dust, account for nearly all PM_{10} and $PM_{2.5}$ emissions.

As discussed above, MBARD's project-level thresholds were developed to analyze emissions generated by a single project and so offer an extremely conservative evaluation of emissions from an entire programmatic land use plan such as the Proposed Plan. However, they are included in this analysis for informational purposes. In the absence of plan-level significance thresholds, operational air quality impacts of the Proposed Plan are also qualitatively evaluated for consistency with the 2016 AQMP to determine whether criteria pollutant emissions attributed to population and economic growth are significant. Impact 3.3-2 provides the 2016 AQMP consistency analysis based on the requirements of MBARD's CEQA Implementation document. The analysis demonstrates that the Proposed Plan would support the goals of the 2016 AQMP and include all applicable control measures, but population growth resulting from the Proposed Plan does not align with AMBAG's Regional Growth Forecasts, and the magnitude of growth could potentially result in significant impacts on air quality. This is further supported by the quantified operational emissions, which are estimated to increase for all criteria pollutants, especially PM. Daily emissions of PM_{10}, for which the NCCAB is currently in nonattainment, could be 58 percent higher and over one thousand times the daily emissions threshold under the Proposed Plan compared to existing conditions, and $PM_{2.5}$ emissions are also a significant magnitude higher than the threshold. This increase is primarily attributed to area source emissions, specifically on-road fugitive dust, which is a product of CalEEMod default roadway and vehicle characteristics and CARB's unmitigated unpaved road statewide emission inventory method. Due to the increase in VMT (consistent with discussion in Section 3.13: Transportation), these default inputs yielded a very conservative (i.e., high) estimate for PM dust emissions the Planning Area.

As discussed under Impact 3.3-2, the Proposed Plan includes policies that would minimize criteria air pollutant emissions primarily from mobile and energy sources by fostering bicycle and pedestrian infrastructure and supporting sustainable land use patterns, including mixed-use design and increased density. These policies align with MBARD's recommended measures that mitigate indirect source (motor vehicle) emissions, including locating indirect sources (e.g., shopping centers, office buildings) near transit stations, promoting high-density development within one-quarter mile of a transit station, encouraging mixed-use (residential and commercial) and infill development, encouraging general densification of residential and commercial land uses, and working towards a jobs-to-housing balance. The Proposed Plan incorporates all of these strategies, such as through the Housing Element's revised Multifamily Overlay, call for Specific and Area Plan Updates, and placement of job growth near new housing opportunities (i.e., mixed-use neighborhood design). MBARD also recommends site design measures to reduce individual projects' energy demand and VMT, including solar or energy-efficient systems (lighting, heating, cooling, appliances), incorporation of pedestrian facilities (paths/trails) into site design, provision of bicycle facilities (bike lockers, racks, paths/trails, showers and lockers), and inclusion of retail or service uses with commercial or industrial projects – all of which are features of the Proposed Plan (Housing Element Programs 5-A, 5-B, and 5-C and Circulation Element policies A.2, A.3, C.9, D.7, E.8, and G.8).

Table 3.3-7: Estimated Maximum Daily Operational Emissions with Proposed Plan

		Daily Emissions[1] (pounds per day)				
Analysis Condition/Source		*ROG*	*NOx*	*CO*	*PM_{10}*	*$PM_{2.5}$*
Existing (2023)	Area	138	117	794	153,289	15,340
	Energy	1,349	116	1,891	40	40
	Mobile	13	223	136	18	18
	Total	**1,500**	**456**	**2,821**	**153,347**	**15,398**
Proposed Plan[2] (2031)	Area	143	86	797	241,714	24,188
	Energy	1,682	140	2,458	42	42
	Mobile	16	287	174	23	23
	Total	**1,841**	**513**	**3,429**	**241,779**	**24,253**
Net Change		341	57	608	88,432	8,855
Threshold[3]		137	137	550	82	55
Exceeds Threshold?		**Yes**	**No**	**Yes**	**Yes**	**Yes**

ROG = reactive organic gases; NOx = nitrogen oxide; CO = carbon monoxide; PM10 = particulate matter no more than 10 microns in diameter; PM2.5 = particulate matter no more than 2.5 microns in diameter

Notes:

1. Emission outputs from CalEEMod are generated for both the summer and winter seasons, with emission levels differing slightly for the pollutants in each season. Emission levels of ROG and NOx tend to be generally higher during the winter while emissions of CO tend to be generally higher in the summer. Emissions of PM_{10} and $PM_{2.5}$ remain the same during both seasons. The maximum emissions for each pollutant over the course of the summer and winter seasons are shown in this table.
2. Proposed Plan scenario includes mitigations from policies that could be quantified in CalEEMod, using conservative inputs for a conservative estimate.
3. MBARD's project-level thresholds were developed to analyze emissions generated by a single project and so offer an extremely conservative evaluation of emissions from an entire land use plan such as the Proposed Plan.

Source: See Appendix H for modeling files.

Although reductions were not quantified for the air quality modeling in this EIR, Proposed Plan policies that reduce vehicle use would also substantially decrease generation of on-road fugitive dust, which CalEEMod classifies as an area source. Stationary area sources associated with future development would be subject to the permit authority of the MBARD (such as Rules 403 and 438, which establish PM emissions limits and requirements and standards for outdoor fires, respectively) to reduce associated health risks and air quality impacts. Although the Proposed Plan would reduce the severity of growth-oriented criteria pollutants, individual projects may still generate emissions exceeding the MBARD's project-level thresholds. Accordingly, operational criteria pollutant emissions associated with development under the Proposed Plan would result in a potentially significant impact on air quality and mitigation would be required.

Mitigation Measures

MM-AQ-1: **Project-Level Air Quality Analysis.** The City shall require that applicants proposing development of projects within the Planning Area shall compare their project size with the MBARD screening sizes (Tables 5-1, 5-2, and 5-3 in the CEQA Air Quality Guidelines) appropriate to their project for criteria air pollutants generated during constructions and operations. If the project is less than the screening sizes for the project type, then the project is not required to conduct a project-level analysis of operational and construction emissions, unless construction would involve:

- Demolition;
- Simultaneous occurrence of more than two construction phases (e.g., paving and building construction would occur simultaneously) or construction would occur simultaneous with other Proposed Plan development;
- Simultaneous construction of more than one land use type (e.g., project would develop residential and commercial uses on the same site) (not applicable to high density infill development);
- Extensive site preparation (i.e., greater than default assumptions used by the CalEEMod model for grading, cut/fill, or earth movement); or
- Extensive material transport (e.g., greater than 10,000 cubic yards of soil import/export) requiring a considerable amount of haul truck activity.

Projects that exceed the screening sizes or include the above activities would be required to evaluate the project's emissions and compare them to MBARD daily thresholds for construction and/or operation, as applicable. If the project-level analysis results in exceedances of MBARD construction thresholds, MM AQ-2 through MM AQ-4 shall be implemented, as well as any project-specific measures. If the project's emissions are reduced to levels below MBARD thresholds with implementation of all feasible mitigation measures, impacts would be less than significant.

MM-AQ-2: **MBARD Basic Construction Mitigation Measures for Air Quality.** The City shall require implementation of the following basic construction mitigation measures, as feasible, as a condition of approval of grading permits.

1. Water all active construction sites at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.
2. Prohibit all grading activities during periods of high wind (over 15 miles per hour).
3. Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
4. Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydro seed area.
5. Haul trucks shall maintain at least two feet of freeboard.
6. Cover all trucks hauling dirt, sand, or loose materials.

7. Plant tree windbreaks on the windward perimeter of construction projects if adjacent to open land.
8. Plant vegetative ground cover in disturbed areas as soon as possible.
9. Cover inactive storage piles.
10. Install wheel washers at the entrance to construction sites for all exiting trucks.
11. Pave all roads at construction sites.
12. Sweep streets if visible soil material is carried out from the construction site.
13. Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. The phone number of Monterey Bay Air Resources District (MBARD) shall also be visible to ensure compliance with Rule 402 (Nuisance).
14. Limit the area under construction at any one time.

MM-AQ-3: **Require at Least Tier 4 Final Engines on Construction Equipment.** All applicants proposing development of projects within the Planning Area shall require their contractors, as a condition of contract, to reduce construction-related exhaust emissions by ensuring that all off-road equipment greater than 50 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall operate on at least an EPA-approved Tier 4 Final or newer engine. Exemptions can be made for specialized equipment where Tier 4 engines are not commercially available within 200 miles of the project site. The construction contract must identify these pieces of equipment, document their unavailability, and ensure that they operate on no less than an EPA-approved Tier 3 engine. CARB regulations will result in the percentage of Tier 4 engines increasing over the next several years. Applicants must conduct recordkeeping of equipment verification documents for construction equipment and the City has the right to review equipment logs.

MM-AQ-4: **Require 2010 Model Year Compliance of Diesel Truck Engines.** All applicants proposing development of projects within the Planning Area shall require their contractors, as a condition of contract, to use diesel trucks that have 2010 model year or newer engines, but no less than the average fleet mix for the current calendar year as set forth in the CARB's EMFAC database. In the event that 2010 model year or newer diesel trucks cannot be obtained, the contractor must provide documentation to the City showing that a good faith effort to locate such engines was conducted. Applicants must conduct recordkeeping of truck verification documents and the City has the right to review truck logs.

As shown in Table 3.3-7, it is estimated that energy-source emissions of ROG and CO and area-source emissions of PM_{10} and $PM_{2.5}$ may have significant impacts. MM-AQ-1 would require projects that exceed MBARD's project emissions thresholds to incorporate project-specific mitigation measures (as necessary) and address project-level sources of criteria air pollutants. Operational emissions would be reduced by MM-TRANS-1 (see Section 3.13: Transportation), substantially reducing on-road PM emissions, which are the largest source of Proposed Plan PM_{10} and $PM_{2.5}$. However, even with these mitigation measures, individual projects may exceed MBARD's project-level thresholds and cumulatively contribute to the non-attainment of PM_{10} in the NCCAB. Therefore, operational air quality impacts are conservatively assumed to be significant and unavoidable**.**

Significance after Mitigation: Significant and Unavoidable

Impact 3.3-2 Implementation of the Proposed Plan would not conflict with or obstruct the implementation of the applicable air quality plan. (*Significant and Unavoidable)*

The Clean Air Act requires that a SIP or an air quality control plan be prepared for areas with air quality violating the NAAQS. The SIP sets forth the strategies and pollution control measures that states will use to attain the NAAQS. The California Clean Air Act requires attainment plans to demonstrate a five percent per year reduction in non-attainment air pollutants or their precursors, averaged every consecutive three-year period, unless an approved alternative measure of progress is developed. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date. The current air quality plan for the NCCAB is the 2016 AQMP. As described in the Significance Criteria section above, consistency with MBARD's 2016 AQMP means that the Proposed Plan does not conflict with or obstruct implementation of the AQMP (i.e., disrupting or hindering control measures) or otherwise being inconsistent with the AQMP's primary purpose of achieving attainment status for ozone (i.e., by exceeding MBARD's emissions thresholds). In addition, the Proposed Plan should be consistent with AMBAG's regional projections.

Support Progress toward Attainment Status for Ozone

The primary purpose of the AQMP is to achieve attainment status for ozone for the NCCAB. As discussed in the Environmental Setting, ozone precursors include ROG and NOx, the primary sources of which are motor vehicles and area-wide sources such as asphalt paving and household products. The Proposed Plan's land use framework and transportation strategies would support regional attainment of the ozone CAAQS and NAAQS through policies that would lessen mobile-source emissions by reducing VMT, encouraging transit, enhancing bicycle and pedestrian infrastructure, and supporting sustainable land use patterns with increased density and mixed-use development (Circulation policies A.1, B.5, C.6, C.9, D.4, D.7, and E.8 and Land Use policies A.1, A.2, A.4, B.1, and B.5). Housing Element Programs 5-B and 5-C would encourage and facilitate sustainable building design and practices that meet or exceed CALGreen requirements, including use of cleaner equipment and materials, during construction and throughout operation. Housing Element policies 5.1, 5.2, and 5.3 and Program 5-A would also reduce energy consumption, thereby minimizing energy emissions, which are the most significant source of ROG emissions (see Table 3.3-7). Therefore, the Proposed Plan would support the AQMP's primary purpose to achieve attainment status for ozone.

Support Implementation of Control Measures

As previously stated, the 2016 AQMP does not specifically include control measures. In fact, findings from the 2016 AQMP report that control measures have not been implemented or have been marginally effective since 2008, and MBARD has committed to further evaluating control measures for the next update of the AQMP. Instead, the 2016 AQMP focuses on regional planning strategies as a means of making progress toward attaining the 8-hour ozone standard – specifically, through grant programs that will reduce ROG and NOx emissions by offering incentives to reduce emissions from transportation sources, marine vessels, agricultural irrigation pumps, and vehicles.

Key programs and rules identified in the 2016 AQMP that have and are anticipated to continue reducing emissions while population increases include: CARB's Low Emission Vehicle Program, CARB's Off-Road Motor Vehicle Program, CARB's Advanced Clean Cars Program, Pavley Fuel Standards (AB 1493), Rule 432 (Emissions from Electric Power Boilers), Rule 1002 (Transfer of Gasoline into Vehicle Fuel Tanks, and Rule 426 (Architectural Coatings). As discussed above, the Proposed Plan land use and transportation policies support emissions reductions from mobile sources, while Housing Element policies support emissions reductions from energy sources. These policies or programs would support or complement pollutant control measures and 2016 AQMP programs. Therefore, the Proposed Plan would not disrupt or hinder implementation of the AQMP and would support the applicable control measures to meet the plan's primary goals.

Align with Regional Growth Forecasts

MBARD uses AMBAG's Regional Growth Forecasts to account for projected change in regional criteria pollutant emissions. The 2016 AQMP is based on the 2014 Regional Growth Forecasts. As shown in Table 3.3-5, AMBAG projected extremely modest growth in Monterey, with only 904 more people between 2030 and 2035, reaching a population of 30,647 in 2035. It is noted that the updated 2022 Regional Growth Forecast population projections are even less, with an increase of only 382 in Monterey between 2030 and 2035.

As discussed in Chapter 2: Project Description, the Proposed Plan would result a population increase of 10,125 over the eight-year planning period, reaching approximately 37,000 at buildout in 2031. This differs significantly from AMBAG's Regional Growth Forecasts (both 2014 and 2022), and as a result, ozone precursor emissions from the Proposed Plan are not accommodated within the 2016 AQMP, indicating a potentially significant conflict with the 2016 AQMP. However, the 2014 Regional Growth Forecast (and by extension the 2016 AQMP) does not account for current regional housing needs allocation (RHNA) requirements mandated by the State. The Proposed Plan is designed to accommodate its fair share of RHNA and also includes an additional "buffer" of housing unit capacity beyond the minimum RHNA requirements, in accordance with the No Net Loss Law (Gov. Code Sec. 65863). As a result, the Proposed Plan would achieve a more balanced jobs-to-housing ratio, which broadly supports the objectives of the 2016 AQMP.

Conclusion

As described above, the Proposed Plan is broadly consistent with the policy objectives of the AQMP. The focus on mixed-use and infill development in land use and transportation policies as well as Housing Element policies and programs in the Proposed Plan would help reduce pollutant emissions in the Planning Area and support 2016 AQMP programs and control measures for attainment and maintenance of ozone NAAQS and CAAQS. Additionally, the Proposed Plan meets legal requirements to accommodate RHNA and would improve the jobs-to-housing balance by providing more housing near employment opportunities. However, because the magnitude of growth associated with buildout of the Proposed Plan exceeds the level of growth that is incorporated into the 2016 AQMP, ultimately resulting in a cumulative net increase in ozone precursors and PM (as discussed under Impact 3.3-1), this impact is potentially significant, and mitigation is required.

Mitigation Measures

MM-AQ-2 through MM-AQ-4, in conjunction with any additional project-specific mitigation measures as needed under MM-AQ-1, would help reduce project-generated emissions from construction and operation of the Proposed Plan. However, because project-generated emissions could potentially lead to significant impacts (as discussed under Impact 3.3-1) that conflict with the 2016 AQMP, this impact is significant and unavoidable.

Significance after Mitigation: Significant and Unavoidable

Impact 3.3-3 Implementation of the Proposed Plan would expose sensitive receptors to substantial pollutant concentrations. (***Significant and Unavoidable***)

Sensitive land uses are generally considered to include those uses where an exposure to pollutants could result in health-related risks for individuals. Typical sensitive receptors are residences, hospitals, and schools. Parks and playgrounds where sensitive receptors (e.g., children and seniors) are present would also be considered sensitive receptors. Sensitive receptors are located throughout the Planning Area at residences, schools, and parks. Development of the Proposed Plan has the potential to expose sensitive receptors to health effects from regional criteria pollutants, CO hot spots, localized concentrations of PM, and TACs including diesel, asbestos, lead, benzene, and perchloroethylene. These pollutants are addressed separately in greater detail below.

Criteria Air Pollutants

As discussed in Impact 3.3-1, the Proposed Plan would contribute to existing and future air pollution, including substantial levels of daily ozone precursors, CO, and PM emissions. However, these emissions represent only a fraction of basin-wide air pollution, and the specific magnitude and location of any potential changes in regional ozone or secondary PM formation is unknown. As such, impacts from these additional emissions, as well as their associated health consequences, cannot be quantified with any level of certainty because of the dynamic and complex nature of regional pollutant formation and distribution (e.g., meteorology, emissions sources, sunlight exposure). Similar limitations exist with respect to precisely modeling project-level health consequences of directly emitted PM. However, it is known that public health will continue to be affected in the NCCAB until the region attains the CAAQS or NAAQS. Given that the Proposed Plan would contribute an overall increase in emissions of criteria air pollutants, the Proposed Plan has a potentially significant impact regarding exposure of sensitive receptors to substantial pollutant concentrations.

Carbon Monoxide Hot Spots

Continuous engine exhaust may elevate localized CO concentrations, resulting in hot spots. Receptors exposed to CO hot spots may have a greater likelihood of developing adverse health effects. CO hot spots are typically observed at heavily congested intersections where a substantial number of gasoline-powered vehicles idle for prolonged durations. As discussed in the Environmental Setting and consistent with impacts discussed in Section 3.13: Transportation, local CO concentrations may be generated or exacerbated due to an increase of vehicle idling and

congestion (where traffic volumes exceed capacity) at nine study intersections (mapped in Figure 3.3-1) under the Proposed Plan and may represent a CO hot spot under MBARD CEQA Air Quality Guidelines, as discussed in the Regulatory Settings. As mapped in Figure 3.3-1, at least three of the CO hot spots identified in the Planning Area are in proximity to Housing Element sites, and as such, future sensitive receptors reasonably foreseeable under the Proposed Plan may be exposed to localized CO concentrations. Existing regulatory programs such as CAFE and Advanced Clean Cars regulations would help reduce CO emissions from mobile sources, along with proposed policies in the Circulation Element that would help reduce potential CO hot spot concentrations by improving bicycle, pedestrian, and transit infrastructure and facilities especially within mixed-use neighborhoods that make it safe and convenient to travel using non-automotive modes of transportation including biking, walking, and using transit. However, it is uncertain whether impacts would be reduced to less-than-significant levels as a result of these policies and given that operation of the Proposed Plan would result in an increase of daily CO emissions, this impact is potentially significant.

Diesel and Localized Particulate Matter

As described in the Environmental Setting, PM is considered both a regional and local air pollutant, primarily associated with industrial, agricultural, construction, and transportation activities. The primary source of diesel PM in the Planning Area is also from on- and off-road mobile sources (internal combustion engines). Figure 3.3-1 shows the location of potential area sources (industrial land uses) and existing mobile sources in the Planning Area as well as the extent of the corresponding 500-foot buffer from mobile sources. Although the Proposed Plan does not propose specific projects, sites available for housing in the Housing Element are both adjacent to industrial land uses, such as those along Garden Road and in the Fort Ord/Ryan Ranch area, as well as within the 500-foot buffer zones from designated truck routes. Given the expected increase in PM emissions (as discussed under Impact 3.3-1), there is potential for future sensitive receptors under the Proposed Plan to be exposed to substantial concentrations of localized PM as well as diesel.

Construction activities of future development projects under the Proposed Plan would also generate diesel and PM that could expose existing sensitive receptors to significant health risks, especially given proposed policies that encourage infill development. In the absence of detailed site-specific information, diesel and PM concentrations and associated health risks (e.g., excess cancer risks) cannot be accurately quantified. Depending on the size and scale of an individual development project, along with its construction schedule and proximity to receptors, there may also be instances where diesel emissions could result in cancer or non-cancer health risks that exceed the MBARD's thresholds, resulting in a potentially significant impact.

Asbestos and Lead

As described in the Environmental Setting, existing structures constructed prior to 1977 may contain asbestos, and those constructed prior to 1978 may contain lead-based paint. Demolition of such buildings resulting from development under the Proposed Plan may release airborne asbestos or inorganic lead particulates and expose adjacent sensitive receptors. However, all demolition activities would be subject to EPA's asbestos NESHAPs, if asbestos is present at the existing facilities, and MBARD requires approval for renovation and demolition projects to prevent uncontrolled emissions of asbestos under MBARD Rules 424 and 439 and Regulation 10. Lead exposure would

be regulated by NESHAPs and TSCA requirements in addition to MBARD Rule 439. Consequently, regulatory mechanisms exist that would ensure that impacts from asbestos- and lead-containing materials, if present during demolition under the Proposed Plan, would be less than significant.

Benzene and Perchloroethylene

As mentioned in the Environmental Setting, benzene and perchloroethylene are TACs that may be used by certain area sources such as dry cleaners and gasoline dispensing facilities that are present throughout the Planning Area. These TACs are regulated by NESHAPs and MBARD regulations, including Rules 418 and 424 and Regulation 10, which would apply to existing and new sources. While the Proposed Plan does not include specific projects, the Housing Element includes an inventory of sites for future residential development that are located along major corridors such as North Fremont Street (see Figure 3.3-1), which includes six existing stationary sources. Further, policies that encourage mixed-use and infill development, such as Circulation Policy A.6 that would incorporate uses such as retail, office, or residential into public parking structures, may result in exposure of sensitive receptors to mobile and area sources of benzene and/or perchloroethylene within the 300-foot buffer recommended by CARB. However, it is noted that not all dry cleaners use perchloroethylene, and CARB considers a 50-foot separation sufficient for typical gasoline dispensing facilities (less than 3.6 million gallons per year). Given the potential for reasonably foreseeable sensitive receptors to be exposed to known sources of these TACs, this impact is potentially significant.

Conclusion

Implementation of the Proposed Plan ultimately would result in the net new development of up to approximately 5,800 new housing units in locations generally indicated on Figure 3.3-1. The Proposed Plan is also expected to result in approximately 2,746,400 sf of research and development, 1,639,400 sf of retail, 344,100 sf of educational, 173,100 sf of public, 126,400 sf of industrial, and 56,200 sf of other business uses throughout the Planning Area but concentrated along existing commercial corridors and targeted growth areas, as encouraged by mixed-use and infill development policies. Such development would include area-wide sources of criteria air pollutant emissions (as shown in Table 3.3-7) and may also result in the installation or operation of new stationary sources of TACs (e.g., emergency generators). Additionally, traffic levels are expected to increase due to the Proposed Plan (as discussed in Section 3.13: Transportation) and would therefore exacerbate existing cumulative health risks. Both new and existing sensitive receptors near these stationary sources and roadways may therefore be exposed to substantial levels of criteria air pollutants or CO hot spots in addition to significant health risks from TACs. Although it is unknown what specific sources would be installed or where they would operate, all new stationary sources would be subject to the permit authority of the MBARD, and review of new sources are subject to BACT requirements. These regulatory mechanisms would ensure that cancer and health hazard impacts from stationary sources developed under the future projects would be less than significant. However, they may not be sufficient to address PM impacts if the source results in significant PM concentrations, especially given the existing nonattainment status for PM_{10} and the expected increase in PM emissions due to the Proposed Plan. As such, these impacts are significant and unavoidable.

Mitigation Measures

MM-AQ-5: **Require Future Projects Proposing Stationary Sources of TACs Located within 1,000 Feet of Receptors to Perform a Health Risk Assessment.** The City shall require that all applicants proposing development of projects that would involve the installation of stationary sources of TACs within the Planning Area and within 1,000 feet of existing sensitive receptors, as defined by the MBARD, shall prepare a site-specific health risk assessment (HRA). If the HRA demonstrates, to the satisfaction of the City, that the health risk exposures for adjacent receptors will be less than the MBARD project-level and cumulative-level thresholds, then additional mitigation would be unnecessary. However, if the HRA demonstrates that health risks would exceed the project-level or cumulative-level thresholds, additional feasible on- and off-site mitigation shall be analyzed by the applicant in coordination with the City and shall implemented by the applicant to reduce risks to the greatest extent practicable in order to achieve levels below MBARD's thresholds.

MM-AQ-6: **Require Air Quality Equipment to Minimize Health Risks.** The City shall require that all applicants proposing development of projects within the Planning Area that includes new development of residential projects and other new land use developments which would site new sensitive receptors such as schools and daycares in commercial buildings and within 1,000 feet of road segments with an annual average daily traffic (AADT) count of greater than 10,000 vehicles per day (based on the most current data from Caltrans' Traffic Census Program), to install indoor air quality equipment, such as enhanced air filters (air filters rated at a minimum efficiency reporting value [MERV] 13 or higher) or equivalent mechanisms, to minimize health risks for future receptors.

Implementation of MM-AQ-2 through MM-AQ-4 would reduce CO, diesel, and PM (exhaust and fugitive dust) emissions during construction activities. Even with these mitigation measures, the extent of the reductions from mitigation are unknown at this time. Therefore, health risks from emissions from construction activities could expose receptors to cancer and non-cancer risks in excess of the MBARD significance thresholds and would be potentially significant. Even with the Proposed Plan's policies and mitigation measures, emissions generated by new stationary sources and vehicle trips could expose sensitive receptors to cancer and non-cancer risks above MBARD's significance thresholds. MM-AQ-1 is therefore required to provide a project-level evaluation of construction- and operational-related health risks from future projects within 1,000 feet of sensitive receptors. MM-AQ-5 would reduce TAC and localized CO and PM exposure to future sensitive receptors but not for receptors at land uses that have already been constructed. Because risks associated with additional vehicle traffic are the result of personal transportation decisions, there is no feasible mitigation beyond MM-AQ-6 to address this impact. In addition, MM-AQ-6 would not apply to existing sensitive receptors that are present before new construction or operational activity commences. Therefore, after mitigation, this impact would be significant and unavoidable.

Significance after mitigation: Significant and Unavoidable

Impact 3.3-4 Implementation of the Proposed Plan would not result in other emissions adversely affecting a substantial number of people. (Less than Significant)

Although offensive odors rarely cause physical harm, they can be unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and air districts. Land uses typically associated with odor complaints include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. Odor impacts from such sources on residential areas and other sensitive receptors, such as hospitals, day-care centers, and schools, warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, work sites, and commercial areas. As a programmatic land use plan, development pursuant to the Proposed Plan may involve some of these types of land uses; however, the Proposed Plan does not itself specifically propose any new sources of odors or sensitive receptors. As such, potential odor impacts are evaluated based on a proximity analysis of common odor sources and existing or reasonably foreseeable receptors. Potential odor emitters during operations would include exhaust from vehicles and fumes from the reapplication of architectural coatings as part of ongoing building maintenance. However, odor impacts would be limited to circulation routes, parking areas, and areas immediately adjacent to recently painted structures. Although such brief exhaust- and paint-related odors may be considered adverse, they would not be atypical of developed urban areas and would not affect a substantial number of people or rise to the level of a significant impact under CEQA. In addition, future developments within the Planning Area would be required to comply with the odor performance standards required by Monterey City Code Section 38-111(C), as well as permitting requirements under MBARD Rule 402 (Nuisances). Accordingly, impacts would be reduced the maximum extent practicable and would be less than significant.

Mitigation Measures

None required.

3.4 Biological Resources

The section describes existing biological resources in the Planning Area, including habitats, wetlands and other waters, critical habitat, and special-status species, as well as relevant federal, state, and local regulations and programs. It also identifies impacts related to biological resources that would result from implementation of the Proposed Plan and mitigation for significant impacts where feasible and appropriate.

There were four responses to the Notice of Preparation (NOP) regarding topics covered in this section. The California Department of Fish and Wildlife (CDFW) submitted comments and recommendations regarding special-status animal and plant species. Additionally, LandWatch submitted comments regarding the impact on biological resources from siting housing units in Fort Ord because of the presence of Rein orchids, wetlands and vernal pools, sensitive natural communities, other rare plant listings, and the California Tiger Salamander. Two comments from individuals expressed interest in preservation of biological resources. These comments are addressed in the impacts section and incorporated into the following analysis.

Environmental Setting

PHYSICAL SETTING

Climate

Most of the habitats located in the Planning Area are affected by summer fog. The summer fog zone results from a marine influence consisting of regular summer fog and associated cool temperatures, high winds, and mild winter temperatures, with very few frosts. This combination of physical and climatological conditions provides for diverse and unique flora and fauna.[1]

[1] City of Monterey General Plan Update FEIR. October 11, 2004. Accessed: December 14, 2023. Available:https://files.monterey.org/Document%20Center/CommDev/Planning/General-Plan/General-Plan-Final-EIR.pdf.

Soil Types

A relatively large percentage of the Planning Area contains soil series that display similar characteristics. These include the Arnold Series, the Santa Ynez, Santa Lucia, and Reliz Series, and the Narlon Series. These soils, in combination with local microclimate conditions, are selective factors that affect the upland plant and animal associations present in the Planning Area.[2]

Habitat Types

Due to the nature and diversity of the soils and specific climactic factors within the Planning Area, the inland habitats support many rare and endemic special status plant and wildlife species. In addition, the region is the southern and northernmost range for many of the state's flora and fauna, creating a diverse and complex mosaic of biotic communities. As shown in Figure 3.4-1, habitat types within the Planning Area include primarily Monterey pine forest, oak woodland, grassland, urban forest, chaparral and scrub, coastal foredune, and central dune scrub. Each of these habitat types are detailed below:[3]

Monterey Pine Forest

Monterey pine (*Pinus radiata*) forests are recognized as a unique and dominant feature within the Planning Area. It exists in only three native stands in California: Point Año Nuevo, Cambria, and the Monterey Peninsula. There are three relatively large and healthy stands of Monterey pine forest in the Planning Area: Huckleberry Hill Nature Preserve, the Old Capitol Site (adjacent to the southern side of Highway 1), and along the ridge that forms the southern boundary of the Planning Area (from Highway 1 to the eastern side of Jack's Peak Regional Park). This species also occurs in mixed stands through the Planning Area. The understory of the Monterey pine forest can support a diverse group of flowering plants and ferns.

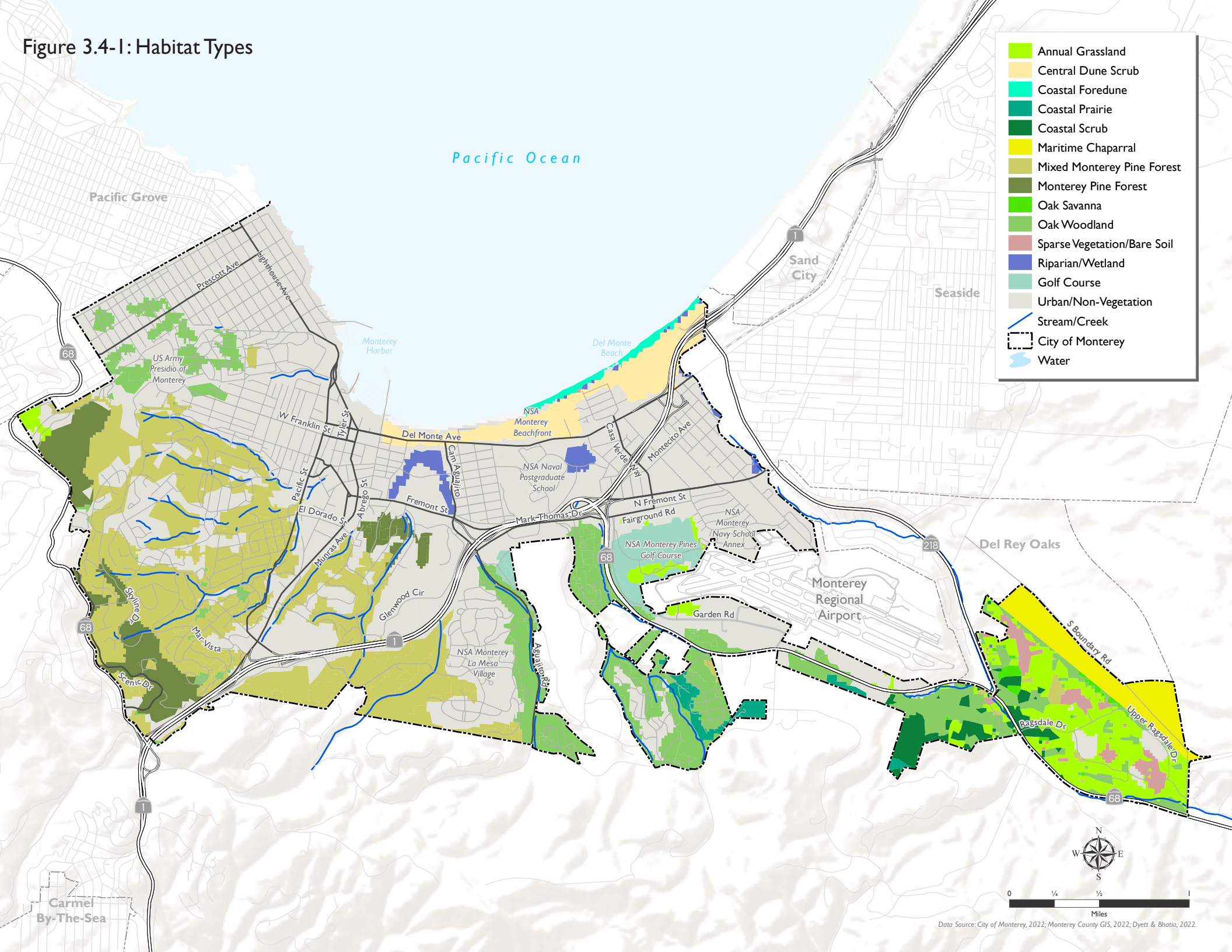
Relatively undisturbed Monterey pine forests provide roosting sites, nesting sites, escape cover, migration and dispersion corridors, and foraging habitat for wildlife species. Much of the Monterey pine forest has been urbanized. Urbanization has resulted in a low native species population and diversity, and a high population of species able to adapt to the urban environment. A fungal pathogen called pine pitch canker (*Fusarium moniliforme subglutinans*) is a disease that currently threatens the existing Monterey pine forest.

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[2] Ibid.

[3] Ibid.

Figure 3.4-1: Habitat Types



Oak Woodland

Oak woodland is the most abundant habitat type within the Planning Area. Oak woodland habitats within the Planning Area consist almost entirely of Coast live oak (*Quercus agrifolia*). This is a widespread species, occurring in a fifty-mile swath inland. Oak woodlands provide important nesting, roosting, and foraging habitat for a large number of small birds, raptors and bats, as well as a variety of common mammals, and several species of reptiles and amphibians.

Much of California's oak woodlands have been removed and the remaining stands are under pressure from development and agriculture. In recent years a large numbers of Coast live oaks in several coastal counties of California and southern Oregon have been dying from a pathogen referred to as sudden oak death syndrome. However, there have been no confirmed cases within the City of Monterey. Oak savannas occur where the oaks are more widely spaced due a combination of lack of available moisture, and low-intensity frequent fires.

Urban Forest

An urban forest stand is a former natural forest stand that is now adjacent to or in association with developed areas. Urban forest stands can also occur in vacant lots, greenbelts, and city parks. These stands are generally one to 20 acres in size and represent fragmented forest areas. Dominant native tree species within the urban forest habitat are Coast live oak, Monterey cypress (*Cupressus macrocarpa*) and Monterey pine. California buckeye (*Aesculus californica*), eucalyptus (*Eucalyptus sp.*), and acacia (*Acacia sp.)* are less dominant. The understories in the centers of urban forests or in well managed, relatively undisturbed urban forests are often more similar to the natural forest understory. Common wildlife species that occur within the urban forests are those that are adapted to heavily disturbed and developed areas, including striped skunk (*Mephitis mephitis*), raccoons (*Procyon lotor*), western scrub jay (*Aphelocoma californica*), Pacific chorus frogs (*Pseudachris regilla*), and black-tailed deer (*Odocoileus hemionus columbianus*).

Grasslands

The majority of the grasslands found within the Planning Area are dominated by annual invasive species. Grasslands provide marginal habitat for a variety of birds, small mammals, predatory animals such as foxes, reptiles, and raptors. Both the valley needlegrass grassland and the coastal prairie occur within the Planning Area. Some types of grasslands may occur adjacent to each other and share common species. In the eastern portion of the Planning Area, south of Highway 68, large areas of native perennial grassland have existed historically.

Chaparral

Moderate to low growing evergreen and drought resistant shrubs with scattered trees and patchy herbaceous communities characterizes chaparral. Maritime chaparral occurs in areas where coastal fog and moderate temperatures effectively improves available moisture. Soft-leafed, drought deciduous shrubs dominate coastal sage scrub. Chaparral typically requires more moisture than coastal sage scrub. Chaparral and coastal sage scrub typically form on shallow soils, along dry rocky slopes and ridges or relic sand dunes. Chaparral supports a great diversity of wildlife species. Examples include birds, small mammals, and predators such as gray fox (*Urocyon cinereoargenteus*). Maritime chaparral is very limited in its distribution within the Planning Area and occurs primarily in the Highway 68 and Fort Ord area.

Coastal Foredunes

The coastal foredune habitat occupies the active sands between the mean high tide and the more stabilized back dunes. It contains variable associations of low-growing herbaceous species and grasses in moving and recently stabilized dunes near the shoreline. Plant cover is less than ten percent. Generally, there are only five or so plant species that occupy this habitat, and usually only one or two are dominant. Few animals rely completely on the coastal dunes for their survival, but many species utilize them. Wildlife species in the coastal foredune habitat include a variety of shorebirds and invertebrates - many of the same species, which occur in the sandy beach intertidal habitat.

Coastal Prairie

California coastal prairie, also known as northern coastal grassland, is a grassland plant community of California and Oregon in the temperate grasslands, savannas, and shrublands biome. This ecosystem is found along the Pacific Coast, from as far south as Los Angeles in Southern California to southern Oregon. It typically stretches as far inland as 100 km and occurs at altitudes of 350 m or lower.

This ecosystem can also be characterized by topographic features including sea bluffs, uplifted grassy bald hills, hillside slopes, lowland grasslands, and coastal marine terraces. Coastal prairies are home to many grassland-dependent mammals, birds, insects, and reptiles including elk, badgers, pocket gophers, grasshopper sparrows, savannah sparrows, meadowlarks, red-tail hawks, white-tail kites, golden eagles, western fence lizards, skinks, rare butterflies and moths, and a variety of other insects.

Central Dune Scrub

The central dune scrub is densely vegetated habitat consisting of low or erect woody shrubs on stable dunes with herbaceous species in the open areas. The central dune scrub has greater plant density, more cover, more species, and woodier species when compared to coastal fore dunes. The central dune scrub habitat is listed as high priority for inventory in the California Natural Diversity Data Base (CNDDB).

A variety of species commonly occur within this habitat, including several special-status species. The variety of wildlife species in the central dune scrub is relatively low, but include special-status wildlife species. The central dune scrub is also listed as a high priority habitat for inventory in the CNDDB by CDFW.

Special-Status Species

Special-status species are defined as:

- Species that are listed as threatened or endangered under the U.S. Fish and Wildlife Service (USFWS) Endangered Species Act or designated as candidates for listing;
- Species that are listed as rare (plants), threatened, or endangered under the California Department of Fish and Wildlife (CDFW) California Endangered Species Act or designated as candidates for listing;
- Wildlife species designated as species of special concern or fully protected by the CDFW;
- Plant species with a California Rare Plant Rank (CRPR), designated as List 1A, List 1B, List 2, and List 3 by the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California, online edition;
- Species that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA) (under CEQA Guidelines Section 15380, a species not included on any formal list "shall nevertheless be considered rare or endangered if the species can be shown to meet the criteria" for listing); and/or
- Bat species ranked by the Western Bat Working Group as species with a "moderate" or "high" designation status under CEQA.[4]

Information regarding the occurrences of special-status species in the vicinity of the Planning Area was obtained from a query of the CDFW's California Natural Diversity Database (CNDDB). The CNDDB is regularly updated to track occurrences of previously documented special-status species; however, it contains only those records that have been submitted to CDFW. Therefore, there may be additional occurrences of special-status species within the area that have not yet been surveyed and/or mapped. A lack of information in the CNDDB about a species or an area does not imply that the species does not occur or that there is a lack of diversity in that area.

Based on the records search, 26 special-status plant species and 13 special-status wildlife and fish species were identified as having the potential to occur in the Planning Area. The CNDDB is regularly updated to track occurrences of previously documented special-status species; however, it contains only those records that have been submitted to CDFW. Therefore, there may be additional occurrences of special-status species within the area that have not yet been surveyed

[4] Western Bat Working Group. 2017. Species Matrix, Based on the Western Bat Working Group Workshop Held in Reno, Nevada, February 9–13, 1998. Available: http://wbwg.org/matrices/species-matrix/. Accessed: May 27, 2021.

and/or mapped. A lack of information in the CNDDB about a species or an area does not imply that the species does not occur or that there is a lack of diversity in that area. In addition, species shown in Figure 3.4-2 have the potential to occur outside the area delineated in the figure.

Table 3.4-1: Special-Status Plant Species with the Potential to Occur in the Planning Area

Scientific Name	*Common Name*	*Status*[1]
Allium hickmanii	Hickman's onion	
Arctostaphylos hookeri ssp. hookeri	Hooker's manzanita	
Arctostaphylos montereyensis	Toro manzanita	
Arctostaphylos pajaroensis	Pajaro manzanita	
Arctostaphylos pumila	sandmat manzanita	
Castilleja ambigua var. insalutata	pink Johnny-nip	
Central Maritime Chaparral	Central Maritime Chaparral	
Chorizanthe pungens var. pungens	Monterey spineflower	FT
Clarkia jolonensis	Jolon clarkia	
Cordylanthus rigidus ssp. littoralis	seaside bird's-beak	SE, CRPR
Ericameria fasciculata	Eastwood's goldenbush	
Erysimum ammophilum	sand-loving wallflower	
Gilia tenuiflora ssp. arenaria	Monterey gilia	FE, ST
Horkelia cuneata var. sericea	Kellogg's horkelia	
Malacothamnus palmeri var. involucratus	Carmel Valley bush-mallow	
Microseris paludosa	marsh microseris	
Monardella sinuata ssp. nigrescens	northern curly-leaved monardella	
Monolopia gracilens	woodland woollythreads	
Pinus radiata	Monterey pine	
Piperia yadonii	Yadon's rein orchid	FE
Potentilla hickmanii	Hickman's cinquefoil	FE, SE
Rosa pinetorum	pine rose	
Stebbinsoseris decipiens	Santa Cruz microseris	
Trifolium buckwestiorum	Santa Cruz clover	

Table 3.4-1: Special-Status Plant Species with the Potential to Occur in the Planning Area

Scientific Name	*Common Name*	*Status*[1]
Trifolium polyodon	Pacific Grove clover	CRPR
Trifolium trichocalyx	Monterey clover	FE, SE

Notes:

[1] FP = state fully protected under Fish and Game Code; FE = federally listed as endangered under the Endangered Species Act (ESA); FT = federally listed as threatened under ESA; FC = a candidate for listing under ESA; SE = state listed as endangered under CESA; ST = state listed as threatened under CESA; SC = a candidate for listing under CESA; SSC = state Species of Special Concern; CRPR = California Rare Plant; SR = state listed as Rare pursuant to Native Plant Protection Act of 1977; ICP = California Terrestrial and Vernal Pool Invertebrates of Conservation Priority; WL= CDFW watch list

Source: CNDDB GIS Data, California Department of Fish and Wildlife, 2023

Table 3.4-2: Special-Status Animal Species with the Potential to Occur in the Planning Area

Scientific Name	*Common Name*	*Status*[1]
Anniella pulchra	Northern California legless lizard	SSC
Athene cunicularia	burrowing owl	SSC
Bombus occidentalis	western bumble bee	SC
Charadrius nivosus nivosus	western snowy plover	FT, SSC
Coelus globosus	globose dune beetle	
Coturnicops noveboracensis	yellow rail	SSC
Danaus plexippus plexippus pop. 1	monarch - California overwintering population	FC
Euphilotes enoptes smithi	Smith's blue butterfly	FE
Lasiurus cinereus	hoary bat	FE
Laterallus jamaicensis coturniculus	California black rail	ST, FP
Rana boylii pop. 6	foothill yellow-legged frog - south coast DPS	Proposed Federally Endangered, SE
Sorex ornatus salarius	Monterey shrew	SSC
Taxidea taxus	American badger	SSC

Table 3.4-2: Special-Status Animal Species with the Potential to Occur in the Planning Area

Scientific Name	*Common Name*	*Status*[1]

[1] FP = state fully protected under Fish and Game Code; FE = federally listed as endangered under the Endangered Species Act (ESA); FT = federally listed as threatened under ESA; FC = a candidate for listing under ESA; SE = state listed as endangered under CESA; ST = state listed as threatened under CESA; SC = a candidate for listing under CESA; SSC = state Species of Special Concern; CRPR = California Rare Plant; SR = state listed as Rare pursuant to Native Plant Protection Act of 1977; ICP = California Terrestrial and Vernal Pool Invertebrates of Conservation Priority; WL= CDFW watch list

Source: CNDDB GIS Data, California Department of Fish and Wildlife, 2023

Sensitive Habitats

Critical Habitat

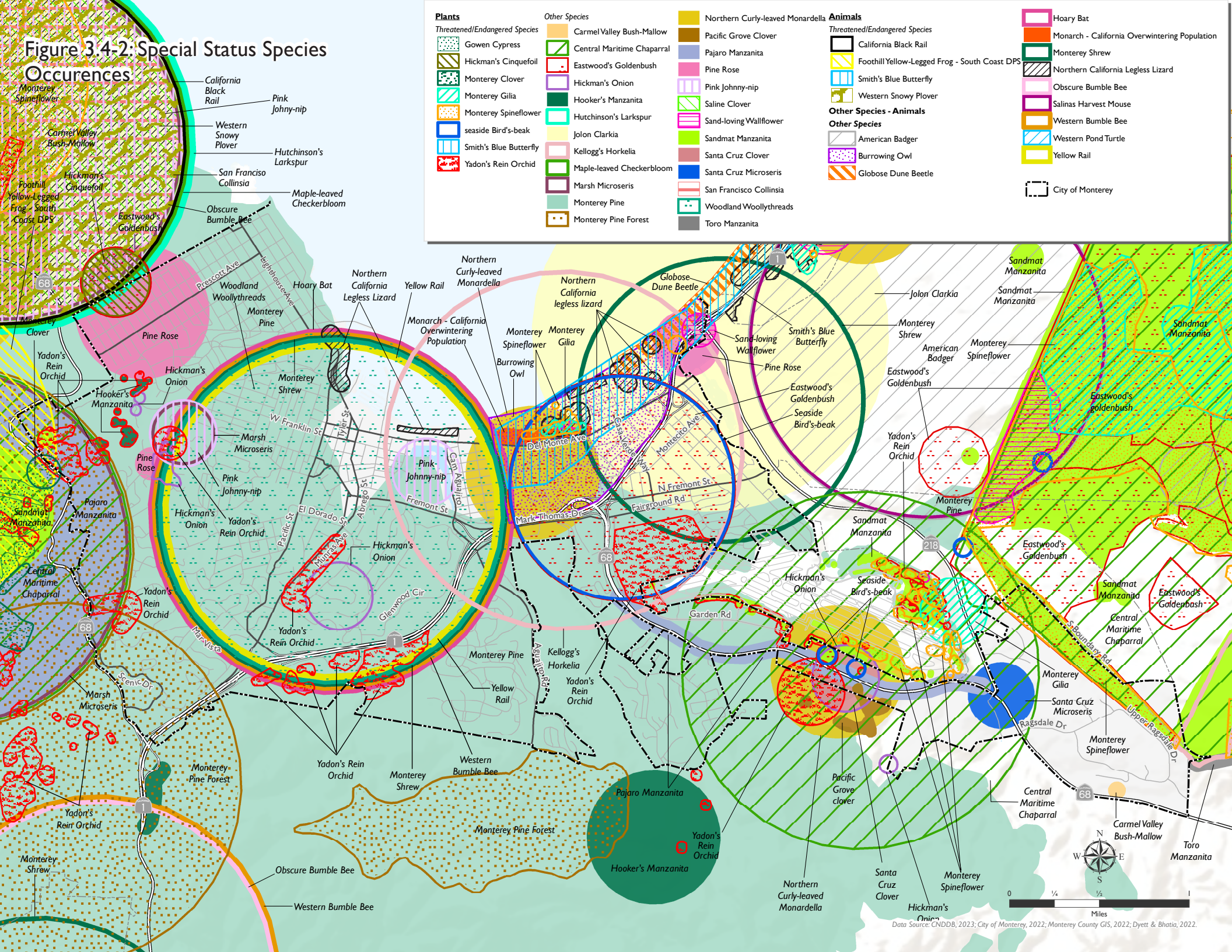
Critical habitat is defined by the federal Endangered Species Act as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and may require special management and protection. Western snowy plover critical habitat occurs along the coast of Monterey and Yadon's piperia critical habitat occurs in a small portion of Jacks Peak Park within Monterey, as designated by USFWS. No proposed sites for development overlap with designated critical habitat within the Planning Area. Critical habitat for Yadon's piperia also occurs just west of the City limits.

Wildlife and Habitat Connectivity

The California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California was designed to support land use planning and transportation. The report was produced by a multidisciplinary team of representatives from 62 agencies, along with a smaller technical advisory team and steering committee. The report includes a statewide essential habitat connectivity map, data collected to delineate areas shown on the map, recommendations for correcting the fragmentation caused by roads, and guidance for developing and implementing local and regional connectivity plans. Analysis was conducted to determine where mitigation would be most effective and how best to enhance connectivity while lessening vehicle/wildlife collisions.[5]

[5] Spencer, W.D., P. Beier, K. Penrod, K. Winters, C. Paulman, H. Rustigian-Romsos, J. Strittholt, M. Parisi, and A. Pettler. 2010. California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California. Prepared for California Department of Transportation, California Department of Fish and Game, and Federal Highways Administration.

Figure 3.4-2: Special Status Species Occurences



The Planning Area has limited habitat connectivity, as indicated by CDFW's Biogeographic Information and Observations System Habitat Connectivity Viewer and shown in Figure 3.4-3.[7] However, Garden Road/Airport/Highway 68 and Ryan Ranch/Fort Ord sites do fall under Areas of Conservation Emphasis (ACE) and are designated as 'Connections with Implementation Flexibility'. Further, these same sites also fall under California Essential Habitat Connectivity (CEHC) areas as designated by CDFW. In addition, there are several CEHC small natural areas located throughout the Planning Area that overlap with several proposed sites for development.

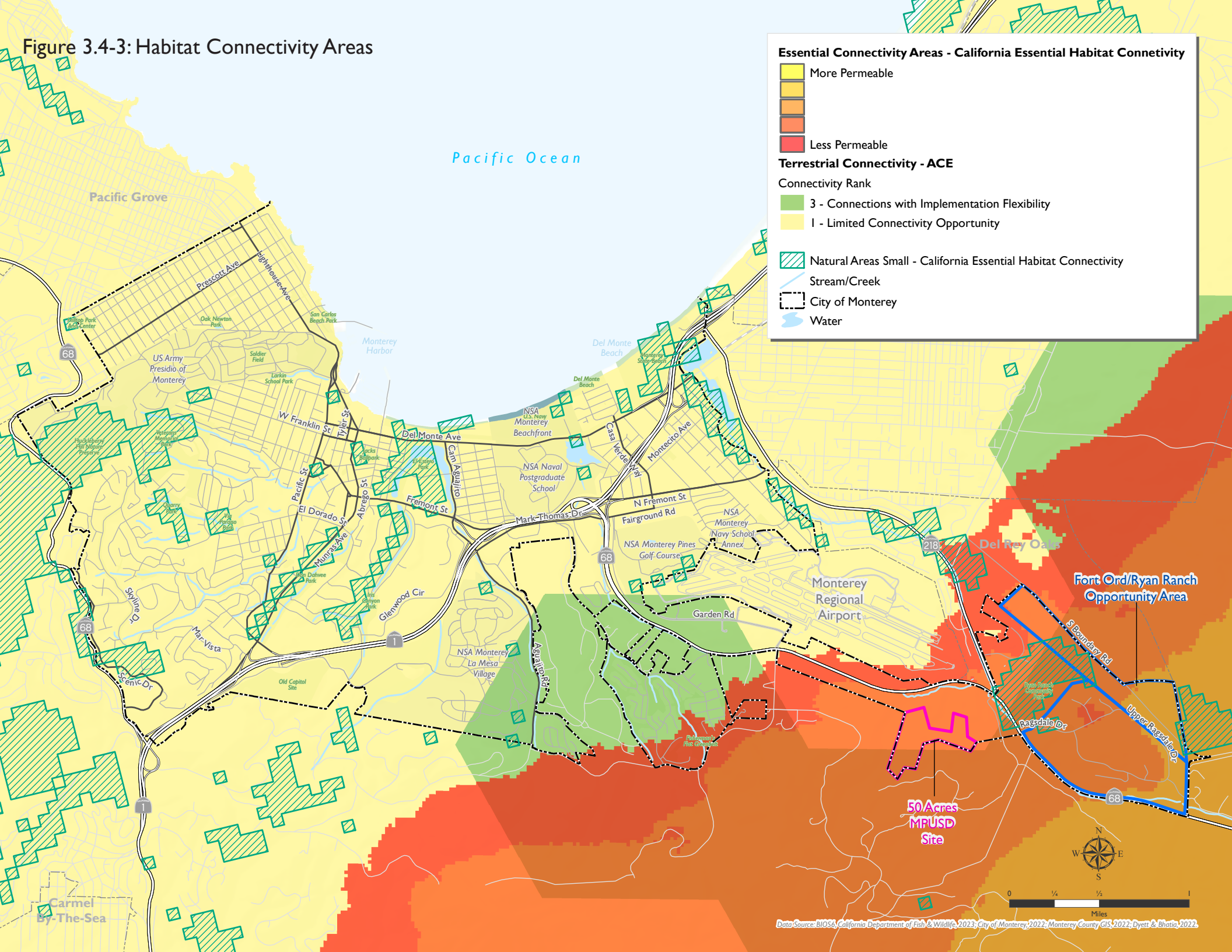
Wetlands and Other Waters

There are wetlands and other waters within the Planning Area. Wetlands are areas where water covers the soil or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season. Water saturation (hydrology) largely determines how the soil develops and the types of plant and animal communities living in and on the soil. Wetlands may support both aquatic and terrestrial species. The prolonged presence of water creates conditions that favor the growth of specially adapted plants (hydrophytes) and promote the development of characteristic wetland (hydric) soils. Other waters encompass feature types that contain or convey water, including marine, estuarine, riverine, and lacustrine features. Wetlands and other waters provide a multitude of ecological, economic, and social benefits. They provide habitat for fish, wildlife, and plants; allow for groundwater recharge; reduce flooding; and support cultural and recreational activities.

As discussed within the Regulatory Setting section below, technical standards for delineating wetlands and other waters have been developed by the U.S. Army Corps of Engineers (USACE) and the USFWS. Based on existing information from the USFWS National Wetlands Inventory (2021), there are riverine (other water) features within the Planning Area. The Planning Area is dissected by a number of small creeks and streams that flow directly or indirectly to Monterey Bay. Lake El Estero and Del Monte Lake are the two largest surface water bodies in the city, while Laguna Grande and Roberts Lake, located in the City of Seaside, border the northern Planning Area boundary. Lake El Estero and Del Monte Lake are receiving bodies for several of the streams that flow through the city. Historically, these estuary systems varied from a tidally influenced marine system to a brackish water lake. These features support (or have the potential to support) seasonal wetland vegetation within their beds and riparian vegetation along their banks; however, this does not preclude future identification of wetlands during site-specific studies.

[7] California Department of Fish and Wildlife. n.d. Biogeographic Information and Observation System. Version 5.96.99. Available: https://apps.wildlife.ca.gov/bios/?bookmark=648. Accessed: May 28, 2021.

Figure 3.4-3: Habitat Connectivity Areas



Data Source: BIOS6, California Department of Fish & Wildlife, 2023; City of Monterey, 2022; Monterey County GIS, 2022; Dyett & Bhatia, 2022.

REGULATORY SETTING

Federal Regulations

Federal Endangered Species Act

USFWS and the National Marine Fisheries Service (NMFS) administer the federal Endangered Species Act (FESA). FESA requires each agency to maintain lists of imperiled native species and affords substantial protections to these "listed" species. NMFS' jurisdiction under FESA is limited to the protection of marine mammals, marine fishes, and anadromous fishes; all other species are subject to USFWS jurisdiction.

USFWS and NMFS may "list" a species if it is endangered (at risk of extinction throughout all or a significant portion of its range) or threatened (likely to become endangered within the foreseeable future). Section 9 of FESA prohibits the "take" of any wildlife species listed as endangered and most species listed as threatened. Take, as defined by FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct." Harm is defined as "any act that kills or injures the species, including significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering" (50 Code of Federal Regulations 17.3).

FESA includes exceptions to general take prohibition that allow an action to be carried out, despite the fact that the action may result in take of listed species where conservation measures are included for the species. Section 7 of FESA provides an exception for actions authorized (e.g., under a Section 404 permit), funded, or carried out by a federal agency, and Section 10 provides an exception for actions that do not involve a federal agency.

Federal Clean Water Act, Section 404

The Clean Water Act (CWA) is the primary federal law that protects the quality of the nation's waters, including wetlands, lakes, rivers, and coastal areas. Section 404 of the Clean Water Act regulates the discharge of dredged or fill material into the waters of the United States, including wetlands. The Clean Water Act holds that all discharges into the nation's waters are unlawful unless specifically authorized by a permit; issuance of such permits constitutes its principal regulatory tool.

The USACE is authorized to issue Section 404 permits, which allow the placement of dredged or fill materials into jurisdictional waters of the United States under certain circumstances. The USACE issues two types of permits under Section 404: general permits, which are either nationwide permits or regional permits, and standard permits, which are either letters of permission or individual permits. General permits are issued by the USACE to streamline the Section 404 permitting process for nationwide, statewide, or regional activities that have minimal direct or cumulative environmental impacts on the aquatic environment. Standard permits are issued for activities that do not qualify for a general permit because they may have more than a minimal adverse environmental impact.

Federal Clean Water Act, Section 401

Under the Clean Water Act Section 401, applicants for a federal license or permit to conduct activities that may result in the discharge of a pollutant into waters of the United States must obtain certification from the State in which the discharge would originate. Therefore, all projects that have a federal component and may affect State water quality, including projects that require federal agency approval, such as issuance of a Section 404 permit, must also comply with Clean Water Act Section 401 and the State's Porter-Cologne Water Quality Control Act. In California, Section 401 certification is handled by the nine Regional Water Quality Control Boards (RWQCBs) and the State Water Resources Control Board (SWRCB). The City of Monterey falls under the jurisdiction of the Central Coast RWQCB. The Central Coast RWQCB must certify that the discharge will comply with State water quality standards and other requirements of the Clean Water Act.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA), as amended, implements various treaties and conventions between the United States and Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Under the MBTA, taking, killing, or possessing migratory birds is unlawful, as is taking of any parts, nests, or eggs of such birds (16 United States Code 703). Take is defined more narrowly under the MBTA than under FESA and includes only death or injury involving individuals of a migratory bird species or its eggs. As such, take under the MBTA does not include the concepts of harm and harassment, as defined under FESA.

Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord (1997)

The Installation-Wide Multispecies Habitat Management Plan (HMP) for Former Fort Ord was signed into effect by the U.S. Army Corps of Engineers in 1997 to promote the preservation, enhancement, and restoration of habitat and populations of HMP species while allowing development of properties that promotes economic recovery after closure of Fort Ord. It provides management guidelines and specifications for all parcels on the 28,000-acre Fort Ord property, a portion of which is within the Planning Area. The HMP identifies the following principal management categories:

- Habitat Reserve - no development allowed; management goal is conservation and enhancement of threatened and endangered species;
- Habitat Corridor - land between major reserve areas; to be managed to promote connections between conservation areas;
- Development with Reserve Areas or Development with Restrictions - lands slated for development that contain inholdings of reserve or require specific restrictions to protect biological resource values; management of reserve inholdings must match that for habitat reserves, while management in developable areas must proceed with certain specific restrictions identified in this HMP;

- Borderland Development Areas Along NRMA Interface - area abutting the Natural Resource Management Area that are slated for development; management of these lands includes no restrictions except along the development/reserve interface;
- Development - no management restrictions are contained in the HMP; some plans for salvage of biological resources from these lands may be specified; and
- Future Road Corridors - lands with habitat reserve set aside for future road development; to be managed as habitat reserve unit road development occurs.

The HMP Map for Former Fort Ord, updated in 2005, shows that the majority of land on the property that is within the Planning Area is within the Development category, with a portion in the northwest of the Fort Ord/Ryan Ranch opportunity area identified as Habitat Reserve.

State Regulations

California Endangered Species Act

Administered by the CDFW, the California Endangered Species Act (CESA) prohibits the take of listed species and also species formally under consideration for listing in California, referred to as *candidate species*. Under CESA, "take" means "hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill." (California Fish and Game Code Section 86.) Under this definition, in contrast to FESA, CESA does not prohibit "harm" to a listed species. Furthermore, take under CESA does not include "the taking of habitat alone or the impacts of the taking." However, the killing of a listed species that is incidental to an otherwise lawful activity and not the primary purpose of the activity constitutes take under CESA. CESA does not protect insects but, with certain exceptions, does prohibit take of plants on private land.

Natural Community Conservation Planning Act

The Natural Community Conservation Planning Act was enacted to implement broad-based planning and provide effective protection and conservation of California's wildlife heritage while allowing appropriate development and growth. The Natural Community Conservation Planning Act does not focus on only listed species. It is broader in its orientation and objectives compared with FESA and CESA. The Natural Community Conservation Planning Act encourages local, State, and federal agencies to prepare comprehensive conservation plans that maintain the continued viability of species and biological communities that have been affected by human changes to the landscape. The Natural Community Conservation Planning Act provides for incidental take authorization such that covered activities resulting in incidental take of listed species may be carried out without violating CESA. Permits issued under the Natural Community Conservation Planning Act can also be broad and may include both listed species and non-listed species.

State Fish and Game Code, Sections 1600–1616

The CDFW has jurisdictional authority over streams and lakes, as well as wetland resources associated with these aquatic systems, under California Fish and Game Code Section 1600 et seq. The CDFW has the authority to regulate work that will "substantially divert or obstruct the natural

flow of, or substantially change or use any material from, the bed, channel, or bank of any river, stream, or lake or deposit or dispose of debris waste or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake" (California Fish and Game Code Section 1602.). An entity that proposes to carry out such an activity must first inform the CDFW. Where the CDFW concludes that the activity will "substantially adversely affect an existing (2014) fish or wildlife resource," the entity proposing the activity must negotiate an agreement with the CDFW that specifies terms under which the activity may be carried out in a way that protects the affected wildlife resource.

Porter-Cologne Water Quality Control Act

California Water Code Section 13260 requires "any person discharging waste, or proposing to discharge waste, in any region that could affect the waters of the State to file a report of discharge (an application for waste discharge requirements [WDRs])." Under the Porter-Cologne Water Quality Control Act definition, *waters of the State* are "any surface water or groundwater, including saline waters, within the boundaries of the State." Although all waters of the United States that are within the borders of California are also waters of the State, the reverse is not true. Accordingly, California retains authority to regulate discharges of waste into any waters of the State, regardless of whether the USACE has concurrent jurisdiction under CWA Section 404. If USACE determines that a wetland is not subject to regulation under Section 404, CWA Section 401 water quality certification is not required. However, the RWQCB may impose WDRs if fill material is placed into waters of the State.

California Native Plant Protection Act

The California Native Plant Protection Act of 1977 (CNPPA) prohibits importation of rare and endangered plants into California, take of rare and endangered plants, and the sale of rare and endangered plants. CESA defers to the CNPPA, which ensures that State-listed plant species are protected when State agencies are involved in projects subject to CEQA. In that case, plants listed as rare under the CNPPA are not protected under CESA but rather under CEQA.

Local Regulations

City of Monterey General Plan 2005 (General Plan)

The City of Monterey General Plan 2005 (General Plan) includes the following goals and policies associated with biological resources:

Conservation Element

Goal b. Protect creeks, lakes, wetlands, beaches, and Monterey Bay from pollutants discharged to the storm drain system.

Policy b.1. Continue public education and outreach programs to eliminate use of storm drains for dumping hazardous or inappropriate wastes, such as used motor oil.

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.

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.

Policy b.4. Retain and restore wetlands, riparian areas, and other habitats, which provide remediation for degraded water quality.

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.

Policy d.1. Protect existing native plants and promote the use of locally occurring, native vegetation for public and private landscaping and revegetation efforts.

Program d.1.1. Develop a public education program promoting the use of native plants 69 and addressing major plant diseases. The materials shall include a list of recommended species for planting and the California Exotic Pest Plant list, and shall address prevention and management strategies for vegetation pathogens such as pitch canker and sudden oak disease.

Policy d.2. Discourage the use of plant species on the California Exotic Pest Plant Council lists.

Program d.2.1. Discourage the use of invasive plant species (those listed on Exotic Pest Plant List A and B within publicly owned and within moderate- and high-value habitats (see map); and those listed on List A in any location) by public and private entities in landscape planting plans submitted for review.

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.

Policy d.4. Protect and manage habitats that support special-status species, are of high biological diversity, or are unusual or regionally restricted. Prepare biotic reports or habitat management plans as needed to ensure protection of habitat values.

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.

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.

Program d.6.1. Prepare a Monterey Pine Management Plan for the Monterey pine forest existing in the City. The goal of this plan is to prevent further genetic contamination and preserve the health and viability of the forest.

Program d.6.2. Prepare a Dune and Beach Restoration and Management Plan. This plan will provide a long-term strategy to retain or improve the condition of this resource within the dunes and beaches.

Program d.6.3. Prepare a Riparian and Stream Corridor Restoration and Management Plan. The plan should coordinate efforts between the various government agencies and property owners.

Program d.6.4. Consider developing a habitat impact mitigation fee to restore high-value biological areas.

Program d.6.5. Provide information to the public about special-status species and the habitats that support them.

Program d.6.6. Proceed with Master Plan for Ed Ricketts Underwater Park.

Open Space Element

Goal a. Preserve the Monterey Bay as the City's most significant natural resource.

Policy a.1. Support industries that contribute to the appreciation of the Monterey Bay's resources, including, but not limited to, the commercial fishing industry and research activities, and tourism.

Policy a.2. Protect the marine habitats of Monterey Bay in cooperation with State and Federal agencies.

Policy a.3. Protect the views into Monterey Bay

Goal b. Recognize the importance of the shoreline and beaches in providing access to the Monterey Bay as well as preserving specific areas for habitat conservation.

Policy b.1. Maintain the City shoreline and beaches for recreation use and support facilities.

Policy b.2. Preserve the City's active use areas adjacent to the Monterey Bay, including, but not limited to, the wharves, boat access facilities, and piers.

Policy b.3. Support Navy and other efforts to restore the dunes adjacent to Del Monte Avenue for habitat conservation purposes, including the Navy property east of Sloat Avenue.

Policy b.4. Protect views of the Monterey Bay from Monterey Bay and Shoreline Parks

Policy c.1. Maintain greenbelts as open space.

Policy c.2. Coordinate with the County to preserve greenbelts, which form the backdrop of Monterey.

Policy c.3. Work with the County and others to preserve Monterey Pines where possible.

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, Laguna Grande, Washerwoman's Pond, and Lagunita Mirada as visual open space features.

Policy d.2. Recognize that Del Monte Lake is a key entrance feature into the City of Monterey and work with U.S. Naval Postgraduate School to remove physical and visual barriers to the lake.

Policy d.3. Maintain the lakes and waterways as flood control features for the City.

Policy d.4. Protect native plants, animals, and native habitats in Lake El Estero, Del Monte Lake, and Laguna Grande.

Policy d.5. Continue to support and enhance the public use of the City's lakes. Manage nonnative wildlife such as Canadian Geese.

Policy d.6. Continue to allow active recreational use of the lakes.

Policy d.7. Work with the City of Seaside to preserve and enhance Roberts Lake and Laguna Grande.

Goal e. Ensure streams continue to function as natural flood control channels and habitat for native plants and animals.

Policy e.1. Maintain the City's streams by controlling erosion.

Policy e.2. Restore vegetation adjacent to streams with native plants to ensure a balanced ecosystem (which may include removal of non-native species).

Policy e.3. Encourage pedestrian access along streams where appropriate.

Urban Design Element

Goal a. Balance natural resources and public use of the shoreline and Bay, based on natural features, historic setting, maritime activities, and public access.

Policy a.1. Conserve and enhance the environment of the beaches and sand dunes as natural attractions, and improve public access consistent with dune preservation goals. Integrate the beaches and dunes into a continuous natural setting.

Policy a.2. Develop for active park and beach use, but minimize parking and building intrusion into the park. Marina, Shoreline Park, Wharves, and Breakwater

Policy a.3. Retain active waterfront activities, including commercial and sport fishing, working wharves, boat access, and boat repair, which show Monterey's historic interface with the Bay. Maintain a natural appearance and maritime use of the water's edge.

Policy a.4. Keep random mooring concept intact in the outer harbor because of its special scenic value.

Policy a.5. Do not overcrowd the harbor with boat slips and moorings. A limited number of boat slips and moorings are appropriate where they help maintain the visual qualities of the maritime setting. San Carlos Beach Park.

Policy a.6. Maintain views, active park use, and the rocky shoreline at San Carlos Beach Park. Cannery Row.

Policy a.7. Protect the rugged coastline and open up the view to the water and rocky shore as much as possible while also respecting historic resources and building footprints over the water, as noted in the Cannery Row Local Coastal Program.

Policy a.8. Preserve and maintain the natural environment of the Ed Ricketts underwater park and tidelands.

Policy a.9. Enhance the visual qualities of the Monterey Bay Coastal Trail. Preserve and enhance views from the Trail to natural features as much as possible and encourage access from the trail to the Bay.

Goal b. 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.1. The visual skyline and foothills beyond the city limits should be under the City's control. One method of achieving this would be annexation. The City should engage in active collaboration with other governmental agencies and advocate for preservation of the forested areas.

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.3. Trees in forested areas should be preserved, and denuded areas should be reforested where feasible.

Policy b.4. Foothill areas can be preserved by allowing low-density development, or clustered development with open space.

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.

Goal c. 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.

Goal d. Maintain lakes and waterways, and natural drainage.

Policy d.1. Discourage proliferation of surface parking and other hard surface, man-made improvements at Lake El Estero.

Policy d.2. Coordinate with the Naval Postgraduate School to allow use of Del Monte Lake as an historic public view and recreation resource.

Policy d.3. Coordinate with the City of Seaside to assure that Roberts Lake and Laguna Grande remain as marsh habitat and scenic resources for both Seaside and Monterey.

Monterey City Code

Chapter 31.5, Article 2 of the City Code is Monterey's Urban Storm Water Quality Management and Discharge Control Ordinance. The purpose of this ordinance is to protect and enhance water bodies in a manner pursuant to and consistent with federal and state legislation. Section 31.5-18 outlines watercourse protection measures. Watercourse protection shall be identified in the development planning stage of real property by the person or entity owning the property through which a watercourse passes, in order to retain creeks, wetlands, and riparian areas that provide habitat, and to remediate degraded water quality. Such considerations include, but are not limited to, preservation and setbacks from creeks, wetlands, and riparian habitats in compliance with applicable local, state, and federal laws and regulatory permit authorities.

Chapter 37, the Preservation of Trees and Shrubs Ordinance, is intended to preserve Monterey's image of a small-scale residential community beside the Bay, framed by a forested hill backdrop and drawing its charm from a rich historical background, certain commercial enterprises, and natural scenic beauty. Trees within the city significantly contribute to this image. The Preservation of Trees and Shrubs Ordinance is intended to assure preservation of trees and replacement of trees when removal is unavoidable.

All public or private construction projects requiring acquisition of a building permit shall comply with the tree protection guidelines established by the City in order to safeguard and protect any trees affected by said construction (Ord. 3424 § 13, 2009).

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, it shall be unlawful to damage or remove, or to cause the damage or removal of, any tree in the public right-of-way 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. (Ord. 3424 § 13, 2009),).

The "local landmark tree" category establishes a process for reviewing and recommending trees that should be protected and preserved because of their outstanding size, prominence, and/or health. Setback variations and variance applications are considered to assist preservation where landmark trees may constrain reasonable development of permitted uses. Existing development on similar sites in the same zone and having similar topographic and vegetation characteristics shall be considered when determining reasonable development on property containing landmark trees. Local landmark trees may be removed in situations where the tree is determined to be unhealthy, present a safety hazard, or prevents reasonable development of permitted uses on the property as set forth in Paragraphs 37-10 and 37-11 within chapter 37 of the City Code.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if the Proposed Plan would:

Criterion 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, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;**

Criterion 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;**

Criterion 3: **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;**

Criterion 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;**

Criterion 5: **Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or**

Criterion 6: **Conflict with the provisions of an adopted habitat conservation plan, Habitat Conservation Plan, community conservation Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.**

METHODOLOGY AND ASSUMPTIONS

The Proposed Plan's Planning Area was compared against existing biological conditions to determine potential impacts on biological resources that could result from implementation of the Proposed Plan. No field studies or other research were conducted for preparation of this Draft EIR because existing resources contained information on all pertinent aspects of biological resources in the Planning Area at an appropriate level of detail for a program-level environmental assessment. The CDFW submitted comments regarding baseline natural resource information and special-status species that are known to occur or have the potential to occur in or near the Planning Area which informed the analysis. Information regarding the occurrences of these special-status species within the boundaries of the Planning Area was obtained from a query of the CDFW's California Natural Diversity Database (CNDDB). Future project-specific detailed biological surveys may be necessary to confirm the presence or absence of sensitive resources on future development sites. Impacts associated with future development as a result of the Proposed Plan implementation are analyzed qualitatively at a program level.

RELEVANT PROPOSED GOALS AND POLICIES

The Proposed Plan contains the following goals and policies relevant to biological resources. The full text of proposed Housing Element programs is included in Appendix B for reference:

Housing Element

Housing Goal #1. Increase housing supply and facilitate production of at least 3,654 new homes by 2031.

Policy 1.3 Recognizing that infill development alone will not be sufficient to meet the City's RHNA obligations, plan holistically to integrate new housing in context sensitive ways on larger vacant properties in the southeast of Monterey to take advantage of opportunities where they exist.

Program 1-H Fort Ord/Ryan Rach Specific Plan.

Program 1-I Highway 68 Area Plan Update.

IMPACTS

Impact 3.4-1 Implementation of the Proposed Plan would not have a substantial adverse effect, either directly or through habitat modifications, on 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. (*Less than Significant with Mitigation Incorporated*)

A range of special-status species have been documented in and around the Planning Area, as described above in the Environmental Setting and listed in Tables 3.4-1 and 3.4-2. The extent of existing development and human activity within the Planning Area limits the potential for special-status species occurrence. Areas that may provide habitat for special-status species are located primarily in the open space and undeveloped habitat types, including in Monterey pine forest, oak woodland, grasslands, coastal dune scrubs, and chaparral areas.

As shown in Tables 3.4-1 and 3.4-2, there are 26 special-status plant species and 13 special-status wildlife species with potential to occur within the Planning Area. However, buildout of the Proposed Plan would focus future development and redevelopment primarily into previously developed areas of Monterey. Many of the special-status species with potential to occur in the Planning Area, including seven plant species and six animal species, have not been documented on or near the Proposed Plan's sites identified for housing development. As shown in Figure 3.4-1, only a select number of special-status species have been documented on or near the Proposed Plan's sites identified for housing development. These species include seven animal species which are the hoary bat, Monterey shrew, western bumble bee, yellow rail, burrowing owl, Northern California legless lizard, Smith's blue butterfly, and 19 plants species which are the Kellogg's horkelia, woodland woollythreads, Jolon clarkia, Monterey pine, seaside bird's-beak, Eastwood's goldenbush, Pajaro manzanita, Central Maritime Chaparral, Hickman's onion, marsh microseris, pink Johnny-nip, Yadon's rein orchid, pine rose, Monterey gilia, Hickman's cinquefoil, sandmat manzanita, Monterey spineflower, Toro manzanita, and northern curly-leaved monardella.

Implementation of the Proposed Plan would focus future development and redevelopment primarily in previously developed portions of the city, limiting the potential for significant adverse impacts on special-status species and sensitive natural communities. However, given the extent of biological resources throughout the community, future development under the Proposed Plan could have a significant direct or indirect impact on special-status species if it would result in the removal or degradation of the species or suitable habitat. If future development were to substantially degrade or remove suitable habitat for special-status species or result in adverse

impacts on special-status individuals, there could be significant impacts on special-status species. This could occur because of construction activities or from ongoing operation and/or maintenance of a project.

The General Plan Conservation Element outlines requirements for development to conserve, manage, and restore habitats for endangered species, and protect biological diversity represented by special-status plant and wildlife species (Goal d). Specifically, policies d.1 and d.3 require the protection of existing native plants and sensitive habitat. Policy d.4 requires the protection and management of habitats that support special-status species, are of high biological diversity, or are unusual or regionally restricted. Developments must prepare biotic reports or habitat management plans as needed to ensure protection of habitat values. Policy d.5 requires the reduction of 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. As mitigation for significant impacts, avoidance, replacement, restoration of habitats on- or off-site, or other measures may be required. These policies and regulations would serve to reduce impacts on special-status species and their habitats.

To further address potential impacts to special status species, **Mitigation Measure BIO-1**, which would require site assessments by a qualified professional for development applications that may adversely affect sensitive biological resources, is required. **Mitigation Measure BIO-2** would require implementation of a worker environmental awareness training program to train construction staff on the needs of protecting sensitive biological resources and the ramifications for not complying with applicable laws. **Mitigation Measure BIO-3** would require the installation of temporary flagging or barrier fencing to protect sensitive biological resources adjacent to the work area as warranted based on the findings of the site assessment completed pursuant to Mitigation Measure BIO-1. Further, **Mitigation Measures BIO-4 through BIO-12** outline additional construction requirements to ensure the protection of special-status plant species, nesting bird species, bat species, the burrowing owl, Western bumble bee, Northern California legless lizard, Smith's blue butterfly, Monterey shrew, and the American badger, as warranted based on the findings of the site assessment. Therefore, with implementation of **Mitigation Measures BIO-1 through BIO-12** and adherence to existing policies and local regulations, as discussed above, the impacts of future development under the Proposed Plan on special-status species would be less than significant.

Mitigation Measures

MM-BIO-1: **Conduct Preconstruction Surveys for Special Status Species.** Prior to ground-disturbing activities and during the appropriate identification periods for special-status plants and wildlife listed in Tables 3.4-1 and 3.4-2, project applicants proposing development on sites with the potential for special-status species to occur shall engage a qualified biologist with prior experience conducting surveys for subject species in Monterey County to conduct field surveys within work areas and the immediately adjacent areas to determine the presence of habitat for

special-status plant and wildlife species. The field surveys are to be conducted when special-status species that could occur in the area are evident and identifiable, generally during the blooming or breeding period. For special-status plants, field surveys shall be conducted by a qualified botanist following the "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities".." One or more surveys shall be conducted as needed to account for different special-status species identification periods. The results of field surveys shall be summarized in an accompanying report documenting all proposed work areas and the presence or absence of any sensitive resources that could be affected by development. Additionally, the report shall outline where species and/or habitat-specific mitigation measures (as required under Mitigation Measures BIO-2 through BIO-12) are required. This report will provide the basis for any applicable permit applications and consultations with regulatory agencies where incidental take may occur.

MM-BIO-2: **Worker Environmental Awareness Training Program.** If it is established pursuant to Mitigation Measure BIO-1 that special status species occur on the site, prior to the issuance of grading or building permits, and for the duration of construction activities, the project proponent shall demonstrate that it has in place a Construction Worker Environmental Awareness Training Program for all construction workers at the project site. All construction workers shall attend the Program prior to participating in construction activities. The Program shall be developed and conducted by a qualified biologist with experience in Monterey County. The training may be presented in video form. The Program shall include:

- Information on the life history of wildlife and plant species that may be encountered during construction activities and legal protection status of each species;
- The definition of "take" under the Federal Endangered Species Act and the California Endangered Species Act;
- Measures the project proponent/operator is implementing to protect the species; and
- Specific measures that each worker shall employ to avoid take of wildlife species, and penalties for violation of the Federal Endangered Species Act or California Endangered Species Act.

MM-BIO-3: **Install Temporary Flagging or Barrier Fencing to Protect Sensitive Biological Resources Adjacent to the Work Area.** If required pursuant to Mitigation Measure BIO-1, a qualified biologist with prior experience for subject species in Monterey County shall identify and flag or fence sensitive biological habitat on-site to ensure it is avoided during construction and pre-construction activities. Flagging or fencing shall be installed prior to site preparation activities and remain in place for the duration of construction activities.

MM-BIO-4: **Avoid and Minimize Disturbance to Special-Status Plant Species.** If necessary pursuant to the results of surveys conducted under Mitigation Measure BIO-1, the work area shall be modified to the extent feasible to avoid indirect or direct impacts on special-status plants. Special-status plant species shall be avoided whenever possible by delineating and observing a no disturbance buffer of at least 50 feet from the outer edge of the plant population(s) or specific habitat type(s) required by special status plant species. If complete avoidance of special-status plants is not feasible, at a minimum the special-status plant species shall be relocated on-site, at least 20 feet away from construction directly relating to the project. All site preparation, seed/cutting/root collection, grow-out, and plant installation shall be conducted by a landscape company approved by the City of Monterey with experience working on restoration projects and within the habitats present on-site. Following the relocation, the plantings/seedings shall be monitored annually for five years or longer by a botanist paid for and hired by the Project proponent to determine the success of the relocation. For individual plants, success criteria is the establishment of new viable occurrences equal to or greater in number than the number of plants impacted, for at least three years without supplemental care such as watering. On-site maintenance of the relocated plants shall be contracted to a landscaping company which will also be paid for and hired by the Project proponent. An annual report by a botanist detailing the success of the relocation shall be drafted and submitted to all responsible agencies (e.g., CDFW, USFWS) for their review. If success criteria are not met, management of the relocated plants will be modified as needed, but management and reporting shall continue until success criteria are met.

MM-BIO-5: **Avoid and Minimize Disturbance to Nesting Bird Species.** If required pursuant to Mitigation Measure BIO-1, a qualified biologist paid for and hired by the applicant shall conduct preconstruction surveys for active nests no more than 10 days prior to the start of ground or vegetation disturbance to maximize the probability that nests that could potentially be impacted are detected. Surveys should also cover a sufficient area around each future project site to identify nests and determine their status. A sufficient area means any area potentially affected by a project. In addition to direct impacts (i.e., nest destruction), noise, vibration, and movement of workers or equipment could also affect nests. Prior to initiation of construction activities, a qualified biologist shall conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, a qualified biologist shall continuously monitor nests to detect behavioral changes resulting from each future project. If behavioral changes occur, all work will be halted causing that change and consultation with CDFW will be conducted for additional avoidance and minimization measures.

If continuous monitoring of identified nests by a qualified biologist is not feasible, then a minimum no-disturbance buffer of 250 feet around active nests of non-listed

bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors will be implemented. These buffers shall remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or on-site parental care for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the construction areas would be concealed from a nest site by topography. A qualified biologist shall advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

MM-BIO-6: **Disturbance to Bat Species.** If required pursuant to Mitigation Measure BIO-1, a qualified biologist paid for and hired by the applicant shall conduct preconstruction surveys for bats which shall take place during the maternity roosting season (defined as: April 1 through August 31) within riparian habitat and any old wooden buildings within a project site. Surveys shall be conducted no less than 14 days prior to removal of trees, snags, or buildings within the project area. Ultrasonic acoustic surveys and/or other site appropriate survey method may be performed to determine the presence or absence of bats utilizing the project site as roosting or foraging habitat. Additionally, the following measures shall be implemented to lessen impacts to bats:

a) If special-status bat species are detected during surveys, species and roost specific mitigation measures shall be developed by the qualified biologist. Such measures may include postponing removal of trees, snags, or structures until the end of the maternity roosting season or construction of species appropriate roosting habitat within, or adjacent to the project site.
b) Trees, snags, and buildings may be removed outside of the maternity roosting season without performing preconstruction bat surveys.
c) Felled trees shall remain on the ground for 24 hours prior to being removed or chipped.
d) For all buildings to be demolished, internal entrance surveys shall be performed by a qualified bat biologist no less than 14 days prior to demolition to determine if buildings currently or previously support roosting bats. If bats are determined to be present, appropriate methods shall be used to exclude bats from the building. Such methods may include installation of one way "valves" to allow bats to exit, but not allow them to reenter the building.
e) If an identified maternity roost location is removed, species and roost appropriate mitigation shall be developed in consultation with CDFW. Mitigation shall include at minimum the replacement of a suitable roost structure within or immediately adjacent to the project site, such that

similar structure shape and thermal properties are met with the replacement roost.

f) If no active roosts are identified, then work may commence as planned. Survey results are valid for 30 days from the survey date. Should work commence later than 30 days from the survey date, surveys should be repeated. No preconstruction bat surveys are required for work conducted between the hibernation season and maternity season (i.e., September 1 through October 31).

MM-BIO-7: **Disturbance to Burrowing Owl.** If feasible, construction-related ground disturbance activities shall begin outside of the burrowing owl nesting season (February 1 through August 31) and during construction the site shall be maintained in a manner that is inhospitable to burrowing owl such as keeping the site free of vegetation, ground squirrel control, and maintaining regular site disturbance by construction equipment and personnel. This will discourage burrowing owls from occupying the project site. If feasible, decommissioning-related ground disturbing activities shall begin outside of the burrowing owl nesting season (February 1 through August 31).

If required pursuant to Mitigation Measure BIO-1, a qualified biologist paid for and hired by the applicant shall conduct preconstruction surveys no more than 14 days prior to initiation of ground disturbing activities of the project site and surrounding areas to 150 meters in accordance with the methods outlined in the CDFW Staff Report on Burrowing Owl Mitigation (2012) or most recently adopted guidance. The first preconstruction survey will cover all areas within 150 meters of the portion of the site in which construction is scheduled to start. Surveys will be phased based on the construction schedule such that the surveys are conducted no more than 14 days ahead of the start of ground disturbance in new areas. If no occupied breeding or wintering owl burrows are identified, no further mitigation will be required. If occupied burrows are identified on the site or within 150 meters, one of the following actions shall be taken: (1) permanent avoidance of the burrow or (2) establishment of a temporary avoidance buffer followed by passive relocation and compensatory mitigation for loss of habitat in conjunction with the measures below:

- If an occupied wintering burrow is discovered during preconstruction surveys, a 50-meter buffer area shall be established around the burrow until the owl leaves on its own (if the burrow is more than 50 meters off-site and/or more than 50 meters from the work area, no buffer is necessary). Ground-disturbing work conducted during the nonbreeding (winter) season (September 1 to January 31) can proceed near the occupied burrow so long as the work occurs no closer than 50 meters to the burrow, and the burrow is not directly affected by the project activity. A smaller

buffer may be established in consultation with CDFW and monitored at the discretion of a qualified biologist. If the 50-meter buffer cannot be maintained for the duration of occupancy by the owl, owls may be excluded from an occupied wintering burrow in accordance with the conditions of the project's Burrowing Owl Exclusion Plan, which will be submitted for approval by CDFW prior to passive relocation of any burrowing owls.

- If an occupied nesting burrow is discovered during preconstruction surveys, an avoidance buffer of 200 meters shall be established around the burrow location and maintained until a qualified biologist has determined that the nest has fledged or is no longer active (a 200-meter avoidance buffer is appropriate for low intensity impacts near nesting burrows during breeding season [CDFW 2012]). No project activities shall take place within the 200-meter buffer during the time in which it is in place. A smaller buffer may be established in consultation with CDFW and monitored at the discretion of a qualified biologist.
- If an occupied burrow cannot be avoided, and the burrow is not actively in use as a nest, a 200-meter buffer shall be established until the burrowing owls can be excluded from burrows in accordance with the project's Burrowing Owl Exclusion Plan, which will be submitted for approval by CDFW prior to passive relocation of any burrowing owls. The Burrowing Owl Exclusion Plan is based on the recommendations made in the Staff Report on Burrowing Owl Mitigation (CDFW 2012) or most recently adopted guidance and shall include the following information for each proposed passive relocation:
    - Confirmation by site surveillance that the burrow(s) is empty of burrowing owls and other species;
    - Type of scope to be used and appropriate timing of scoping;
    - Occupancy factors to look for and what shall guide determination of vacancy and excavation timing;
    - Methods for burrow excavation;
    - Removal of other potential owl burrow surrogates or refugia on-site;
    - Methods for photographic documentation of the excavation and closure of the burrow; and
    - Monitoring of the site to evaluate success and, if needed, to implement remedial measures to prevent subsequent owl use to avoid take. Methods for assuring the impacted site shall continually be made inhospitable to burrowing owls and fossorial mammals.

If an occupied burrow is identified off-site within 150 meters and passive exclusion is deemed necessary to protect the owls, burrowing owls may be excluded from burrows if permission is granted by the landowner, and in accordance with the project's Burrowing Owl Exclusion Plan, which will be submitted for approval by CDFW prior to passive relocation of any burrowing owls. If burrowing owls cannot be excluded from an off-site burrow and it is not feasible to maintain an avoidance buffer as stated above, coordination will be conducted with CDFW to determine appropriate measures to minimize impacts to off-site burrowing owls. Such measures could include, but are not limited to: (1) installation of barriers between the construction or decommissioning area and the occupied burrows to block noise and views of construction or decommissioning equipment and personnel, and (2) regular monitoring by a qualified biologist to determine if construction or decommissioning activities are resulting in disturbance of the owls that could lead to nest abandonment or harm to adult owls or their young. If such disturbance was occurring, the biological monitor would have the authority to halt construction activities until further modifications could be made to avoid disturbance of the owls.

If burrowing owl pairs are passively relocated, compensatory mitigation for lost wintering/breeding habitat shall be provided either through dedication of 6 acres of suitable habitat (per pair of relocated owls) at an off-site location in accordance with the conditions of the project's Burrowing Owl Exclusion Plan or through purchase of credits at a CDFW-approved mitigation bank in the region. No compensatory mitigation is required for passive relocation or eviction of transient, unpaired owls.

If permanent avoidance buffers are established, such areas shall be managed for the duration of the project to preserve current values as foraging habitat for burrowing owl. Management shall include: (1) exclusion of all project activities throughout the construction, operation, and decommissioning phases, including staging, parking, driving, or dumping; (2) vegetation management by grazing or mowing to preserve open, low-growing vegetation; (3) fencing to discourage human incursion; (4) signage identifying the area as a biologically sensitive area managed for burrowing owl, and; (5) a worker education and awareness program for all personnel working on the site including contractors and sub-contractors.

MM-BIO-8: **Disturbance to Western Bumble Bee.** If required pursuant to Mitigation Measure BIO-1, a qualified biologist paid for and hired by the applicant shall conduct a take avoidance survey for active bumble bee colony nesting sites in any previously undisturbed area no more than 14 days prior to each phase of construction, if the work will occur during the flying season, generally between March 1 and September 1.

The surveys shall occur when temperatures are above 60 degrees Fahrenheit (°F), on sunny days with wind speeds below 8 miles per hour, and at least 2 hours after sunrise and 3 hours before sunset. Surveyors shall conduct transect surveys focusing on detection of foraging bumble bees and underground nests using visual aids such as binoculars. If no western bumble bees or potential western bumble bees are detected, no further mitigation is required. If potential western bumble bees are seen but cannot be identified, the applicant shall obtain authorization from CDFW within 14 days prior to groundbreaking to use nonlethal netting methods to capture bumble bees to identify them to species. If protected bumble bee nests are found, they shall be protected in place until they are no longer active as determined by a licensed entomologist. Survey results, including negative findings, shall be submitted to CDFW and the City prior to groundbreaking within 14 days of completing the take avoidance survey.

MM-BIO-9: **Disturbance to Northern California Legless Lizard.** If the Northern California Legless Lizard is identified as occurring or having potential to occur in the project area pursuant to Mitigation Measure BIO-1, then the following measures will be implemented:

Immediately prior to ground disturbing activities, a qualified biologist paid for and hired by the applicant will conduct a clearance survey in suitable habitat within the project work area for Northern California legless lizards. The project biologist may establish Wildlife Exclusion Fencing (WEF) to keep the species from entering the work area. If the Northern California legless lizard is observed during construction, measures will be taken to avoid the individual(s) and the species will be allowed to leave on its own volition or will be relocated outside of the work area by the project biologist. Clearance surveys will be conducted daily unless the project biologist determines that the surveys are no longer necessary.

MM-BIO-10: **Disturbance to Smith's Blue Butterfly.** If the Smith's blue butterfly is identified as occurring or having potential to occur in the project area pursuant to Mitigation Measure BIO-1, then the following measures will be implemented:

- Project areas within the range of these species will be surveyed by a qualified biologist paid for and hired by the applicant for seacliff buckwheat (*Eriogonum latifolium*), the butterfly's host plant.
- Host plants within the occupied habitat will be marked with high visibility flagging, fencing, or stakes, and no construction activities will occur within 10 feet of these plants.
- If complete avoidance of the host plant is not feasible, then the species shall be relocated on-site pursuant to the requirements outlined in Mitigation Measure BIO-4.

MM-BIO-11: **Disturbance to Monterey Shrew.** If required pursuant to Mitigation Measure BIO-1, immediately prior to ground disturbing activities in or adjacent to Monterey shrew habitat, a qualified biologist paid for and hired by the applicant shall conduct a clearance survey to identify and relocate any individuals within proposed work areas. Any individuals located during the survey shall be allowed to leave the work area on their own. All sightings of Monterey shrew shall be reported to the California Natural Diversity Database.

MM-BIO-12: **Disturbance to American Badger.** If required pursuant to Mitigation Measure BIO-1, a qualified biologist paid for and hired by the applicant shall conduct preconstruction surveys for American badger no more than 14 days prior to the beginning of ground disturbance related to construction and decommissioning activities to determine if there are any American badger dens on the project site. If there are no American badger dens on the project site, no further mitigation is necessary. If American badger dens are located within the work area and cannot be avoided, a qualified biologist will determine if the dens are occupied. If unoccupied, the dens will be collapsed under the supervision of the biologist. If occupied, the biologist will determine if it is a natal/pupping den or a solitary badger den. Dens of solitary badger may be collapsed under the supervision of the biologist once the animal has vacated the den. Natal/pupping dens will be avoided by establishment of an exclusion zone around the den determined by the qualified biologist until the young are old enough to leave the den and survive on their own.

Significance after mitigation: Less than significant

Impact 3.4-2 Implementation of the Proposed Plan would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. (*Less than Significant*)

As noted above in the Environmental Setting, the Planning Area includes riparian habitat located along a number of small creeks and streams that flow directly or indirectly to Monterey Bay, which is considered a sensitive natural community and habitat for sensitive wildlife species located throughout the Planning Area. Implementation of the Proposed Plan could have a significant impact on riparian habitat or other sensitive natural communities if future development under the Proposed Plan results in the removal or degradation of the habitat.

As discussed under Impact 3.4-1, implementation of the Proposed Plan would focus future development and redevelopment primarily into previously developed areas of the city, limiting the potential for disruption to undeveloped habitat areas. In addition, areas with sensitive natural communities, such as riparian/wetlands and USFWS-designated critical habitat, are located primarily in the open space designations for the Planning Area and do not overlap with proposed sites for development. Therefore, implementation of the Proposed Plan would generally not result

in the degradation or removal of any riparian or other sensitive habitat identified within the Planning Area.

Further, the City of Monterey General Plan and City Code include policies and regulations that aim to minimize or avoid adverse effects from development that is adjacent to riparian areas and sensitive natural communities. General Plan Conservation Element policies b.1 through b.4. aim to protect creeks, lakes, wetlands, beaches, and Monterey Bay from pollutants discharged to the storm drain system. Specific strategies include minimizing particulate matter pollution with erosion and sediment control in waterways and on construction sites, minimizing development or removal of vegetation on areas particularly susceptible to erosion, requiring programs to minimize erosion when development occurs in these areas, and retaining and restoring wetlands, riparian areas, and other habitats.

General Plan Open Space Element Policy a.2 requires the protection of the marine habitats of the Monterey Bay. Policy b.3 requires efforts to restore the dunes adjacent to Del Monte Avenue for habitat conservation purposes and Policy c.1 maintains greenbelts as open space. Further, polices d.1 through d.4 require the continued preservation of lakes in the Planning Area while protecting native plants, animals, and native habitats adjacent to these water resources. Similarly, policies e.1 and e.2 maintain the city's streams by controlling erosion and restore vegetation adjacent to streams with native plants to ensure a balanced ecosystem. Further, Section 31.5-18 of the Monterey City Code requires that watercourse protection measures be identified in the development planning stage of real property by the person or entity owning the property through which a watercourse passes, in order to retain creeks, wetlands, and riparian areas that provide habitat, and to remediate degraded water quality. Such considerations include, but are not limited to, preservation and setbacks from creeks, wetlands, and riparian habitats in compliance with applicable local, state, and federal laws and regulatory permit authorities.

Therefore, with implementation of these policies and adherence to local regulations, as discussed above, the impacts of future development under the Proposed Plan on riparian habitat or sensitive natural communities would be less than significant.

Mitigation Measures

None required.

Impact 3.4-3 Implementation of the Proposed Plan would not have a substantial adverse effect on State or federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal areas, etc.) through direct removal, filling, hydrological interruption, or other means. (*Less than Significant*)

As described in the Environmental Setting, the USFWS National Wetlands Inventory (2021) listed riverine (other water) features within the Planning Area. The Planning Area is dissected by a number of small creeks and streams that flow directly or indirectly to Monterey Bay. These features

support (or have the potential to support) seasonal wetland vegetation within their beds and riparian vegetation along their banks and are considered federally protected, as defined by Section 404 of the Clean Water Act. Implementation of the Proposed Plan could have a significant impact on federally protected wetlands if future development under the Proposed Plan results in the direct removal, filling, hydrological interruption, or otherwise degradation of the habitat.

As discussed under Impact 3.4-1, future development under the Proposed Plan would take place primarily in previously developed areas of the city, which limits the potential for disruption to undeveloped wetland habitat in the Planning Area. Development within the Coastal Zone is also regulated through the California Coastal Act, which guides how the land along the coast of California is developed or protected from development. The Act emphasizes the importance of the public being able to access the coast, and the preservation of sensitive coastal and marine habitat and biodiversity. It also dictates that development be clustered in areas to preserve open space, and that coastal agricultural lands be preserved.

Future development under the Proposed Plan would also be subject to the requirements of Clean Water Act Section 404 and 401 permitting requirements, which would limit and/or mitigate impacts from projects that would discharge pollutants or dredged or fill materials into waters of the state, including wetlands. Future development would also be subject to the CDFW Lake and Streambed Alteration Program, which would require any project that could substantially divert or obstruct the flow of, substantially change or use any material from, or deposit debris into a river, stream, or lake to agree to measures that would protect existing fish or wildlife resources.

Additionally, General Plan Open Space Element policies a.2, d.1, d,2, d.3, and e.1 require the protection and preservation of the marine habitats of Monterey Bay as well as the lakes, streams, and waterways in the Planning Area. Further, Conservation Element Policy b.4 requires the retainment and restoration of wetlands, riparian areas, and other habitats, which provide remediation for degraded water quality. In the General Plan Urban Design Element, Policy d.1 discourages proliferation of surface parking and other hard surface, man-made improvements at Lake Estero. In addition, Policy d.3 requires coordination with the City of Seaside to assure that Roberts Lake and Laguna Grande remain as marsh habitat and scenic resources for both Seaside and Monterey.

In addition, Chapter 31.5, Article 2 of the City Code requires the protection and enhancement of water bodies in a manner pursuant to and consistent with federal and State legislation. Watercourse protection shall be identified in the development planning stage of real property by the person or entity owning the property through which a watercourse passes, in order to retain creeks, wetlands, and riparian areas that provide habitat, and to remediate degraded water quality. Such considerations include, but are not limited to, preservation and setbacks from creeks, wetlands, and riparian habitats in compliance with applicable local, state, and federal laws and regulatory permit authorities. With implementation of these policies and adherence to local regulations, as discussed above, impacts of future development under the Proposed Plan would be less than

significant in regard to direct removal, filling, hydrological interruption, or other means of degradation of wetland habitat.

Mitigation Measures

None required.

Impact 3.4-4 Implementation of the Proposed Plan 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 native wildlife nursery sites. (*Less than Significant*)

The Planning Area is located largely in areas with limited opportunity for habitat connectivity, as indicated by CDFW's Biogeographic Information and Observations System (BIOS) Habitat Connectivity Viewer.[9] However, portions of the Fort Ord/Ryan Ranch opportunity area and the Highway 68 Area Plan area are within locations designated as having Connections with Implementation Flexibility, meaning they have connectivity importance, but have not been identified as channelized areas, species corridors, or habitat linkages. Generally, though, BIOS data indicates that the areas of Connections with Implementation Flexibility within the City are less permeable to wildlife and are not priority areas for habitat connectivity. In this area, Highway 68 and Highway 1 are significant existing barriers to wildlife migration. The Installation-Wide Multispecies Habitat Management Plan (HMP) for Former Fort Ord (1997) established three habitat corridors to provide avenues for wildlife and plant dispersal and genetic interchange among four larger habitat conservation within the 28,000-acre area of the former Fort Ord property. None of the habitat corridors are located within the Planning Area and the closest corridor is approximately 3 miles north of Ryan Ranch.

While the Proposed Plan would not involve development within any of the habitat corridors identified in the HMP and would only occur within locations identified as development areas in the HMP, development in the Fort Ord/Ryan Ranch opportunity area would occur adjacent to the North-South Road Conservation Area identified in the HMP and development on the 50-acre MPUSD site within the boundaries of the Highway 68 Area Plan would occur adjacent to a large area of natural open space. Development in these areas may result in disturbance to these movement habitats, causing fragmentation of wildlife movement corridors. However, Proposed Plan Programs 1-H and 1-I envision that new development would be integrated into portions of these areas while also preserving carefully selected areas of natural open space and habitat. Additionally, General Plan policies and City regulations adopted to preserve and protect movement through habitat in the wooded skyline, foothills, wooded canyons, lakes, streams, waterways, and

[9] California Department of Fish and Wildlife, Biogeographic Information and Observation System (BIOS), Essential Connectivity Areas - California Essential Habitat Connectivity (CEHC), accessed on December 20 at: https://apps.wildlife.ca.gov/bios6/?bookmark=648

greenbelts within the Planning Area would apply, reducing the potential impacts related to wildlife migration.

General Plan Urban Design Element policies b.2 through b.5 require new developments to be sensitively located to preserve the forest setting and not create obvious holes in the forest. Further, Policy b.4 ensures that foothills are preserved by allowing low-density development, or clustered development with open space. Policy h.1 requires significant natural features, including wildlife habitat and natural vegetation, within scenic corridors to be preserved under new development. Similarly, polices c.1 through c.3 in the Open Space Element require that future developments maintain greenbelts as open space and preserve Monterey Pines where possible. Policy g.2 also promotes linking open spaces to provide habitat connection.

In addition, the General Plan Conservation Element outlines requirements for development to conserve, manage, and restore habitats for endangered species, and protect biological diversity represented by special-status plant and wildlife species (Goal d). Specifically, policies d.1 and d.3 require the protection of existing native plants and sensitive habitat. Policy d.4 requires the protection and management of habitats that support special-status species, are of high biological diversity, or are unusual or regionally restricted. Developments must prepare biotic reports or habitat management plans as needed to ensure protection of habitat values. Policy d.5 requires the reduction of 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. Further, Policy d.6 outlines that 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. Development under the Proposed Plan would also be required to comply with the provisions of the Preservation of Trees and Shrubs Ordinance (Chapter 37), reducing the potential for loss of trees that provide nesting habitat for native wildlife—specifically, bats, and native resident and migratory birds. These policies and regulations would serve to reduce impacts on special-status species and their habitats.

In addition, as discussed under Impact 3.4-3, future development under the Proposed Plan would be subject to the requirements of Clean Water Act Section 404 and 401 permitting requirements, which would limit and/or mitigate impacts from projects that would discharge pollutants or dredged or fill materials into waters of the state, including wetlands. Future development would also be subject to the CDFW Lake and Streambed Alteration Program, which would require any project that could substantially divert or obstruct the flow of, substantially change or use any material from, or deposit debris into a river, stream, or lake to agree to measures that would protect existing fish or wildlife resources.

As such, future development within the Planning Area would be subject to the Proposed Plan's programs, local regulations, and General Plan goals and policies related to biological resources that involve preserving and protecting open space; preserving natural resources, including plant, animal, and fish habitats; protecting wetlands; and protecting and enhancing streams and creeks.

Compliance with these policies and regulations would ensure the preservation of natural resources in the Planning Area and impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.4-5 Implementation of the Proposed Plan would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (*Less than Significant*)

A significant impact would occur if the Proposed Plan would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. General Plan Urban Design Element Policy b.2 requires new developments preserve the city's forested setting while Policy b.3 requires that trees in forested areas be preserved, and denuded areas should be reforested where feasible. Policy g.5 requires the protection of existing Monterey cypress, Monterey pine, and Coast live oak trees in urban and historic contexts, replanting when removal is necessary, and retaining the health of the stands. Further, Conservation Element Policy d.1 requires the protection of existing native plants and promotes the use of locally occurring, native vegetation for landscaping and revegetation efforts. Policy d.5 requires the compliance of the City's Tree Ordinance as 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.

In the Monterey City Code, Chapter 37 is the City's Preservation of Trees and Shrubs Ordinance and the only local ordinance applicable to Impact 3.4-5. The ordinance is intended to assure preservation of trees and replacement of trees when removal is unavoidable. Compliance with the City's tree ordinance would help ensure that the impacts of the Proposed Plan on any local policies protecting biological resources would also be less than significant. For example, migratory birds are associated with areas with foraging, nesting, and roosting habitats present; as with most urbanized environments, landscape features within the Planning Area such as trees, shrubs, parklands, and human-built structures (e.g., bridges, buildings etc.) could serve as habitat for nesting or roosting birds.

Chapter 37 requires that 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 (Ord. 3424 § 13, 2009). Further, no person shall remove, damage or relocate, or cause to be removed, damaged or relocated, any tree on any private property within the city unless the City Forester has issued a permit. If it is determined after inspection of the property by the City Forester, Community Development Department, or Appeals Hearing Board that the adverse effects of tree removal can be mitigated, conditions may be imposed on the removal that can include replacement, payment in lieu of replacement, or maintenance and care programs. Development pursuant to the

Proposed Plan may need to trim, prune or remove trees; however, all development projects would be required to comply with the aforementioned policies and regulations. As a result, the Proposed Plan would not conflict with any local policies or ordinances protecting biological resources, and a less than significant impact would occur.

Mitigation Measures

None required.

Impact 3.4-6 Implementation of the Proposed Plan would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. *(Less than Significant Impact)*

A significant impact would occur if a project would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. There are no Habitat Conservation Plans in Monterey County.[10] The Installation-Wide Multispecies HMP for Former Fort Ord applies to the Fort Ord/Ryan Ranch opportunity area. As discussed above, the majority of land on the property that is within the Planning Area is within the Development category, where there are no management restrictions. A portion in the northwest of the Fort Ord/Ryan Ranch opportunity area identified as Habitat Reserve, where no development is allowed. Program 1-H in the proposed Housing Element would involve preparation of a specific plan to integrate mixed use development in a portion of the First Ord/Ryan Ranch opportunity area while also preserving carefully selected areas of natural open space and habitat. The specific plan and any subsequent development that it permits would be required to be consistent with the HMP, including its management guidelines and specifications. Therefore, no impact related to conflicts with the provisions of an adopted habitat conservation plan, natural community conservation plan would occur.

Mitigation Measures

None required.

[10] CDFW. 2021. Natural Community Conservation Planning (NCCP). California Regional Conservation Plans Map. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline>. Accessed: July 25, 2023.

3.5 Cultural and Tribal Cultural Resources

This section describes the environmental and regulatory setting for cultural and tribal cultural resources. It also describes impacts related to historic, archaeological, and tribal cultural resources (including human remains) that would result from implementation of the Proposed Plan and identifies mitigation for significant impacts where feasible and appropriate. Cultural resources refer broadly to prehistoric and historic buildings, structures, objects, districts, and sites exhibiting important historical, cultural, scientific, or technological associations. This definition extends to tribal cultural resources which refer to sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe. For the purposes of CEQA, cultural resources are separated into three subcategories: historical resources, archaeological resources, and Native American tribal resources and remains. Appendix C and D include relevant background materials related to cultural resources and tribal consultation, respectively.

There was one response to the Notice of Preparation (NOP) regarding topics covered in this section. The Native American Heritage Commission (NAHC) provided recommendations for conducting cultural resources assessments which have been incorporated into the following analysis.

Environmental Setting

GEOLOGIC SETTING

The Planning Area is underlain by a major geologic feature, the Salinian Block, which in turn is underlain by granitic basement rock. The Salinian Block is bounded on the northeast by the San Andreas Fault and on the southwest by the Palo Colorado-San Gregorio Fault. The block is approximately 50 miles wide and 300 miles long. The types of soils and geologic formations that underlie the city are varied, ranging from unconsolidated dune sands along Monterey Bay to exposed granite and sandstone.[1]

ETHNOGRAPHIC SETTING

At the time of Euro-American contact, the Native Americans that lived in the area were speakers of the Rumsen language, which is part of the Costanoan/Olhone language family (Levy 1978:485). The Native Rumsen people lived in the area for thousands of years before Euro-Americans landed on Monterey's shores. The mild weather of the Central Coast, along with the bounty of fish and wildlife at the Bay made this area an important part of Rumsen life. Several of their village sites have

[1] City of Monterey General Plan Update DEIR. July 14, 2004. Accessed: December 11, 2023. Available: https://files.monterey.org/Document%20Center/CommDev/Planning/General-Plan/20-General-Plan-DEIR.pdf.

been identified within the Planning Area and there are Native American resources within or adjacent to the Planning Area that are referenced in the ethnographic literature (Levy 1976, Howard 1979), notably in areas marginal to Monterey Bay and inland near intermittent and perennial watercourses and near areas populated by oak, buckeye, manzanita, and pine. Overall, there is a high potential for unrecorded Native American resources to be within the Planning Area.

HISTORIC SETTING

The Planning Area contains a rich array of historic resources that are significant in California, national, and international historic contexts. These include prehistoric settlements, the seat of Spanish and Mexican colonial government, the site of California's Constitutional Convention, development of California's worldwide tourism industry, and more than 200 years of West Coast military history. Much of the city's economic activity takes place in historic areas or areas with a significant number of historic buildings, including downtown, Cannery Row, Fisherman's Wharf (i.e., Wharf 1), the Presidio of Monterey, Naval Postgraduate School, and Custom House Plaza.

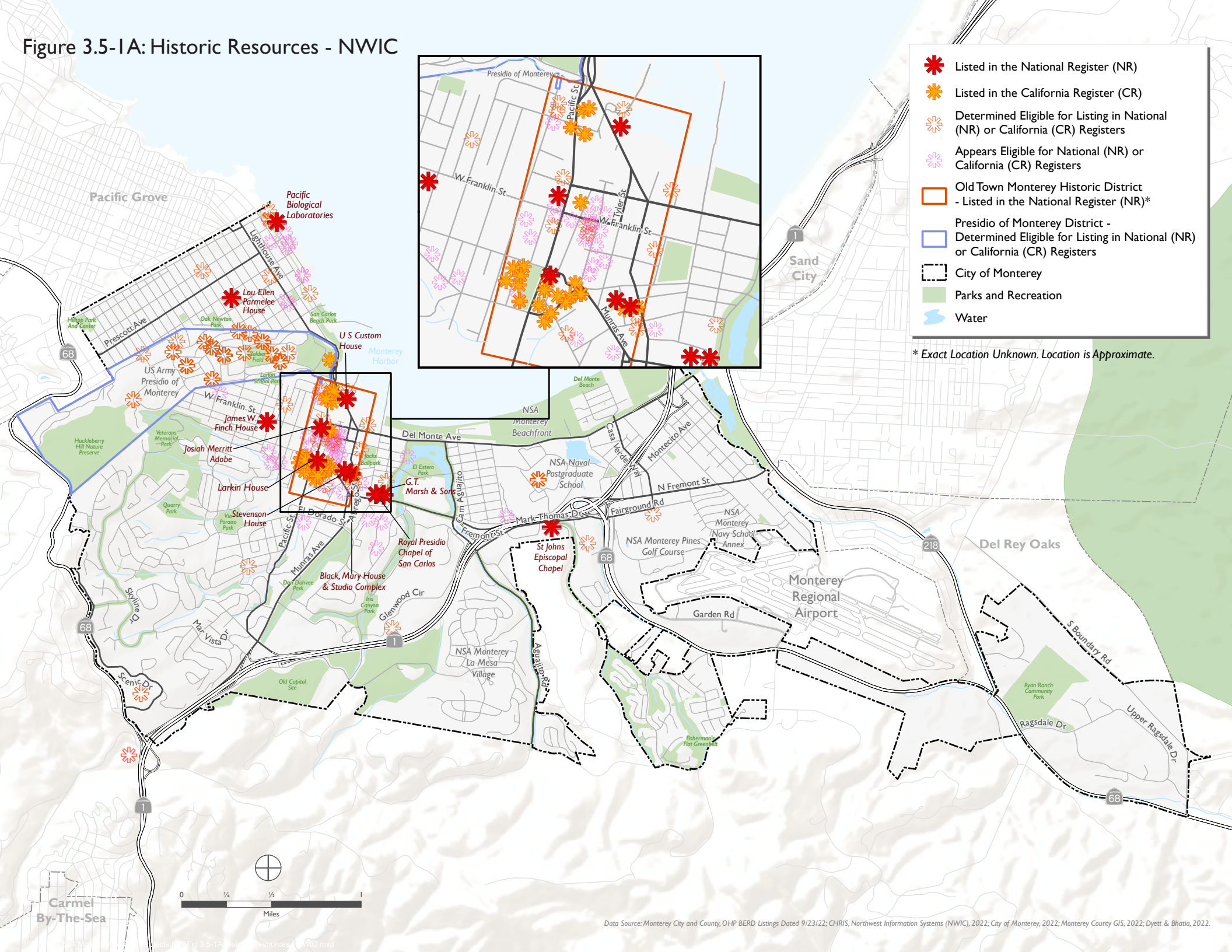
Cultural and Historic Resources

In order to determine the presence or absence of cultural and historical resources within the Planning Area and the surrounding vicinity, a records search and literature review was requested at the Northwest Information Center (NWIC), located at Sonoma State University. The purpose of this review was to access existing cultural resource survey reports, archaeological site records and historic maps, and evaluate whether any previously documented prehistoric or historic archaeological sites, architectural resources, cultural landscapes, or other resources exist within or near the town. Appendix C lists and describes all historic, archaeological, and tribal cultural resources NWIC identified in the Planning Area. A historic resource is a building, structure, object, prehistoric or historic archaeological site, or district possessing physical evidence of human activities over 50 years old. Historic resources are often designated and listed on the national, State, or a local register, making them eligible for certain protections or other benefits.

Nationally and State-Listed Resources

Early Monterey County maps indicated numerous buildings and structures, including bridges, piers or wharfs, a racetrack, railroads, and cemeteries within the Planning Area (1895 Monterey Sanborn Maps and 1913 Monterey USGS 15-minute topographic quadrangle). The State Office of Historic Built Environment Resources Directory (OHP BERD), which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places, lists 963 recorded buildings and structures within the Planning Area. Additionally, NWIC documents 202 recorded buildings and structures and four districts. The districts include the Presidio of Monterey, El Castillo (Old Presidio), Old Del Monte Hotel District, and Monterey Old Town. There are 34 bridges listed within the Planning Area. Figure 3.5-1A presents the locations of these resources along with their historic status. In addition to recorded resources, as yet unevaluated buildings and structures over 50 years in age within the Planning Area may also be of historic value.

Figure 3.5-1A: Historic Resources - NWIC



Locally-Designated Resources

There are 73 locally designated Monterey City Historic Properties as represented and listed in Figure 3.5-1B. Historic zoning has been applied to these properties (Chapter 38, Article 15 of the Monterey City Code). Any building, property or object with historic significance is eligible for historic zoning. To qualify as a historic property, a building must be at least 50 years old and must meet one or more of the following criteria for designation: a historic event, person, design or information potential. The purpose of the historic zoning is to preserve the exterior of designated buildings and in some cases to preserve building interiors. Some examples of these historic properties include civic buildings such as Colton Hall and many historic homes that now operate as museums such as the First Brick House and the Cooper Molera Adobe.

To aid in the identification of these properties, the following reports and studies have been conducted over the past twenty years:

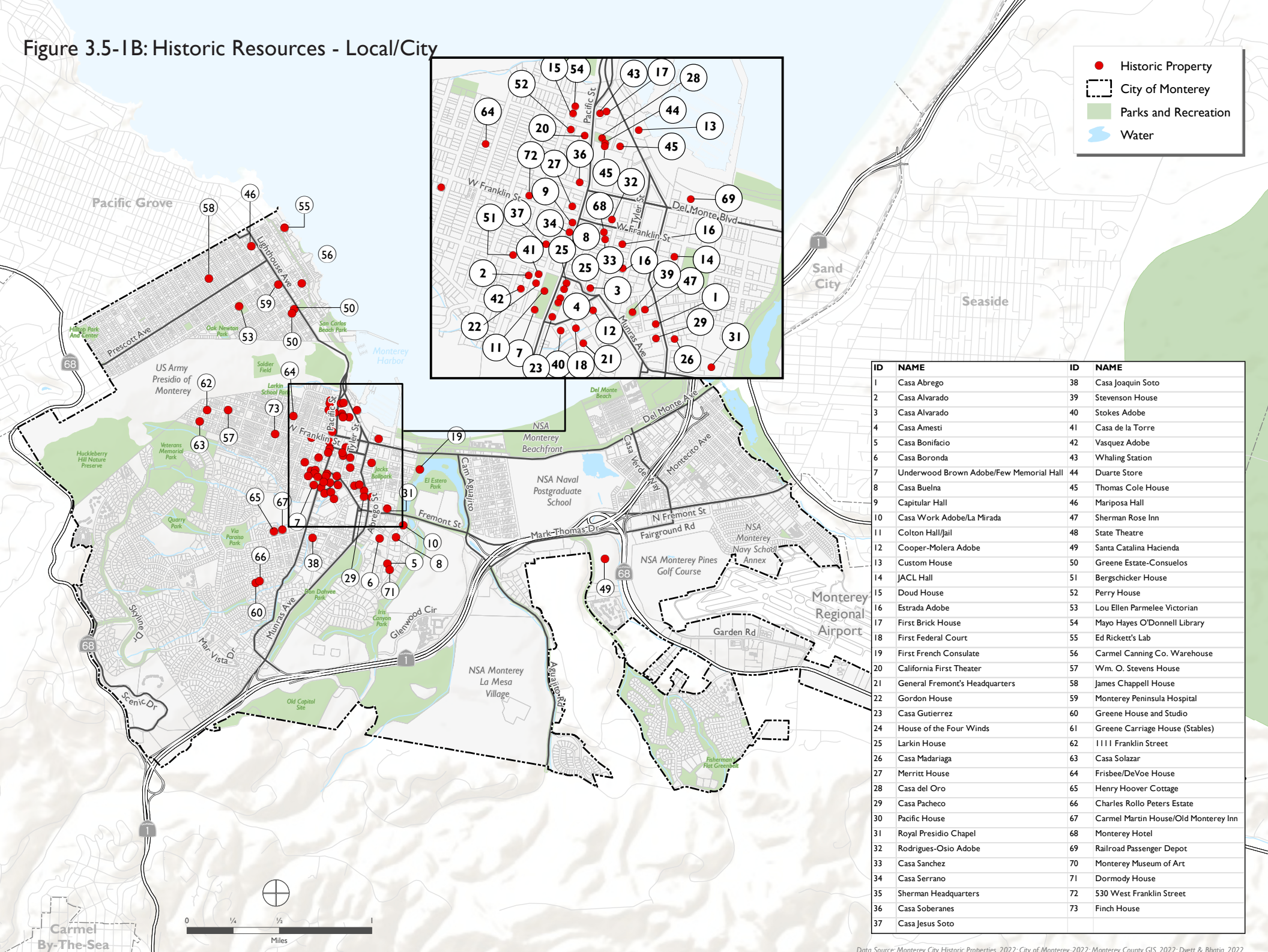
- Alta Mesa Historic Context Statement and Reconnaissance Survey (2020)
- New Monterey Historic Context Statement and Reconnaissance Survey (2013)
- National Historic Landmark District and Downtown Areas Context Statement and Reconnaissance Survey (2012)
- Oak Grove Reconnaissance Survey Report (2007)
- Upper Old Town Reconnaissance Survey Report (2007)
- Lower Old Town Reconnaissance Survey (2006)
- City Historic Resource Overlay Cannery Row Cultural Resources Survey (2001)
- Historic Master Plan (2000)

Archaeological Resources

CEQA defines unique archaeological resources as an artifact, object or site that can help answer important scientific questions, is an exemplary illustration of its type, or is associated with an important prehistoric or historic event or person (Public Resources Code [PRC], Section 21083.2[g]). The Planning Area falls within the contact-period lands of at least two aboriginal tribal groups. These groups are known ethnographically as Costanoan and Esselen, which are the names given to their language or language family. Ethnographic and ethnohistoric information regarding Costanoan and Esselen speakers comes from the records of early Spanish explorers, mission documents, the works of ethnographers and linguists, and from Native American descendants.

The cultural history of the Central California coast and inland region area has, until recently, been poorly documented. Since 1970, however, hundreds of surveys have been conducted and more than 60 archaeological sites have been excavated in Monterey and San Luis Obispo counties, with more than 200 radiocarbon dates reported. Most of this work was undertaken to comply with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Investigations of 19 sites along the northern shore of Monterey Peninsula confirmed the existence of two archaeological "populations" in the area of ethnographic Rumsen Costanoans. Over time, archeological investigations within the Planning Area have resulted in the recording of approximately 29 prehistoric archeological sites.

Figure 3.5-1B: Historic Resources - Local/City



ID	NAME	ID	NAME
1	Casa Abrego	38	Casa Joaquin Soto
2	Casa Alvarado	39	Stevenson House
3	Casa Alvarado	40	Stokes Adobe
4	Casa Amesti	41	Casa de la Torre
5	Casa Bonifacio	42	Vasquez Adobe
6	Casa Boronda	43	Whaling Station
7	Underwood Brown Adobe/Few Memorial Hall	44	Duarte Store
8	Casa Buelna	45	Thomas Cole House
9	Capitular Hall	46	Mariposa Hall
10	Casa Work Adobe/La Mirada	47	Sherman Rose Inn
11	Colton Hall/Jail	48	State Theatre
12	Cooper-Molera Adobe	49	Santa Catalina Hacienda
13	Custom House	50	Greene Estate-Consuelos
14	JACL Hall	51	Bergschicker House
15	Doud House	52	Perry House
16	Estrada Adobe	53	Lou Ellen Parmelee Victorian
17	First Brick House	54	Mayo Hayes O'Donnell Library
18	First Federal Court	55	Ed Rickett's Lab
19	First French Consulate	56	Carmel Canning Co. Warehouse
20	California First Theater	57	Wm. O. Stevens House
21	General Fremont's Headquarters	58	James Chappell House
22	Gordon House	59	Monterey Peninsula Hospital
23	Casa Gutierrez	60	Greene House and Studio
24	House of the Four Winds	61	Greene Carriage House (Stables)
25	Larkin House	62	1111 Franklin Street
26	Casa Madariaga	63	Casa Solazar
27	Merritt House	64	Frisbee/DeVoe House
28	Casa del Oro	65	Henry Hoover Cottage
29	Casa Pacheco	66	Charles Rollo Peters Estate
30	Pacific House	67	Carmel Martin House/Old Monterey Inn
31	Royal Presidio Chapel	68	Monterey Hotel
32	Rodrigues-Osio Adobe	69	Railroad Passenger Depot
33	Casa Sanchez	70	Monterey Museum of Art
34	Casa Serrano	71	Dormody House
35	Sherman Headquarters	72	530 West Franklin Street
36	Casa Soberanes	73	Finch House
37	Casa Jesus Soto		

Data Source: Monterey City Historic Properties, 2022; City of Monterey, 2022; Monterey County GIS, 2022; Dyett & Bhatia, 2022.

The analysis of potential cultural resources impacts in the Planning Area is based upon a comprehensive records search conducted at the NWIC, located at Sonoma State University on June 16, 2023. The records search included a review of all recorded historic and prehistoric cultural resources within the Planning Area. According to the 2023 NWIC records search, the Planning Area contains 81 recorded archaeological resources, including thirty-nine 39 recorded Native American archaeological resources, and 42 historic-period archaeological resources. In addition, there are three Informal Resources; C-874, C-1301, and C-1554. These sites include two historic refuse scatters, and site of the Armed Forces YMCA at the first presidio. Informal Resources are those resources not recorded on DPR 523A primary record forms and not submitted in CHRIS standard format to an Information Center (IC) by the Office of Historic Preservation (OHP). There have been 450 cultural resource studies that include portions of the City of Monterey General Plan Update Planning Area. According to research there is a high potential of identifying Native American archaeological resources and a high potential of identifying historic-period archaeological resources in the Planning Area.

Tribal Cultural Resources

A tribal cultural resource is a site, feature, place, cultural landscape, sacred place, or object with cultural value to a tribe that is included or determined to be eligible for inclusion in the California Register of Historic Resources (CRHR), included in a local register of historical resources, or otherwise determined to be significant by the lead agency of an environmental review process.

The 2023 NWIC records search revealed that based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of Monterey County have been found in areas marginal to Monterey Bay and inland near intermittent and perennial watercourses and near areas populated by oak, buckeye, manzanita, and pine, as well as near a variety of plant and animal resources. As described above, given the similarity of these environmental factors and the archaeological sensitivity of the area, there is a high potential for unrecorded tribal cultural resources to be within the Planning Area.

Native American Consultation

To determine sensitivity for Native American resources within the Planning Area, consultation with NAHC and local Native American groups was conducted. NAHC was contacted on October 6, 2022, with a request for the following information:

- CEQA Tribal Consultation List (AB 52)
- General Plan (SB 18) – per Government Code Section 65352.3
- Identification by NAHC of any Native American resources within the subject lands that are listed in the Sacred Lands File

A response from NAHC was received on November 1, 2022, and stated that a search of the Sacred Lands File identified sacred lands in the vicinity of the Planning Area was positive.

The response from NAHC also included the following list of individuals and tribal representatives who might have an interest in the Proposed Plan:

- Valentin Lopez, Amah Mutsun Tribal Band

- Irene Zwierlein, Amah Mutsun Tribal Band of Mission San Juan Bautista
- Patrick Orozco, Costanoan Ohlone Rumsen-Mutsen Tribe
- Tom Little Bear Nason, Esselen Tribe of Monterey County
- Ann Marie Sayers, Indian Canyon Mutsun Band of Costanoan
- Kanyon Sayers-Roods, Indian Canyon Mutsun Band of Costanoan
- Louise Miranda-Ramirez, Ohlone/Costanoan-Esselen
- Kenneth Woodrow, Wuksache Indian Tribe/Eshom Valley Band
- Isaac Bojorquez, Kakoon Ta Ruk Band of Ohlone-Costanoan Indians of Big Sur Rancheria
- Dee Dee Ybarra, Rumsen Am:a Tur:ataj Ohlone

These individuals and tribal representatives were sent formal notification under SB 18 on December 19, 2022 and under AB52 on July 12, 2023. No responses were received from any of the individuals and tribal representatives and no Native American tribes shared knowledge of tribal cultural resources.

REGULATORY SETTING

Federal Regulations

Although the Proposed Plan is not anticipated to require compliance with Section 106 of the National Historic Preservation Act, the NRHP and federal guidelines related to the treatment of cultural resources are relevant for the purposes of determining whether cultural resources, as defined under CEQA, are present and guiding the treatment of such resources. The sections below summarize the relevant federal regulations and guidelines.

National Historic Preservation Act and National Register of Historic Places

The National Historic Preservation Act (16 United States Code [U.S.C.] 470f) requires federal agencies to consider effects on historic properties when projects involve federal funding or permitting or occur on federal land. The National Historic Preservation Act establishes the NRHP, which provides a framework for resource evaluation and informs the process of determining impacts on historic properties, which can also be considered historical resources under CEQA.

The NRHP is the nation's official comprehensive inventory of historic properties. Administered by the National Park Service, the NRHP includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. Typically, a historic property that is more than 50 years of age is eligible for listing in the NRHP if it meets any one of the four eligibility criteria and retains sufficient historical integrity. A resource less than 50 years old may be eligible if it can be demonstrated that it is of "exceptional importance" or a contributor to a historic district. NRHP criteria are defined in *National Register Bulletin Number 15: How to Apply the National Register Criteria for Evaluation*.

National Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) was passed in 1990 to provide for the protection of Native American graves. The act conveys to Native American's of demonstrated lineal descent, the human remains, including the funerary or religious items, that are held by federal agencies and federally supported museums, or that have been recovered from federal lands. NAGPRA makes the sale or purchase of Native American remains illegal, whether or not they were derived from federal or Native American lands.

State Regulations

California Environmental Quality Act

CEQA, as codified in PRC Section 21000 et seq. and implemented through the CEQA Guidelines (14 California Code of Regulations [CCR] Section 15000 et seq.), is the principal statute governing the environmental review of projects in the state. In order to be considered a historical resource, it generally must be at least 50 years old. Section 21084.1 of CEQA and Section 15064.5 of the CEQA Guidelines define a historical resource for purposes of CEQA. A historical resource includes:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the CRHR (PRC Section 5024.1, Title 14 CCR, Section 4850 et seq.);
- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant;
- Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the CRHR (PRC Section 5024.1, Title 14 CCR, Section 4852).

The fact that a resource is not listed in, or determined to be eligible for listing in, the CRHR; not included in a local register of historical resources, pursuant to PRC Section 5020.1(k); or identified in a historical resources survey meeting the criteria of PRC Section 5024.1(g) does not preclude a lead agency from determining that the resource may be a historical resource, as defined in PRC Sections 5020.1(j) or 5024.1.

California Register of Historical Resources

The CRHR is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and indicating which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1(a)). Certain resources are determined by CEQA to be automatically included in the CRHR, including California properties formally eligible for or listed in the NRHP. To be eligible for the CRHR as a historical resource, a resource must be significant at the local, state, and/or federal level under one or more of the following evaluative criteria, as defined in PRC Section 5024.1(c):

1. The resource is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

2. The resource is associated with the lives of persons important in our past.
3. The resource embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
4. The resource has yielded, or may be likely to yield, information important in prehistory or history.

As with the NRHP, a significant historical resource must possess integrity in addition to meeting the significance criteria to be considered eligible for listing in the CRHR. Consideration of integrity for evaluation of CRHR eligibility follows the definitions and criteria from the National Park Service's *National Register Bulletin 15*.

California Historic Resources

OHP offers four different registration programs, including the California Historical Landmarks, California Points of Historical Interest, CRHR, and the NRHP. Each registration program is unique in the benefits offered and procedures required. If a resource meets the criteria for registration, it may be nominated by any individual, group, or local government to any program at any time. Resources do not need to be locally designated before being nominated to a state program nor do they need to be registered at the state level before being nominated to the National Register. The California Register includes buildings and architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Resources on the California Register have met criteria for designation or have been included due to their presence on the NRHP, the State Historical Landmark program, or the California Points of Historical Interest program.

State Historical Landmark Program

California Historical Landmarks are buildings, structures, sites, or places that have been determined to have statewide historical significance by meeting at least one of several criteria. The resource must be the first, last, only, or most significant of its type in the state or within a large geographic region; associated with an individual or group having a profound influence on California history; or be a prototype of, or outstanding example of, a period, style, architectural movement, or construction, or be one of the more notable works or best surviving work in a region of a pioneer, designer, or master builder.

California Points of Historical Interest

California Points of Historical Interest are sites, buildings, features, or events of local (city or county) significance, having anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Criteria are the same as those for Historical Landmarks but directed to local areas. Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the California Register. No historical resource may be designated as both a Landmark and a Point; if a Point is subsequently granted status as a Landmark, the Point designation will be retired.

California Government Code Section 65040.2(g)

California Government Code Section 65040.2(g) provides guidelines for consulting with Native American tribes for the following: (1) the preservation of, or the mitigation of impacts on places, features, and objects described in Sections 5097.9 and 5097.993 of the PRC; (2) procedures for identifying through NAHC the appropriate California Native American tribes; (3) procedures for continuing to protect the confidentiality of information concerning the specific identity, location, character, and use of those places, features, and objects; and (4) procedures to facilitate voluntary landowner participation to preserve and protect the specific identity, location, character, and use of those places, features, and objects.

Senate Bill 18

Signed into law in September 2004, and effective March 1, 2005, SB 18 permits California Native American tribes recognized by the NAHC to hold conservation easements on terms mutually satisfactory to the tribe and the landowner. The term "California Native American tribe" is defined as "a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC." The bill also requires that, prior to the adoption or amendment of a city or county's general plan, the city or county consult with California Native American tribes for the purpose of preserving specified places, features, and objects located within the city or county's jurisdiction. SB 18 also applies to the adoption or amendment of specific plans. This bill requires the planning agency to refer to the California Native American tribes specified by the NAHC and to provide them with opportunities for involvement.

Assembly Bill 52

Tribal cultural resources were originally identified as a distinct CEQA environmental category with the adoption of AB 52 in September 2014. For all projects subject to CEQA that received a notice of preparation, notice of negative declaration, or mitigated negative declaration on or after July 1, 2015, AB 52 requires the lead agency on a proposed project to consult with the geographically affiliated California Native American tribes. The legislation creates a broad new category of environmental resources, "tribal cultural resources," which must be considered under CEQA. AB 52 requires a lead agency to not only consider the resource's scientific and historical value but also whether it is culturally important to a California Native American tribe. AB 52 defines tribal cultural resources as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are included or determined to be eligible for inclusion in the CRHR; included in a local register of historical resources, as defined in PRC Section 5020.1(k); or determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to the criteria of PRC Section 5024.1(c) (CEQA Section 21074).

AB 52 also sets up an expanded consultation process. For projects initiated after July 1, 2015, lead agencies are required to provide notice of the proposed projects to any tribe that is traditionally and culturally affiliated with the geographic area that requested to be informed by the lead agency, following PRC Section 21018.3.1(b). If, within 30 days, a tribe requests consultation, the consultation process must begin before the lead agency can release a draft environmental document. Consultation with the tribe may include discussion of the type of review necessary, the significance of tribal cultural resources, the significance of the project's impacts on the tribal cultural resources, and alternatives and mitigation measures recommended by the tribe. The consultation process will be deemed concluded when either (1) the parties agree to mitigation

measures or (2) any party concludes, after a good-faith effort, that an agreement cannot be reached. Any mitigation measures agreed to by the tribe and lead agency must be recommended for inclusion in the environmental document. If a tribe does not request consultation, or to otherwise assist in identifying mitigation measures during the consultation process, a lead agency may still consider mitigation measures if the agency determines that a project will cause a substantial adverse change to a tribal cultural resource.

Assembly Bill 168

AB 168, adopted in September 2020, provides additional protection for tribal cultural resources as defined in AB 52. This bill applies in situations where a developer seeks to streamline approval under SB 35 and, in doing so, bypass CEQA requirements. AB 168 rectifies a loophole in SB 35 that allowed developers to apply for fast-tracked approval without notifying Native American tribes affiliated with the project area. Instead, under AB 168 projects would be ineligible for SB 35 and subject to CEQA if (1) the site of the proposed development is a tribal cultural resource that is on a national, state, tribal, or local historic register list, (2) the local government and the California Native American tribe do not agree that no potential tribal cultural resource would be affected by the proposed development, or (3) the local government and California Native American tribe find that a potential tribal cultural resource could be affected by the proposed development and the parties do not document an enforceable agreement regarding the methods, measures, and conditions for treatment of those tribal cultural resources, as provided.

California Public Resources Code

Section 5097.98

The treatment of Native American human remains is regulated by PRC Section 5097.98, as amended by Assembly Bill 2641, which addresses the disposition of Native American burials, protects remains, and appoints the NAHC to resolve disputes. In addition, California Health and Safety Code Section 7050.5 includes specific provisions for the protection of human remains in the event of discovery, and Section 7052 makes the willful mutilation, disinterment, or removal of human remains a felony. The Health and Safety Code is applicable to any project where ground disturbance would occur.

Sections 5097–5097.6

Sections 5097–5097.6 of the California PRC outline the requirements for cultural resource analysis prior to the commencement of any construction project on state lands. The state agency proposing the project may conduct the cultural resource analysis or they may contract with the State Department of Parks and Recreation. In addition, this section stipulates that the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands is a misdemeanor. It prohibits the knowing destruction of objects of antiquity without a permit (expressed permission) on public lands and provides for criminal sanctions. This section was amended in 1987 to require consultation with the California NAHC whenever Native American graves are found. Violations for the taking or possessing remains or artifacts are felonies.

Sections 5097.9-991

The PRC Section 5097.9-991, regarding Native American heritage, outlines protections for Native American religion from public agencies and private parties using or occupying public property.

Also protected by this code are Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines located on public property.

Local Regulations

City of Monterey General Plan 2005 (General Plan)

The Monterey General Plan envisions the Planning Area as a small-scale residential community beside the Bay, framed by a forested hill backdrop and drawing its charm from a rich historical background, certain commercial enterprises, and natural scenic beauty. The General Plan Historic Preservation Element contains a range of policies and programs for the protection of historic resources within the Planning Area. The City's Historic Preservation Program provides the overall structure for policy and protection programs. Policies a.1 (which includes eight implementing programs) through a.3 promote maintenance of a preservation program, encourage collection and preservation of historic artifacts, and require maintenance of City-owned historic building consistent with Federal standards. Policy b.1 and its 12 implementing programs call for the coordination of historic preservation activities among all involved agencies. Implementation of new development consistent with these policies would reduce impacts on historic resources to a less than significant level. Restoration and protection of historic buildings is also promoted through General Plan Urban Design Element policies e.1 through e.3 which seek to protect and enhance the setting of historic buildings, address consistency of design of new development with existing historic buildings and maintain existing and develop new paths of history.

Urban Design Element

Goal e. Historic buildings, gardens, districts, and their settings should continue to be protected and restored, keeping the flavor of the past.

> **Policy e.1.** Protect and enhance the setting of historic buildings.
>
> **Policy e.2.** Respect and enhance the setting of historic buildings.
>
> **Policy e.3.** Maintain the downtown of history and develop additional paths of history in areas like Cannery Row, Presidio of Monterey and other historic areas.

Historic Preservation Element

Goal a. Preserve historic and cultural resources in Monterey, including buildings, sites, landscapes, artifacts, and memories.

> **Policy a.1.** Maintain a balanced preservation program with plans, surveys, ordinances to preserve historic resources, and incentives, including permit streamlining, to balance the added costs of maintaining historic resources.
>
> > **Program a.1.1.** Maintain the Historic Master Plan with review and updates at five-year intervals.
> >
> > **Program a.1.2.** Encourage historic zoning and Historic Districts in areas that are eligible. Consider City-initiated historic zoning and Districts for resources with state, national, and international significance.

Program a.1.3. Complete the City-wide historic survey program and maintain up-to-date surveys of potentially historic resources.

Program a.1.4. Develop a Master Plan for the lower Presidio of Monterey Historic Park.

Program a.1.5. Develop a Master Plan for the Royal Presidio Site in conjunction with the Diocese of Monterey

Program a.1.6. Encourage the identification and preservation of historic landscapes, including incentives for preservation.

Program a.1.7. Maintain and update the City's historic incentive programs to support historic property owners, including grant programs, land use incentives, flexible zoning and parking standards, property tax relief, Historic Building Code, and expedited processing for historic resources.

Policy a.2. Encourage the collection and preservation of artifacts, print materials, oral histories, and ephemera.

Program a.2.1. Maintain and expand the historic collection at the Library California Room.

Program a.2.2. Support cultural museums, learning and interpretive centers, and libraries that preserve, store, protect, and make artifacts available for public display and study.

Policy a.3. Maintain City-owned historic buildings in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Resources.

Policy a.4. Utilize the CEQA process for projects located in archaeologically sensitive areas to identify and mitigate potential impacts on archaeological resources.

Monterey City Code

The Monterey City Code includes the City's Historic Zoning Ordinance (Chapter 38, Article 15 of the Monterey City Code). Article 15's purpose is to implement Urban Design Overview, the Historic Preservation Element and Economic Element of the General Plan; the historic preservation provisions of adopted neighborhood plans; to promote the preservation, rehabilitation, restoration, reconstruction, and protection of historic resources; to enhance and preserve the setting of historic resources so that surrounding land uses, including design and color, do not detract from the historic resources; to encourage and promote public knowledge, understanding, and appreciation of the city's history; to promote appreciation and use of historic resources; to encourage preservation of resources, which may potentially be considered eligible for historic zoning; to promote public awareness of the benefits of preservation; and to encourage public participation in identifying and preserving historical resources, thereby increasing community pride in the city's cultural heritage.

As established by the ordinance, the City maintains a list of surveyed properties with potential to meet the criteria for historic zoning as identified in an Intensive Survey. Article 15 outlines land use regulations for these properties with and without historic zoning. In addition, Section 38-74b of Article 15 outlines land use regulations for properties without historic zoning. These include regulations for alteration and demolition, such as an alteration review by the Community Development Director and an intensive survey for demolition. As listed below, there are three types of historic zoning per the Monterey City Code:

Landmark Zoning (H-1)

This zoning applies to properties which meet the National 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 previously "H" zoned resources as of the date of the ordinance adoption which may not meet National Register integrity standards.

City Historic Resource Zoning (H-2)

This zoning applies to properties that meet National Register criteria defined in National Register Bulletin 15 and to properties that meet the criteria for listing on the California Register 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. This designation requires the owner's consent. The criteria are presumed to be met unless there is substantial evidence to the contrary.

Historic District Overlay Zoning (H-D)

This zoning is intended to identify and protect geographical areas with a concentration of historic resources, where preservation of the individual historic resources and their historic setting is important to understanding Monterey's history. H-D Historic District zoning may be applied to a geographic area which meets National Register criteria in National Register Bulletin 15 or California Register criteria for districts.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if the Proposed Plan would:

Criterion 1: **Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5;**

Criterion 2: **Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5,**

Criterion 3: **Disturb any human remains, including those interred outside of dedicated cemeteries,**

Criterion 4: **Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature,**

place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

IMPACTS

Impact 3.5-1 Implementation of the Proposed Plan would not cause a substantial adverse change in the significance of a historical resource, as defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historic resource would be materially impaired (Guidelines Section 15064.5). (*Less than Significant with Mitigation Incorporated*)

A significant impact would occur if implementation of the Proposed Plan would result in substantial adverse changes to historical resources through demolition, alterations, changes in ownership, and accidents caused by construction activities. Implementation of the Proposed Plan would result in up to 5,800 new homes and 1,995 new jobs in Monterey by 2031. Buildout would occur primarily in previously developed areas of the city, including areas with recorded historic resources. As shown in Figures 3.5-1A and 3.5-1B and described above, there are numerous recorded historic buildings and structures located throughout the Planning Area. In addition, as yet unevaluated buildings and structures older than 50 years in the Planning Area are potentially eligible for listing as historic resources. Chapter 38, Article 15 of The Monterey City Code establishes regulations and procedures regarding the treatment of historic and potentially historic resources. These provisions establish three types of historic zoning: H-1 Landmark Overlay Zoning; H-2 City Historic Resource Overlay Zoning; and H-D Historic District Overlay Zoning.

Within the H-1 and H-2 zoning overlays, a Historic Permit is required for any alteration or demolition. A Historic Permit for alteration may be issued only upon a finding that the proposed work is consistent with an adopted Historic Preservation Report describing a program for preservation of the resource consistent with the Secretary of the Interior's Standards for Treatment of Historic Properties. A permit for demolition may only be issued if a resource is a hazard to public health or safety, and repairs or stabilization are not feasible or if denial of the application will deprive the property owner of the economically viable use of the property, after application of financial, land use and other incentives available to the property. Relocating a historic resource is an acceptable alternative to demolition if findings are made that the move is required to prevent destruction of the resource at its former location, that the new location is compatible with the original character and use of the historic resource, and that the resource retains its historic features

and compatibility in orientation, setting, and general environment, and that the receiving lot and the former lot are appropriately rezoned.

Chapter 38, Article 15 also establishes requirements and procedures for properties that do not have historic zoning but that have been identified in a Reconnaissance Survey or Intensive Survey, or which are determined to potentially meet the criteria for Historic Zoning by the Community Development Director. Unless found to be exempt or unless it is determined that the property does not meet the Criteria for Historic Zoning, these properties are also required to comply with the Secretary of the Interior's Standards for Treatment of Historic Properties.

Table 3.5-1 shows 5 properties included on the inventory of sites available for housing in the proposed Housing Element that have historic zoning and three properties on the inventory that are eligible for listing on the National and California Registers, but which do not have historic zoning. Compliance with existing regulations would ensure that any alteration proposed on these properties would conform with the Secretary of the Interior's Standards for Treatment of Historic Properties and that demolition would be avoided to the extent practicable. Thus, the significance of these historic resources would not be materially impaired as defined by CEQA Guidelines Section 15064.5., and associated impacts to these historic resources would be less than significant. Additionally, Table 3.5-1 includes one property at 479 Alvarado Street on the housing sites inventory that appears eligible for listing on the National and California Registers, but which does not have historic zoning. Under existing regulations, this property would also be required to comply with the Secretary of the Interior's Standards for Treatment of Historic Properties unless it is determined that the property does not meet the Criteria for Historic Zoning, and as such associated impacts would be less than significant.

As noted above, there are numerous properties more than 50 years old in the Planning Area that have not yet been evaluated for historic significance and that may be eligible for listing on local, State, or national registers. The General Plan includes policies that can reduce impacts on potential resources, including Historic Preservation Element Policy a.1, which requires the City to maintain a preservation program to preserve and promote maintenance of historic resources; Program a.1.3 that calls for completion of a citywide historic survey; and Policy a.3 that requires the maintenance of City-owned historic buildings in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Resources. However, to further address potential impacts to significant historic resources, **Mitigation Measure CUL-1** is recommended, requiring that project sponsors proposing development on a property with structures more than 50 years old evaluate the properties for historic significance. In the event that historic resources are identified, **Mitigation Measure CUL-2** is recommended, requiring evaluation for potential direct and/or indirect effects on the identified historic resource(s) per CEQA Guidelines Section 15364, and as appropriate, avoidance or minimization of impacts to historic structures. Therefore, overall, compliance of existing regulations and implementation of proposed mitigation measures CUL-1 and CUL-2 would reduce the impact of implementation of the Proposed Plan on historical resources to a less than significant level.

Table 3.5-1: Proposed Plan Sites that Contain Historic Resources

Address	*Historic Name*	*Historic Status*	*Current Zoning*
546 Dutra St	Vasquez Adobe	Locally Listed; Listed in the California Register (CR) (1D)	PC-D-H1
543 Lighthouse Ave		Determined Eligible for Listing in National (NR) or California (CR) Registers (2S2)	PC-LH-H2
300 Cannery Row	Aeneus Sardine Packing Building and Storehouse	Determined Eligible for Listing in National (NR) or California (CR) Registers (2S2)	CR
200 Glenwood Circle	Park Lane Senior Living Apartments	Determined Eligible for Listing in National (NR) or California (CR) Registers (2S2)	PC
470 Tyler Street	T A Works Opera House & Theater Building, Multiple Com	Appears Eligible for National (NR) or California (CR) Registers (3S)	PC-D
479 Alvarado St/482 Tyler Street	Round Table Pizza	Appears Eligible for National (NR) or California (CR) Registers (3S)	PC-D
801 Lighthouse Ave # 109	Mariposa Hall	Locally Listed	PC-LH-H2
543 Lighthouse Ave	Monterey Peninsula Hospital	Locally Listed	PC-LH-H2
537 Houston St	Sherman Rose Inn	Locally Listed	PC-D-H2

Source: NWIC, 2023; City of Monterey National Historic Landmark District and Downtown Area Context Statement and Reconnaissance Survey, 2012.

Mitigation Measures

MM-CUL-1: Evaluate Age-Eligible Properties That Have Not Previously Been Evaluated Prior to Development Projects to Identify Historic Resources. As a condition of project approval for a development project proposed on a parcel within the Planning Area that includes a building, structure, or landscape more than 50 years old (typical age threshold applied by the California Office of Historic Preservation) and that has not previously been evaluated for potential historic significance, the City shall require the project applicant shall retain a professional who meets the Secretary of the of the Interior's Professional Qualifications Standards for architectural history or history (as appropriate), to conduct an evaluation of historic significance and eligibility for listing on local, State, or national registers.

The evaluation shall include an Intensive Survey, which is comprised of a field survey, archival research, and preparation of a historic resource evaluation report. The report shall include documentation of methodology and the findings of the historic evaluation, including a determination of historic significance and eligibility for listing on local, State, or national registers. On the basis of this evaluation, if it is determined

that the subject property contains an historic resource, Mitigation Measure CUL-2 shall be implemented.

MM-CUL-2: Avoidance or Minimization of Effects on Identified Historic Resources. The project applicant shall consult with City staff to determine whether a project can be feasibly redesigned or revised to avoid significant adverse impacts on listed and identified eligible historic resource(s), including historic districts. If a local landmark or local historic district is part of a proposed development, the project's Historic Permit application must be reviewed by the Historic Preservation Commission. If avoidance of historic resource(s) is not feasible, where feasibility is defined as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors," the project sponsor shall seek to reduce the effect on historic resource(s) to a less-than-significant level pursuant to CEQA Guidelines Section 15364. Projects that conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties are considered to have a less-than-significant effect on historic architectural resources.

Significance after Mitigation: Less than Significant.

Impact 3.5-2 Implementation of the Proposed Plan would not cause an adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. (*Less than Significant with Mitigation Incorporated*)

A significant impact would occur if implementation of the Proposed Plan would cause an adverse change in the significance of an archeological resource pursuant to CEQA Guidelines Section 15064.5. As described in the Environmental Setting, there are known prehistoric and historic archaeological resources in and around the Planning Area. Early Monterey County maps indicate numerous buildings and structures, including bridges, piers or wharfs, a racetrack, railroads, and cemeteries within the project area (1895 Monterey Sanborn Maps and 1913 Monterey USGS 15-minute topographic quadrangle). Given this, there is a high potential for unrecorded historic-period archaeological resources to be within the Planning Area. Future development projects or public works activities allowed under the Proposed Plan may involve grading, excavation, overland vehicle travel, or other ground-disturbing activities, or could facilitate public access to archaeological sites, which could disturb or damage unknown archaeological resources. The impact of such activities would be considered significant if they were to cause a substantial adverse change to the archaeological resources as defined by CEQA Guidelines Section 15064.5.

To address the potential for impacts to archaeological resources, including as yet undiscovered tribal cultural resources, **Mitigation Measure CUL-3** is recommended, which would require an assessment of the potential presence of archaeological and tribal cultural resources, including a site survey and a records search of the California Historical Resources Information System at the Northwest Information Center, for development and redevelopment proposals in archaeologically or tribal culturally sensitive areas within the City of Monterey. Implementation of **Mitigation Measure CUL-4** is also recommended for developments in areas with a high potential for uncovering archaeological deposits or tribal cultural resources. This measure requires construction personnel to receive cultural awareness training on existing regulations and unanticipated discovery protocol. Additionally, in the case of accidental discovered of archaeological or tribal cultural resources, **Mitigation Measure CUL-5** is also recommended, requiring the immediate suspension of soils-disturbing activities in the vicinity of the discovery and an assessment of the significance of the discovery by a qualified archeological consultant, together with measures to preserve any resource that retains sufficient integrity and is of potential scientific/historical/cultural significance. Overall, compliance with existing regulations and implementation of mitigation measures CUL-3, CUL-4, and CUL-5 would reduce impacts to the maximum extent practicable. Impacts would be less than significant with mitigation.

Mitigation Measures

MM-CUL-3 **Archaeological and Tribal Cultural Assessments.** For projects in archaeologically or tribal culturally sensitive areas of the Planning Area, the City shall require project proponents to submit an assessment of the potential presence of archaeological and tribal cultural resources prepared by a qualified archeological consultant prior to project approval. The assessment shall include a site survey, a records search of the California Historical Resources Information System at the Northwest Information Center, and if warranted by the results of the assessment, recommendations for avoidance or mitigation in accordance with section 5097.98 of the California Public Resources Code, and section 7050.5 of the California Health and Safety Code, as applicable. Recommendations may include establishing conservation easements; preservation in situ of the resource; capping or covering archaeological sites; planning open space to incorporate archaeological sites; or excavation. If, on the basis of the assessment, it is determined that the discovery is a tribal cultural resource, affiliated Native American tribal representatives shall be consulted and invited to engage in the formulation of mitigation strategies.

MM-CUL-4: **Conduct Cultural Resources Awareness Training.** Prior to the start of any ground disturbance or construction activities, developers of projects within 50 feet of a creek or within 50 feet of recorded archaeological resources or tribal cultural resources in the Planning Area shall retain a qualified professional archaeologist to conduct cultural resource awareness training for construction personnel. This training shall include an overview of what cultural resources are and why they are important, archaeological terms (such as site, feature, deposit), project site history, types of cultural resources likely to be uncovered during excavation, laws that protect cultural resources, and the unanticipated discovery protocol per the PRC Section 21083.

MM-CUL-5: **Accidental Discovery.** In the event of accidental discovery of an archeological or tribal cultural resource during soils-disturbing activity of any project pursuant to the Proposed Plan, the project sponsor shall immediately suspend any soils-disturbing activities in the vicinity of the discovery and retain the services of a qualified archeological consultant to whether the discovery is an archeological resource retains sufficient integrity and is of potential scientific/historical/cultural significance. The archeological consultant shall make a recommendation as to what action, if any, is warranted. If it is determined that the discovery is a tribal cultural resource, affiliated Native American tribal representatives shall be consulted and invited to engage in the formulation of mitigation strategies. Mitigation strategies may include preservation in situ of the resource, a monitoring program, a testing program, or an interpretation program.

Significance After Mitigation: Less than significant

Impact 3.5-3 Implementation of the Proposed Plan would not have the potential to disturb human remains, including those interred outside of formal cemeteries. (*Less than Significant with Mitigation Incorporated*)

Implementation of the Proposed Plan would result in up to 5,800 new homes and 1,995 new jobs in Monterey by 2031. Human remains, particularly those interred outside of formal cemeteries, could be disturbed during grading, excavation, or other ground-disturbing activities associated with future development or redevelopment projects allowed under the Proposed Plan. There are several cemeteries located within the Planning Area, including Cemetery El Encinal at 798 Fremont Street, the San Carlos Cemetery at 792 Fremont Street, and the Presidio of Monterey Main Post Cemetery. These facilities are designated as Open Space on the Zoning Map where certain limited types of development are permitted with a use permit. Given high potential for unrecorded historic-period archaeological resources and tribal cultural resources in the Planning Area, it is possible that subsurface construction activities associated with the Proposed Plan, such as trenching and grading, could potentially damage or destroy previously undiscovered human remains. In the event of the accidental discovery or recognition of any human remains, the protocols established in CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Section 5097.94 and Section 5097.98 would be required. Compliance with these existing regulations would reduce impacts to a less than significant level. Additionally, implementation of Mitigation Measure CUL-3 through CUL-5 would further reduce any potential impact on archaeological resources, including human remains, through cultural awareness training for construction personnel on unanticipated discovery protocol. Therefore, impacts would be less than significant.

Mitigation Measures

MM-CUL-3 **Archaeological and Tribal Cultural Assessments.**

MM-CUL-4: **Conduct Cultural Resources Awareness Training.**

MM-CUL-5: **Accidental Discovery.**

Significance After Mitigation: Less than significant

Impact 3.5-4 **Implementation of the Proposed Plan would not cause an adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:**

(a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or

(b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. (*Less than Significant with Mitigation Incorporated*)

The results of the NWIC records search indicate that there is a high potential for unrecorded Native American resources to be within the City limits, especially in the vicinity of Monterey Bay in the area between Point Alones and Laguna Del Rey, near intermittent and perennial watercourse. Therefore, future development or redevelopment projects allowed under the Proposed Plan could result in indirect impacts through grading, overland construction vehicle travel, or other ground-disturbing activities, or through facilitation of public access to culturally significant sites. The impact of such activities would be considered significant if they were to cause a substantial adverse change to the resources as defined by PRC Section 21074. As previously discussed, the response from the NAHC stated that a search of the Sacred Lands File to identify sacred lands in the Planning Area was positive. Further, according to the NWIC records search, the City of Monterey contains 39 recorded Native American archaeological resources. While the exact location of these resources is not public information, consultation with the tribes per SB 18 and AB 52 provides the opportunity for Native American tribes to identify if known resources could be compromised by implementation of the Proposed Plan. Such consultation is also intended to arrive at consensus regarding mitigation measures or ways to avoid a significant effect on tribal cultural resources. As detailed in the Environmental Setting, local tribal representatives were sent formal notification under SB 18 on December 19, 2022 and under AB52 on July 12, 2023. No responses or formal requests for tribal consultation have been received as documented in supporting materials and correspondence located in Appendix D of the DEIR.

To address the potential for impacts to tribal cultural resources, Mitigation Measure CUL-3 is recommended, which would require an assessment of the potential presence of archaeological and tribal cultural resources, including a site survey and a records search of the California Historical Resources Information System at the Northwest Information Center, for development and redevelopment proposals in archaeologically or tribal culturally sensitive areas within the City of Monterey. Implementation of Mitigation Measure CUL-4 is also recommended for developments in areas with a high potential for uncovering archaeological deposits or tribal cultural resources. This measure requires construction personnel to receive cultural awareness training on existing regulations and unanticipated discovery protocol. Additionally, in the case of accidental discovered of archaeological or tribal cultural resources, Mitigation Measure CUL-5 is also recommended, requiring the immediate suspension of soils-disturbing activities in the vicinity of the discovery and an assessment of the significance of the discovery by a qualified archeological consultant, together with measures to preserve any resource that retains sufficient integrity and is of potential scientific/historical/cultural significance. Overall, compliance with existing regulations and implementation of Mitigation Measures CUL-3, CUL-4, and CUL-5 would reduce impacts to the maximum extent practicable. Impacts would be less than significant with mitigation.

Mitigation Measures

MM-CUL-3 Archaeological and Tribal Cultural Assessments.

MM-CUL-4: Conduct Cultural Resources Awareness Training.

MM-CUL-5: Accidental Discovery.

Significance After Mitigation: Less than significant

3.6 Energy, Greenhouse Gas Emissions, and Climate Change

This section describes the environmental and regulatory setting for greenhouse gas (GHG) emissions. It also describes impacts related to GHG emissions that would result from implementation of the Monterey 2031 General Plan Update (Proposed Plan) and mitigation for significant impacts where feasible and appropriate.

There were seven public comments in response to the Notice of Preparation (NOP) (Appendix B) regarding issues related to energy, climate change, and GHG emissions. Caltrans requested that the EIR address climate change impacts on the capacity of State Highway System and local roadways to serve as evacuation routes and emergency access in the face of anticipated regional increase in wildfires, precipitation, and storm surge (See also EIR Section 3.13: Transportation; Impacts related to wildfire are evaluated in EIR Section 3.15: Wildfire.). One member of the public stated that the EIR should include updated information from the Federal Emergency Management Agency (FEMA). Two members of the public requested that the EIR look at impacts on water supply, also discussed in EIR Section 3.9: Hydrology and Water Quality. Members of LandWatch provided comments regarding GHG emissions due to increased vehicle miles traveled (VMT) and water supply concerns. These comments are addressed in the Impacts section and incorporated into the following analysis.

Environmental Setting

THE GREENHOUSE EFFECT AND GREENHOUSE GASES

The process known as the "greenhouse effect" keeps the atmosphere near Earth's surface warm enough for the successful habitation of humans and other life forms. The greenhouse effect is created by sunlight that passes through the atmosphere. Some of the sunlight striking Earth is absorbed and converted to heat, which warms the surface. The surface emits a portion of this heat as infrared radiation, some of which is re-emitted toward the surface by GHGs. Human activities that generate GHGs increase the amount of infrared radiation absorbed by the atmosphere, thus enhancing the greenhouse effect and amplifying the warming of Earth.

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution, resulting in a rise in global surface temperatures – a process commonly referred to as "global warming." Higher global surface temperatures, in turn, have caused widespread and rapid changes in the atmosphere, ocean, cryosphere, and biosphere—collectively referred to as "climate change"—with evidence of observed

changes such as heat waves, heavy precipitation, droughts, tropical cyclones, rising mean sea level, retreating glaciers, and other changes in the ecosystem.[1]

The Intergovernmental Panel on Climate Change (IPCC) was established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC estimates that human-induced warming reached approximately 1.1 degree Celsius (°C) above 1850-1900 levels in 2010-2019. Near-term global warming is expected to increase by about 1.5°C by 2040. Under an intermediate GHG emissions scenario (representing a plausible socioeconomic future scenario where GHG emissions remain around current levels until the middle of the 21st century), global warming is expected to rise to 3°C (i.e., approximately 37.4°F) by 2100.[2] Large increases in global temperatures could have substantial adverse effects on the natural and human environments worldwide and in California.

Greenhouse Gases

The principle anthropogenic (human-made) GHGs contributing to global warming are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds, including sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), and perfluorocarbons. Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic sources. The primary GHGs of concern associated with the Proposed Plan are CO_2, CH_4, and N_2O, described below.

- **Carbon dioxide** enters the atmosphere through fossil fuels (oil, natural gas, and coal) combustion, solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., manufacture of cement). CO_2 is also removed from the atmosphere (or sequestered) when it is absorbed by plants as part of the biological carbon cycle.

- **Methane** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal solid waste landfills.

- **Nitrous oxide** is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. Current best practice uses the global warming potential (GWP) of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalent (CO_2e). This method compares each gas to that of the same mass of CO_2, which by definition has a global warming potential of 1. In comparison, CH_4 has a GWP of 27-30, and N_2O

1 Intergovernmental Panel on Climate Change, "Summary for Policymakers," Climate Change 2023: Synthesis Report, Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)] (Geneva, Switzerland, 2023): 1-34, https://doi.org/10.59327/IPCC/AR6-9789291691647.001.

2 Ibid.

has a GWP of 273.[3] HFCs, PFCs, and SF_6 are sometimes called high-GWP gases because they trap substantially more heat than CO_2, with GWPs in the thousands or tens of thousands.[4]

The California Air Resources Board (CARB) recognizes the importance of short-lived climate pollutants (SLCP) (described in the Regulatory Setting section) and reducing these emissions to achieve the State's overall climate change goals. SLCP have atmospheric lifetimes on the order of a few days to a few decades, and their relative climate forcing impacts, when measured in terms of how they heat the atmosphere, can be tens, hundreds, or even thousands of times greater than that of CO_2.[5] Given their short-term lifespan and warming impact, short-lived climate pollutants are measured in terms of CO_2e using a 20-year time period. The use of GWPs with a time horizon of 20 years captures the importance of the short-lived climate pollutants and gives a better perspective as to the speed at which emission controls will affect the atmosphere relative to CO_2 emission controls. The Short-Lived Climate Pollutant Reduction Strategy (SLCP Reduction Strategy), as discussed in the Regulatory Setting, addresses CH_4, HFC gases, and anthropogenic black carbon. CH_4 has lifetime of 12 years and a 20-year GWP of 72. HFC gases have lifetimes of 1.4 to 52 years and a 20-year GWP of 437 to 6,350. Anthropogenic black carbon has a lifetime of a few days to weeks and a 20-year GWP of 3,200. The Proposed Plan's emission sources are not major contributors of HFC and black carbon; thus, they are not discussed herein.

Greenhouse Gas Reporting

A GHG inventory is a quantification of all GHG emissions and sinks (a process, activity, or mechanism that removes a GHG from the atmosphere) within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a building or person). Although many processes are difficult to evaluate, several agencies have developed tools to quantify emissions from certain sources. Table 3.6-1 outlines the most recent global, national, statewide, and local GHG inventories to help contextualize the magnitude of potential project-related emissions.

3 Intergovernmental Panel on Climate Change, Climate Change 2021: The Physical Science Basis [Table 7.15], Working Group I Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)] (Cambridge, United Kingdom and New York, NY, USA: Cambridge University Press): 2021, https://doi.org/10.1017/9781009157896.

4 United States Environmental Protection Agency, "Understanding Global Warming Potentials," Greenhouse Gas Emissions, Last updated April 18, 2023, https://www.epa.gov/ghgemissions/understanding-global-warming-potentials#Learn%20why.

5 California Air Resources Board, Short-Lived Climate Pollutant Reduction Strategy, March 14 2017, https://ww2.arb.ca.gov/sites/default/files/2018-12/final_slcp_report%20Final%202017.pdf.

Table 3.6-1: Recent Global, National, State, and Regional Greenhouse Gas Emission Inventories

Emissions Inventory	*Total Emissions ($MTCO_2e$)*
2021 United Nations Global Inventory[1]	52,800,000,000
2021 United Nations Global Inventory – United States[1]	6,340,228,290
2020 CARB State Inventory	369,200,000
2020 AMBAG Regional GHG Emissions Inventory	5,099,042
2020 AMBAG Community-wide Inventory – City of Monterey[2]	227,061

$MTCO_2e$ = metric tons of carbon dioxide equivalent

Notes:

1. Excludes removal of atmospheric carbon due to land use, land use change, and forestry.
2. Includes only GHG emissions from community sources, excluding emissions from City (municipal) government facilities and operations.

Sources: UN Environment Programme Emissions Gap Report, 2022;[6] UN Framework Convention on Climate Change GHG Data Time Series – Annex I;[7] CARB California Greenhouse Gas Emissions for 2000 to 2020, 2022;[8] AMBAG 2045 MTP/SCS Final EIR, 2022;[9] AMBAG, Draft City of Monterey 2020 Community-Wide Greenhouse Gas Inventory[10]

The City of Monterey prepared its first GHG emissions inventory as part of a regional initiative to establish 2005 baseline inventories and measure progress toward the AB 32 target for 2020. Since then, AMBAG has developed updated GHG inventory reports for local jurisdictions, including for inventory years 2010, 2015, 2018, 2019, and 2020. According to the 2020 Community-wide GHG Emissions Inventory prepared by AMBAG for the City of Monterey, the primary sources of GHG emissions in Monterey are transportation (65.3 percent), commercial/industrial energy use (16.6 percent), and residential energy use (13.3 percent). Solid waste contributes only 4.8 percent, and wastewater contributes less than one percent. In total, energy use represents 30 percent of GHG

[6] United Nations Environment Programme, Emissions Gap Report 2022: The Closing Window — Climate crisis calls for rapid transformation of societies — Executive Summary, Nairobi, 2022, https://www.unep.org/emissions-gap-report-2022.

[7] United Nations Framework Convention on Climate Change, Greenhouse Gas Inventory Data - Time Series – Annex I [Last inventory year 2021], Accessed December 28, 2023, https://di.unfccc.int/time_series?_gl=1*3vcm6r*_ga*NjE1NjIwMzgxLjE3MDE0NTQxOTE.*_ga_7ZZWT14N79*MTcwMTQ1OTM1Ny4yLjAuMTcwMTQ1OTM1OC4wLjAuMA.

[8] California Air Resources Board, California Greenhouse Gas Emissions for 2000 to 2020, October 26, 2022, https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf.

[9] Association of Monterey Bay Area Governments, 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy Final Environmental Impact Report, June 2022, https://www.ambag.org/sites/default/files/2022-06/AMBAG%202045%20MTP%20SCS%20RTP%20FEIR%20June%202022-PDF-A.pdf.

[10] Association of Monterey Bay Area Governments, Draft City of Monterey 2020 Community-Wide Greenhouse Gas Inventory, July 2022, https://files.monterey.org/Document%20Center/CommDev/Sustainability/Climate-Change/CoM-Draft-2020-Community-wide-GHG-Inventory-Report.pdf.

emissions and predominantly consists of natural gas use by commercial/industrial uses (42.1 percent) and residential uses (40.1 percent), with electricity making up the remaining 17.8 percent.[11]

Table 3.6-2 shows the change in Monterey's GHG emissions from 2005 to 2020. Overall, communitywide GHG emissions have declined since 2005, with a 29 percent reduction below 2005 levels in 2020. The greatest reduction in 2020 is from the energy sector, primarily from commercial/industrial energy use. The transportation sector has seen consistent reductions over time. Other sectors have fluctuated, especially water, mostly attributed to the small amount of emissions in this category.

Table 3.6-2: City of Monterey Community Greenhouse Gas Emission Inventory, 2005-2020

	Emissions ($MTCO_2e$)			
Sector	*2005*	*2010*	*2015*	*2020*
Transportation	184,086	163,093	164,570	148,281
Energy	123,957	127,601	102,868	67,722
Commercial/Industrial	*80,387*	*84,258*	*69,664*	*37,588*
Residential	*43,570*	*43,343*	*33,204*	*30,134*
Waste	13,215	9,361	9,341	10,972
Water	68	71	61	87
Total	**321,326**	**300,126**	**276,840**	**227,061**
Percent below 1990 levels[2] (273,127 $MTCO_2e$)	-18%	-10%	-1%	17%

$MTCO_2e$ = metric tons of carbon dioxide equivalent

Notes:

1. 2005 Baseline from the City of Monterey Draft 2020 GHG Inventory Report differs from the 2005 baseline included in the City of Monterey Climate Action Plan due to difference in calculation methodology; all inventory years shown in this table are from the same source to allow accurate comparison.
2. Estimated as 15% below 2005 levels, as used in the City of Monterey Climate Action Plan due to the absence of accurate local data for 1990.

Source: AMBAG, Draft City of Monterey 2020 Community-Wide Greenhouse Gas Inventory, 2022.

In the absence of sufficient, accurate data to calculate levels of GHG emissions in 1990, local jurisdictions are allowed to use the earliest GHG inventory to serve as a proxy for 1990; based on guidance from CARB, the City of Monterey uses 15 percent below the 2005 inventory as an estimate of 1990 levels.[12] In other words, the 1990 level of GHG emissions from the City of Monterey is about

[11] City of Monterey, City Council Study Session Presentation: Climate Change Update, October 26, 2022, https://files.monterey.org/Document%20Center/CommDev/Sustainability/Climate-Change/Climate-Change-SS-October-2022.pdf.

[12] City of Monterey, Climate Action Plan, March 2016 [Adopted June 2016], https://files.monterey.org/Document%20Center/CommDev/Sustainability/Climate_Action_Plan.pdf.

273,127 $MTCO_2e$. Table 3.6-2 shows the percent reduction from 1990 levels, including that Monterey met (and exceeded) the AB 32 target of achieving 1990 levels by 2020.

Potential Climate Change Effects

Climate change is a complex process that has the potential to alter local climatic patterns and meteorology. Although modeling indicates that climate change will result in sea level rise (both globally and regionally) as well as changes in climate and rainfall, among other effects, there remains uncertainty about characterizing precise local climate characteristics and predicting precisely how various ecological and social systems will react to any changes in the existing climate at the local level. Regardless of this uncertainty, it is widely understood that substantial climate change is expected to occur in the future, although the precise extent will take further research to define.

The California Climate Change Assessment documents the effect of climate change throughout the state, including rising temperatures and associated extreme heat events, changing precipitation patterns and potential for flooding and drought, declining Sierra Nevada snowpack levels and associated impacts on water supply, coastal sea level rise, and compounded effects of climate impacts such as greater risk for wildfire.[13] These climate change effects pose direct and indirect risks to public health, as people will experience earlier death and worsening illnesses. Indirect impacts on public health include increased vector-borne diseases, stress and mental trauma due to extreme events and disasters, economic disruptions, and residential displacement.[14]

ENERGY

Energy resources in the State of California include natural gas, electricity, water, wind, oil, coal, solar, geothermal, and nuclear resources. Energy production and energy use both result in the depletion of nonrenewable resources, such as oil, natural gas, and coal, and result in the emissions of pollutants. This section discusses the existing conditions related to energy statewide, regionally, and in the Planning Area.

State Energy Resources and Use

California has a diverse portfolio of energy resources that produced 2,152 trillion British thermal units (BTUs) in 2021.[15] Excluding offshore areas, California ranked seventh in the nation in crude oil (petroleum) production in 2022, producing the equivalent of 765.9 trillion BTUs. California ranked second in total renewable energy generation, with 1,053.6 trillion BTUs. Other energy sources in California include natural gas (160.8 trillion BTUs) and nuclear (172.1 trillion BTUs). Additionally, due to the mild Mediterranean climate and strict energy-efficiency conservation requirements, California has lower energy consumption rates than most parts of the United States. According to the U.S. Energy Information Administration (EIA), California consumed

13 California Natural Resources Agency, California's Fourth Climate Change Assessment Statewide Summary Report, January 16, 2019, https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf.

14 Ibid.

15 U.S. Energy Information Administration, California State Energy Profile, Last updated September 21, 2023, https://www.eia.gov/state/print.php?sid=CA.

approximately 7,359 trillion BTUs of energy in 2021. California's per capita energy consumption of 198 million BTUs is one of the lowest in the country and is ranked 48th in the nation for 2021.

In 2021, natural gas made up the greatest share of energy consumption (2,172.8 trillion BTUs or 31.2 percent); followed by motor gasoline (1494.9 trillion BTUs or 21.5 percent); distillate and jet fuel (950.2 trillion BTUs or 13.7 percent); renewable energy, including hydroelectric power, biomass, and other renewables (814.3 trillion BTUs or 11.7 percent); and interstate electricity (623.9 trillion BTUs or 9.0 percent); with the balance coming from a variety of other sources. Of the natural gas consumed, industrial uses consumed approximately 34.2 percent, followed by electric power generation (30.7 percent), residential uses (21.4 percent), commercial uses (11.4 percent), and transportation uses (2.2 percent).

In 2021, the transportation sector consumed the highest quantity of energy (2,783.9 trillion BTUs or 41.2 percent), followed by the industrial (1,595.5 trillion BTUs or 23.6 percent), residential (1,228.5 trillion BTUs or 18.2 percent), and commercial (1,156.8 trillion BTUs or 17.1 percent) sectors. Per capita energy consumption in general is declining because of improvements in energy efficiency and design. However, despite this reduction in per capita energy use, the State's total overall energy consumption (i.e., non-per capita energy consumption) is expected to increase over the next several decades as a result of growth in population, jobs, and vehicle travel.

Regional Energy Resources and Use

Pacific Gas and Electric (PG&E) provides natural gas and electricity services to the majority of Northern California, including the City and the project site. PG&E's service extends from Eureka to Bakersfield (i.e., north to south) and from the Sierra Nevada to the Pacific Ocean (i.e., east to west). PG&E purchases gas and power from a variety of sources, including other utility companies. PG&E also obtains energy supplies from power plants and natural gas fields in northern California. PG&E operates a grid distribution system that channels all power produced at the various generation sources into one large energy pool for distribution throughout the service territory. PG&E provides all of the natural gas and electric infrastructure in Monterey County and in the City of Monterey. However, Central Coast Community Energy (3CE, formerly Monterey Bay Community Power) provides electricity to customers throughout Monterey, San Benito, San Luis Obispo, Santa Cruz, and Santa Barbara counties using PG&E infrastructure unless individuals choose to opt out of the program, at which point, the default electricity provider is PG&E (or Southern California Edison [SCE] for southern Santa Barbara County).

As a Community Choice Aggregator under Assembly Bill (AB) 117 (2002), 3CE is the official electricity provider for the City of Monterey. 3CE's power comes from a mix of various sources, including solar, wind, geothermal, biomass and biowaste, and hydroelectric generation resources. 3CE delivers power to its customers via existing utility infrastructure owned by PG&E (or SCE in southern Santa Barbara County). 3CE allows customers to choose between two different electricity product operations: 3CE Choice, which contains about 35.8 percent renewable resources as

electricity sources, and 3CE Prime, which contains 100 percent renewable resources as electricity sources.[16]

In Monterey County, a total of 115 million therms of natural gas were consumed in 2021, which is 0.5 percent of the State's total consumption in 2021.[17] In 2021, natural gas in Monterey County was primarily consumed by the non-residential sector (53.8 percent), followed by the residential sector (46.2 percent). In 2021, Monterey County consumed a total of 2,480.9 million kilowatt-hours (kWh) of electricity, which is about 1.0 percent of the State's total consumption (247.3 billion kWh).[18] In the county, electricity was primarily consumed by the non-residential sector (71.0 percent), followed by the residential sector (29.0 percent) in 2021.

Planning Area Energy Resources and Use

The approximately 5,522-acre Planning Area is comprised of public and quasi-public uses (24.4 percent), residential uses (24.6 percent), parks and open space (16.4 percent), commercial uses (4.5 percent), and industrial uses (1.4 percent). About 5.2 percent of the Planning Area is vacant land.

The energy consumption analysis in this EIR is based on the change in energy consumption from future development under the Proposed Plan (pipeline projects and new development) compared to energy consumed by existing development. Assumptions are consistent with the air quality, GHG emissions, and transportation analyses. PG&E provides natural gas to the Planning Area, and 3CE provides electricity using PG&E infrastructure, unless individuals choose to opt out of the 3CE, in which case PG&E provides electricity.

CITY OF MONTEREY GHG REDUCTION AND ADAPTATION EFFORTS

On October 26, 2022, the Monterey City Council received an update on the City's progress toward its climate objectives and the GHG reduction targets established in the 2016 Climate Action Plan (CAP), described further in the Regulatory Settings below.[19],[20] The staff report provides an update on the mitigation/adaptation measures that the City has undertaken since the passage of AB 32 as well as makes recommendations for future areas of focus. Recent or planned mitigation/adaptation efforts since adoption of the CAP include:

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16 Central Coast Community Energy, 2022 Power Content Label, version September 2023, https://3cenergy.org/wp-content/uploads/2023/09/PCL-Postcard-2023Sep-final-web.pdf.

17 California Energy Commission, Gas Consumption by County [Retrieved for Monterey County, All Sectors, 2021], Retrieved on December 1, 2023, https://ecdms.energy.ca.gov/gasbycounty.aspx.

18 California Energy Commission, Electricity Consumption by County [Retrieved for Monterey County, All Sectors, 2021], Retrieved on December 1, 2023, https://ecdms.energy.ca.gov/elecbycounty.aspx.

19 K.Cole, T. Terrasas, F.Roveri, Council Agenda Report: Climate Change Update, Council Special Meeting [Council Study Session], City of Monterey, October 26, 2022, [https://isearchmonterey.org/OnBaseAgendaOnline/Documents/ViewDocument/AGENDA-REPORT.DOCX?meetingId=5179&documentType=Agenda&itemId=34013&publishId=21645&isSection=false.

20 City of Monterey. March 2016. Climate Action Plan. Available: https://monterey.org/Document%20Center/CommDev/Sustainability/Climate_Action_Plan.pdf. Accessed: January 17, 2024.

- In 2018, the City became a founding member of 3CE (described above), which is on track to provide 100-percent renewable energy by 2030. About 96 percent of eligible accounts in the City of Monterey are enrolled.
- The City is considering larger solar panel installation projects where excess power can be generated at the Ryan Ranch Corporation yard utilized to offset power usage at other City properties.
- The City has transitioned all light-duty passenger vehicles to electric or hybrid vehicles and is planning to transition the remaining trucks and other heavier-duty vehicles.
- The City has approved a larger electric vehicle project at Municipal Wharf 1 (Fisherman's Wharf, located at Washington Street and Del Monte Avenue) for 17 Tesla electric vehicle superchargers.
- The City continues to invest in its adaptive traffic signal system, which is estimated to result in a yearly reduction of 20 tons of criteria pollutants (nitrogen oxide, reactive organic gases, and particulate matter; see EIR Section 3.3: Air Quality for more information), once all primary corridors are running on an adaptive system.
- In 2018, the City adopted an ordinance (Ord. 3590 §5) to ban disposable food service ware.
- The City received funds from the Caltrans Adaptation Planning Grant and subsequently conducted a study ("Adapting a Threatened Transportation Network to Sea Level Rise") that showed where the greatest sea level rise impacts will be felt. This study provided a variety of recommendations for sea level rise adaptation strategies that will inform preferred alternatives.
- Future considerations may include providing infrastructure and charging stations to support use of electric vehicles, as well as adopting building electrification and efficiency standards that would incentivize or require the transition to an all-electric built environment.

Regulatory Setting

FEDERAL

United States Environmental Protection Agency

Greenhouse gases are broadly regulated by the EPA under the Clean Air Act (42 USC §7401 et seq. Section 202[a]), especially where motor vehicles and large stationary sources are concerned. Primarily, the EPA is responsible for measuring greenhouse gas emissions through the annual Inventory of U.S. GHG Emissions and Sinks report and the GHG Reporting Program; reducing emissions through regulatory initiatives and partnership programs; and conducting analyses and research to continually improve energy efficiency and clean energy policies and programs.

In 2021, President Biden issued Executive Order (EO) 13990 (Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis), which seeks to reduce greenhouse gas emissions and bolster resilience to impacts of climate change, among other objectives. In response, EPA has is considering rulemaking proposals that would affect some of the nation's largest

sources of climate- and health-harming pollution, such as the transportation, oil and natural gas, and power sectors. These rules would build on recent regulations and efforts such as those that limit chemicals with high GWPs, such as HFCs, revisions to emissions and fuel use standards for new light- and heavy-duty motor vehicles (described below), updated GHG emission limits from fossil fuel-fired power plants, and continual improvements to the GHG Reporting Program.[21]

Corporate Average Fuel Economy (CAFE) Standards

The National Highway Traffic Safety Administration (NHTSA) Corporate Average Fuel Economy (CAFE) standards require substantial improvements in fuel economy and reductions in emissions of criteria air pollutants and precursors, as well as GHGs, from vehicles sold in the U.S. The CAFE standards regulate how far vehicles must travel on a gallon of fuel, with standards for light-duty vehicles (passenger cars and light trucks) and separately for medium- and heavy-duty trucks and engines. The light-duty vehicle fuel economy standards are established for model years through 2026, and heavy-duty vehicle standards are established for model years through 2027. Current standards are expected to result in more than three billion tons of GHG emissions reductions (overall) through 2050. [22] The next phase of standards, applying to model year 2027 and beyond, are currently underway. In parallel, EPA is planning to establish a rule for multi-pollutant emissions standards under the Clean Air Act and other efforts to speed the transition of light-duty vehicles toward zero-emissions, consistent with EO 14037 (Strengthening American Leadership in Clean Cars and Trucks).

Carbon Pollution Standards and Clean Power Plan

On August 3, 2015, the EPA finalized the Carbon Pollution Standards, which established national limits on the amount of carbon pollution that new, modified, and reconstructed power plants would be allowed to emit. On the same date, the EPA also finalized the Clean Power Plan, setting national limits on carbon pollution from existing power plants.

Energy Policy Act and Energy Independence and Security Act

The Energy Policy Act of 2005 (52 USC §13201 et seq.) addresses energy production, energy consumption and security, energy efficiency, energy resources including renewable energy, energy tax incentives, and climate change technology. The act also provides loan guarantees for entities that develop or use innovative technologies that reduce GHG emissions. The Energy Independence and Security Act of 2007 (EISA, Public Law 110-140) aims to move the U.S. toward greater energy independence and security, increase production of clean renewable fuels, protect consumers, increase energy efficiency, promote research on GHG reductions, improve energy performance of the federal government, and improve vehicle fuel economy. The EISA reinforces EO 13423 (Strengthening Federal Environmental, Energy, and Transportation Management, signed by President Bush in 2007). EPA develops, implements, and revises regulations and voluntary

[21] United States Environmental Protection Agency, "Climate Change Regulatory Actions and Initiatives," Last Updated on July 20, 2023, https://www.epa.gov/climate-change/climate-change-regulatory-actions-and-initiatives.

[22] National Highway Traffic Safety Administration, "Corporate Average Fuel Economy," U.S. Department of Transportation, last updated September 28, 2023, accessed November 21, 2023, https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy.

programs under the EISA through the CAFE Standards (described above), federal vehicle fleets, Renewable Fuel Standards (RFS) (described below), biofuels infrastructure, and carbon capture and sequestration.[23]

Renewable Fuel Standards Program

As authorized under the Energy Policy Act of 2005 and expanding on the EISA, the RFS Program establishes annual standards to reduce GHG emissions and expand the nation's renewable fuels sector while reducing reliance on imported oil by reducing the quantity of petroleum-based transportation, heating oil, or jet fuel with biomass-based diesel, cellulosic biofuel, advanced biofuel, or total renewable fuel. EPA updated the RFS for 2023-2025 in June 2023; the final rule includes steady growth of biofuels for use in the nation's fuel supply during this time period.[24]

Municipal Solid Waste Landfills Emissions Guidelines

In 2016, EPA updated the 1996 New Source Performance Standards to reduce emissions of methane-rich landfill gas. The 2016 Emissions Guidelines and Compliance Times for Municipal Solid Waste Landfills are implemented via a federal plan (issued in 2021) that includes the same elements as required for a state plan: identification of implementation mechanisms, inventory of designated facilities, emissions inventory and limits, compliance schedules, process for EPA/state review of design plans for site-specific gas collection and control systems, monitoring and reporting requirements, and public hearing requirements.

STATE

Global Warming Solutions Act of 2006 (AB 32) and Statewide GHG Objectives

Reducing GHG emissions in California has been the focus of the State government for approximately two decades. GHG emission targets established by the State legislature include reducing statewide GHG emissions to 1990 levels by 2020 (AB 32) and then reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32, 2016), consistent with the target in EO B-30-15. EO S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. The State has achieved its goal for 2020 and is on track to achieving the goal for 2030, with ambitious plans (per EO B-55-18 and AB 1279 of 2022) to meet a more stringent goal of statewide carbon neutrality as soon as possible but no later than 2045 and maintain net negative emissions thereafter, ahead of the previously established goal for 2050. As detailed in AB 1279, the State's carbon neutrality goal translates to a reduction of GHG emissions to at least 85 percent below 1990 levels.

AB 32 also authorized CARB to administer the State's Cap-and-Trade program, which covers GHG sources that emit more than 25,000 $MTCO_2e$ per year, such as refineries, power plants, and

[23] United States Environmental Protection Agency, "Summary of the Energy Independence and Security Act," Last updated April 25, 2023, https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act.

[24] United States Environmental Protection Agency, "Final Renewable Fuels Standards Rule for 2023, 2024, and 2025," Last updated September 21, 2023, https://www.epa.gov/renewable-fuel-standard-program/final-renewable-fuels-standards-rule-2023-2024-and-2025.

industrial facilities. The Cap-and-Trade Regulation establishes a declining limit on these major sources, which cover approximately 80 percent of the State's GHG emissions, as an economic incentive for significant investment in cleaner, more efficient technologies. All covered entities in the Cap-and-Trade Program are still subject to existing air quality permit limits for criteria and toxic air pollutants.

AB 32 Scoping Plan

Per AB 32, CARB prepares a Scoping Plan that lays out the State's path to achieving its GHG emissions reduction targets. Most recently, the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) outlines the main strategies California will implement to achieve the legislated GHG emissions target for 2030 and "substantially advance toward our 2050 climate goals."[25] It also identifies the reductions needed by each GHG emission sector (e.g., industry, transportation, electricity generation), as well as places new emphasis on transitioning natural and working lands from a net emissions source (due to wildfires) to a carbon sink (via carbon sequestration). Unlike previous updates, the 2022 Scoping Plan does not include specific recommendations for local GHG emissions reductions targets or efficiency metrics (which were previously provided on a per capita and per service population basis). Rather, the 2022 Scoping Plan's Appendix D: Local Actions provide recommendations that focus on plans, measures, policies, and actions that local jurisdictions can take to ensure alignment with State climate goals. These "priority GHG reduction strategies" address transportation electrification, vehicle miles traveled (VMT) reduction, and building decarbonization as the primary, most effective ways that local jurisdictions can contribute to statewide GHG emissions reduction. The 2022 Scoping Plan recommends that local jurisdictions adopt these strategies as part of CEQA-qualified climate action plans (CAPs) and thereby be consistent with the State's Scoping Plan. Methods of determining consistency with the Scoping Plan are discussed in the Impacts Analysis section below.

State CEQA Guidelines

CEQA Guidelines Section 15064.4 provides guidance to lead agencies for determining the significance of environmental impacts pertaining to GHG emissions. CEQA Guidelines Section 15064.4(a) states that a lead agency should make a good-faith effort that is based, to the extent possible, on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions that would result from implementation of a project. CEQA Guidelines Section 15064.4(b) also states that, when assessing the significance of impacts from GHG emissions, a lead agency should consider: (1) the extent to which the project may increase or reduce GHG emissions compared with existing conditions, (2) whether the project's GHG emissions would exceed a threshold of significance that the lead agency has determined to be applicable to the project, and (3) the extent to which the project would comply with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

The California Supreme Court's decision in *Center for Biological Diversity v. Department of Fish and Wildlife* (62 Cal. 4th 204), known as the "Newhall Ranch decision," confirmed that there are multiple

25 California Air Resources Board. 2017. California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target. November. Pages 1, 3, 5, 20, 25, and 26. Available: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed: August 16, 2021.

potential pathways for evaluating GHG emissions consistent with CEQA. Several air quality management agencies throughout the state have also drafted or adopted varying threshold approaches and guidelines for analyzing GHG emissions in CEQA documents. Common threshold approaches include (1) compliance with a qualified GHG reduction strategy, (2) performance-based reductions, (3) numeric "bright-line" thresholds, (4) efficiency-based thresholds, and (5) compliance with regulatory programs. While the Newhall Ranch decision upheld use of the Scoping Plan's statewide goal of reducing GHG emissions as a threshold of significance for GHG emissions, if applied to a local project, the EIR must provide supporting evidence that the project emissions relate to the Scoping Plan. (See *Tsakopoulos Investments v. County of Sacramento* (2023) 95 Cal.App.5th 280.)

Low Carbon Fuel Standards

Approved in 2009 and implemented beginning in 2011, the Low Carbon Fuel Standards (LCFS) are one of the early action measures of the AB 32 Scoping Plan to reduce statewide GHG emissions by improving vehicle technology, reducing fuel consumption, and increasing transportation mobility options. The LCFS assess direct emissions associated with producing, transporting, and using fuels and indirect emissions such as from land use changes for biofuels. Transportation fuel providers that must demonstrate that the mix of fuels they supply for use in California meets the LCFS carbon intensity standards for each annual compliance period. The LCFS were last updated in 2020 and reflect carbon intensity benchmarks through 2030, in line with SB 32.

Pavley Rules (AB 1493) and Advanced Clean Cars Program

Building on AB 1493 (also known as "Pavley I"), which requires CARB to adopt light-duty vehicle emissions standards beginning in 2009, the Advanced Clean Cars Program (formerly referred to as "Pavley II") combines several regulations, including the Low-Emission Vehicle (LEV) criteria and GHG regulations and the zero-emission vehicle (ZEV) regulation, into a single package. Advanced Clean Cars I, adopted in 2012, addressed vehicle model years 2015 through 2025 and was developed in coordination with EPA and NHTSA to harmonize GHG and fuel economy standards. The Advanced Clean Cars II regulations were adopted in 2022, imposing increasingly stringent low-emission and zero-emission vehicle standards for model years 2026 through 2035. Advanced Clean Cars II implements EO N-79-20, issued in September 2020, that established a statewide goal that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035, 100 percent of medium-and heavy-duty vehicles in the State will be zero-emission by 2045 for all operations where feasible, and 100 percent of all drayage trucks will be zero-emission by 2035 where feasible. EO N-79-20 also establishes a goal to transition to 100 percent zero-emission off-road vehicles and equipment by 2035 where feasible. Amendments to Advanced Clean Cars II, including updates to tailpipe GHG emissions standard and limited revisions to the LEV and ZEV regulations, were proposed in October 2023 and are currently under consideration.[26]

[26] California Air Resources Board, "Advanced Clean Cars Program – About," Accessed December 12, 2023, https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about.

Electric Vehicle Charging Infrastructure (SB 454, SB 123, and EO B-48-18)

In complement to the Advanced Clean Cars Program, CARB's Electric Vehicle Supplement Equipment (EVSE or EV Charging Station) Standards Regulation establishes requirements for EV charging stations to implement SB 454 (Electric Vehicle Charging Stations Open Access Act of 2013). Signed in 2018, EO B-48-18 includes a $2.5-billion initiative to construct 250,000 vehicle charging stations and 200 hydrogen fueling stations in California by 2025. In July 2023, SB 123 modified SB 454 to better harmonize with the National Electric Vehicle Infrastructure (NEVI) Program established in 2022, and the legislation also grants the California Energy Commission (CEC) authority to develop a new regulation that will supersede the current CARB-adopted rule.[27]

Vehicle Miles Traveled Metrics (SB 743)

Per SB 743 (2013), the Governor's Office of Planning and Research (OPR) implemented changes to the California Environmental Quality Act (CEQA) Guidelines, including the addition of Section 15064.3, which requires CEQA transportation analyses to move away from a focus on vehicle delay and level of service (LOS). In support of these changes, OPR published a Technical Advisory on Evaluating Transportation Impacts in CEQA, which recommends that the determination of the transportation impact of a project be based on whether project-related VMT per capita (or VMT per employee) would be 15 percent lower than that of existing development in the region. OPR's technical advisory explains that this criterion is consistent with Section 21099 of the California Public Resources Code, which states that the criteria for determining significance must "promote the reduction in greenhouse gas emissions."[28]

Renewable Portfolio Standards (SB 1078 and SB 107) and 100 Percent Clean Energy Act (SB 100)

The Renewable Portfolio Standards (RPS) were established in 2002 under SB 1078 and accelerated in 2006 under SB 107. The RPS requires increasing proportions of energy production from renewable sources including solar, wind, geothermal, and biomass generation. Electricity providers, such as PG&E, have been required to increase their renewable portfolio by one percent year over year. SB 100 (the 100 Percent Clean Energy Act of 2018) updated the RPS to ensure that by 2030, at least 60 percent of California's electricity is renewable. The legislation also sets a 2045 goal of powering all (100 percent) retail electricity sold in California and State agency electricity needs with renewable and zero-carbon resources.

Clean Energy and Pollution Reduction Act of 2015 (SB 350)

The Clean Energy and Pollution Reduction Act (SB 350) established clean energy, clean air, and GHG reduction goals. Specifically, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030, utilizing RPS eligible resources (described above). To double statewide energy efficiency savings in electricity and natural gas by

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[27] California Air Resources Board, "Electric Vehicle Supple Equipment (EVSE) Standards," Accessed December 12, 2023, https://ww2.arb.ca.gov/our-work/programs/electric-vehicle-supply-equipment-evse-standards.

[28] Governor's Office of Planning and Research, Technical Advisory on Evaluating Transportation Impacts in CEQA, December 2018, https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf.

2030, SB 350 also requires large utilities to submit integrated resource plans (IRPs) that detail how they will meet their customers' resource needs, reduce GHG emissions, and ramp up the use of clean energy resources. The CPUC, CARB, and CEC coordinate to support transportation electrification. They also identify and assess barriers to and opportunities for solar photovoltaic energy generations, access to other renewable energy, barriers to energy efficiency and weatherization investments, barriers to contracting opportunities for local small businesses, and access to zero- and near-zero-emission transportation options – specifically for low-income customers, including those in disadvantaged communities.

AB 802, also signed into law in 2015, supports SB 350 by authorizing the CEC to create a building energy-use benchmarking and disclosure program to improve the development and evaluation of policy and programs and the state's energy infrastructure planning efforts. AB 802 also authorizes electrical and gas corporations to provide financial incentives to their customers that increases the energy efficiency of existing buildings based on all estimated energy savings and energy usage reductions.[29]

Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the California Code of Regulations (CCR), Title 24, Part 6, Building Energy Efficiency Standards (also referred to as the Energy Code). The CEC updates the Energy Code every three years with more stringent design requirements to reduce energy consumption, resulting in lower GHG emissions. The 2022 Energy Code, which was adopted in August 2021 and took effect on January 1, 2023, encourages efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more. The 2022 Energy Code also introduces new requirements for low-rise multifamily buildings. According to the Impact Analysis of the 2022 Energy Code, the 2022 update would save 5,472 giga BTUs (GBTUs) of site energy, 1,565 gigawatt-hours (GWh) of electric energy, 14.39 million therms of gas energy, 46,782 giga time-dependent valuation energy, 2,954 GBTUs of hourly source energy, and 285,214 $MTCO_2e$ per year over the 2019 Energy Code, while also providing an annual non-coincident peak demand reduction of 123 megawatts (MW).[30]

Green Building Standards Code (Title 24, Part 11)

CCR, Title 24, Part 11 constitutes the California Green Building Standards Code, known as CALGreen, which is the nation's first mandatory green building standards code developed by the California Building Standards Commission (CSBSC) in 2007 to meet the goals of AB 32. CALGreen applies to nonresidential structures including new buildings or portions of new buildings, additions and alterations, and all occupancies where no other state agency has the authority to adopt green

[29] California Energy Commission, "Clean Energy and Pollution Reduction Act – SB 350," Accessed December 13, 2023, https://www.energy.ca.gov/rules-and-regulations/energy-suppliers-reporting/clean-energy-and-pollution-reduction-act-sb-350.

[30] California Energy Commission, 2022 Energy Code Impact Analysis (TN #: 250892), [Prepared by NORESCO and Frontier Energy], June 30, 2023, Available at: https://www.energy.ca.gov/publications/2023/impact-analysis-2022-update-california-energy-code.

building standards applicable to the occupancies. The code features: regulations for energy efficiency, water efficiency and conservation, material conservation and resource efficiency, environmental quality, and more; mandatory provisions for commercial, residential, and public school buildings; appendices with voluntary provisions for all of these occupancies, plus hospitals; and residential and nonresidential provisions. Voluntary measures are often referred to by their level of achieving enhanced construction or incorporation of additional green building measures beyond the minimum mandatory requirements; "Tier 1" requirements are more stringent than the base mandatory provisions, and "Tier 2" achieves an even higher standard. CALGreen undergoes triennial updates, mostly recently including the 2022 CALGreen Code, which took effect on January 1, 2023.

Solid Waste Diversion (AB 939 and AB 341)

In 2011, AB 341 modified the California Integrated Waste Management Act of 1989 (AB 939) and directed the California Department of Resources Recycling and Recovery (CalRecycle) to develop and adopt regulations for mandatory commercial recycling. AB 341 also established a statewide recycling goal of 75 percent, while the 50-percent disposal reduction mandate established under AB 939 still applies to cities and counties. Although California's infrastructure currently only diverts about half of the state's waste stream and is not large enough to handle the large amount of potentially recyclable materials collected by local governments and partners in the solid waste industry, the State has shifted focus on reducing GHG emissions that have the most immediate impact on climate (i.e., SLCP).

Short-Lived Climate Pollutant Reduction Strategy (SB 1383)

In 2016, SB 1383 directed CARB to approve and implement the SLCP Reduction Strategy to achieve 40 percent reduction in CH_4, 40 percent reduction in HFC gases, and 50 percent reduction in anthropogenic black carbon, relative to 2013 levels by 2030. SB 1383 also establishes targets for reducing organic waste in landfills (50 percent reduction in organic waste disposal relative to 2014 levels by 2020 and 75 percent by 2025) as well as CH_4 emissions from dairy and livestock operations (40 percent reduction relative to the livestock and dairy sectors' 2013 levels by 2030).

CARB adopted the SLCP Reduction Strategy in March 2017 as a framework for achieving the CH_4, HFC, and anthropogenic black carbon reduction targets set by SB 1383. The SLCP Reduction Strategy includes 10 measures to reduce SLCPs, which fit within a wide range of ongoing planning efforts throughout the state. For example, in 2019, CARB and CalRecycle proposed new and amended regulations to CCR Title 14 and Title 27 that set forth minimum standards for organic waste collection, hauling, and composting that took effect on January 1, 2022. Since then, 75 percent of California communities report they have residential organic waste collection in place. According to CalRecycle, California now has 206 organic waste processing facilities, with 20 more on the way.[31]

[31] CalRecycle, "California's Climate Progress on SB 1383," Accessed December 13, 2023, https://calrecycle.ca.gov/organics/slcp/progress/.

Water Conservation Act of 2009 (SB X7-7) and 2018 Water Conservation Legislation (SB 606 and AB 1668)

The Water Conservation Act of 2009 (SB X7-7) requires all water suppliers to increase their water use efficiency and establishes the "20x2020 Water Use Targets" to reduce per capita urban water use by 20 percent as of December 31, 2020. Reductions in water consumption reduce the amount of energy, as well as the emissions, associated with conveying, treating, and distributing the water; emissions from wastewater treatment are also reduced.

The California Department of Water Resources (DWR) collects data and monitors compliance with water use targets and objectives established by SB X7-7 in addition to other reporting requirements (e.g., validated distribution system water loss audits, Urban Water Management Plans, and Model Water Efficient Landscape Ordinances). DWR, in coordination with the State Water Board, also implements the 2018 Water Conservation Legislation (AB 1668 and SB 606), which establish standards to exceed SB X7-7 targets and establish a new framework for long-term improvements in urban water use efficiency and drought planning. The standards do not apply to certain commercial, industrial, and institutional (CII) water uses that are separately subject to CII water use performance measures.

REGIONAL

Association of Monterey Bay Area Governments

The Association of Monterey Bay Area Governments (AMBAG) is the federally designated metropolitan planning organization and council of governments that coordinates planning and programming with the three counties and 18 local jurisdictions within the tri-county Monterey Bay Region. AMBAG oversees metropolitan-level transportation planning; manages the regional transportation demand model; and prepares regional housing, population, and employment forecasts that are utilized in a variety of regional plans.

As determined by CARB, the first per-capita GHG emissions reduction targets for the Monterey Bay Region were three percent by 2020 and six percent by 2035 from 2005 levels. Pursuant to SB 375, AMBAG adopted an SCS into their metropolitan transportation plan (MTP), entitled "Monterey Bay Area Mobility 2035," in 2010, known as the Metropolitan Transportation Plan/Sustainable Communities Strategy (2035 MTP/SCS). The 2040 MTP/SCS ("Moving Forward Monterey Bay 2040") was adopted in June 2018, and the most recent strategic update was adopted in June 2022, entitled "Moving Forward Monterey Bay 2045" but generally referred to as the 2045 MTP/SCS. It is noted that the 2050 MTP/SCS update is currently underway.

The current 2045 MTP/SCS envisions a resilient and sustainable future made possible by coordinating transportation investments with land use patterns to reduce GHGs by providing more direct access to destinations as well as providing alternative transportation options. Two key strategies in the 2045 MTP/SCS include focused growth in high-quality transit corridors and provision of more travel choices as well as a safe and efficient transportation system, in addition to improved access to jobs and education. The 2045 MTP/SCS also supports job creation through economic development, ensures the region's economic competitiveness through strategic investments in freight, and improves environmental outcomes for the region's residents by 2045.

There are six goal areas, each with corresponding policies, that address the regional vision: Access and Mobility, Economic Vitality, Environment, Healthy Communities, Social Equity, and System Preservation Safety. The 2045 MTP/SCS acknowledges that one of the plan's primary goals is to reduce per capita GHG emissions over the next 25 years but that projected population increase will likely result in an absolute growth in demand to move people and goods. Performance measures defined in the 2045 MTP/SCS align with the GHG emissions reduction targets set by CARB: three percent per capita reduction for 2020 and six percent per capita reduction for 2045.[32]

Monterey Bay Air Resources District

The Monterey Bay Air Resources District (MBARD) is the primary agency responsible for addressing air quality concerns in the Monterey Bay Area, including Monterey County. Its role is discussed further in EIR Section 3.3: Air Quality. MBARD has issued advisory annual GHG emission thresholds that help determine the level of significance of a stationary source project's cumulative GHG emissions, outlined in its Guidelines for Implementing the California Environmental Quality Act (CEQA Implementation document), adopted in 1996 and last revised in 2016.[33] A proposed stationary source project (those that would require an Air District permit to operate) would not have a significant GHG impact if operation of the project would both directly and indirectly emit less than the significance level of 10,000 $MTCO_2e$ per year, or if the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (per State CEQA Guidelines Section 15064.4 (b)(3)).

MBARD has also adopted CEQA Air Quality Guidelines, adopted in 1995 and last revised in 2008, to help CEQA lead agencies with determining a project's impact on air quality. Although Chapter 12.0 of the guidelines is reserved to address "Climate Change and Assessment of Project Impacts from Greenhouse Gases," MBARD has not developed any content for the chapter at this time and therefore has not issued any guidance regarding GHGs.

LOCAL

United Nations Urban Environmental Accords

The City of Monterey signed the United Nations Urban Environmental Accords (UEA) in 2007. The UEA lists 21 strategies and related actions for green communities that address energy, waste reduction, urban design, urban nature, transportation, environmental health, and water. Action 3

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[32] Association of Monterey Bay Governments, June 2022, 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (Moving Forward Monterey Bay 2045), Final June 2022, https://www.ambag.org/sites/default/files/2023-04/REVISED2_AMBAG_MTP-SCS_Final_EntireDocument_PDFA_Updated041923.pdf.

[33] Monterey Bay Air Resources District, Guidelines for Implementing the California Environmental Quality Act, Adopted April 1996, Last Revised February 2016, https://www.mbard.org/files/7b79ff940/WatermarkRemovedFebruary2016MBUAPCD_CEQA+Implementation+Guidelines%28update+to+1996+document%29.pdf.

of the UEA encourages cities to conduct GHG emissions inventories and adopt a citywide GHG reduction plan to reduce the jurisdiction's emissions by 25 percent below baseline levels by 2030.

United States Mayors Climate Protection Agreement

The City Council signed the U.S. Mayor's Climate Protection Agreement on July 9, 2007. The agreement includes a series of recommendations and a goal to inventory GHG emissions in municipal operations and the community, set reduction targets, and create an action plan. City government actions span multiple departments and disciplines, categorized by topic area (e.g., water, environmental health, urban design, transportation, urban nature, waste, and energy). The CAP documents the City's progress from 2007 to 2016 in these areas and provides recommendations for additional approaches needed to fully address the issues.

City of Monterey General Plan

The current City of Monterey General Plan was adopted in 2005 and last amended in June 2019. Aside from the Housing, Land Use, Safety, and Circulation elements included in the Proposed Plan (2031 General Plan Update), the current General Plan goals, policies, and programs that are associated with GHGs and energy are excerpted below.

Conservation Element

Goal c. Air Quality: Reduce fixed source and transportation-based air pollution.

> **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.

Goal e. Energy: Encourage the effective and efficient use of energy in all its critical forms by public and private users alike.

> **Policy e.1.** Encourage energy sources, which provide part or all of the energy needed for buildings.
>
> - **Program e.1.1.** Consider aesthetically compatible independent energy sources in existing residential and commercial structures.
> - **Program e.1.2.** Encourage energy retrofitting in existing residential and commercial structures.
>
> **Policy e.2.** Educate the public about energy conservation.
>
> - **Program e.2.1.** Support public education activities that dramatize cost-saving benefits of energy conservation to local consumers.
> - **Program e.2.2.** Encourage the hotel, motel, and restaurant associations to maintain an energy conservation program on a continual basis.

Policy e.3. Work with other local, state, and federal agencies, public utilities, and community organizations to implement energy conservation and longer-range renewable energy development programs.

Monterey City Code

The City of Monterey adopted by reference the 2022 CALGreen Code and 2022 Energy Code (described above) into the Monterey City Code (Ord. 3656, 2022), which are the current versions of the model codes for green building and energy standards. The Monterey City Code also includes other ordinances that support reduction of GHG emissions such as expedited building permit processes for electric vehicle charging stations (Ord. 3575, 2017) and solar systems (Ord. 3520 §2, 2015), as well as waste reduction measures (Ord. 3590 §5, 2018) and water efficient landscapes (Ord. 3545 §11, 2016; Ord. 3444 §1, 2010).

City of Monterey Climate Action Plan

The City of Monterey Climate Action Plan (CAP) was adopted in June 2016 and includes a 2005 baseline GHG emissions inventory, a 2012 GHG emission inventory, and GHG emissions reductions strategies for both community-wide and municipal (government operations) emissions. According to the CAP, the total GHG emissions inventory (from both community and municipal sources) was 327,422 $MTCO_2e$ for the 2005 baseline and 301,814 $MTCO_2e$ for the 2012 update, representing a 7.8 percent reduction.

The City has established four GHG emissions reduction targets, using 2005 as a proxy for 1990 baseline levels in the absence of accurate data for 1990: (1) 15 percent below 2005 levels by 2020, consistent with AB 32; (2) 25 percent below 2005 levels by 2030, consistent with the UEA; (3) seven percent below 2005 levels by 2012, consistent with the U.S. Mayors Climate Protection Agreement; and (4) 80 percent below 2005 levels by 2050, consistent with EO S-3-05. GHG reduction measures quantified in the City of Monterey's CAP include statewide policies, including implementation of Pavley and Low Carbon Fuel Standards (described above) and City-controlled transportation measures to reduce VMT. The VMT reduction measures were developed based on policies, strategies, and actions from the City's General Plan (2005, described further below) and implementation of improvements identified in the Citywide Transportation and Parking Plan.

Based on a review of the 2005 Monterey General Plan goals and policies and strategies outlined in the UEA and the U.S. Mayors Climate Protection Agreement, the CAP recommends that government-related operations (which saw a 29.7-percent reduction from 2005 to 2012) serve as a model for the community (which only decreased by 7.8 percent over the same time period). For example, the City purchases 100 percent of its electricity (for municipal operations) from a renewable energy source provider. Community engagement strategies would strive to implement these successes at the community level, while infrastructure investment strategies would focus on adaptive planning efforts to reduce tailpipe emissions and increase energy efficiency. The CAP also identifies existing activities that contribute to local climate adaptation and priority steps for

adaptation planning. While the adopted CAP recommends that the City develop a comprehensive Climate Adaptation Plan, the CAP itself does not contain adaptation strategies.[34]

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if the Proposed Plan would:

Criterion 1: **Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment;**

Criterion 2: **Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs;**

Criterion 3: **Result in potentially significant environmental impact due to wasteful, inefficient, and unnecessary consumption of energy resources, during project construction or operation; or,**

Criterion 4: **Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.**

GHG Emissions Thresholds

CEQA Guidelines Section 15064.4 directs lead agencies to "make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of greenhouse gas emissions resulting from a project." In alignment with existing laws and regulations (as described in the Regulatory Settings), OPR guidance suggests that lead agencies may take a qualitative or quantitative approach to analyze potential significance of climate change impacts on the environment.

Unlike criteria air pollutants, which are generally considered regional or local concerns, GHGs are global pollutants that are driving global climate change. As discussed in the Environmental Setting, GHGs have long atmospheric lifetimes, and continuous GHG emissions generated worldwide cumulatively contribute to past, present, and future carbon in the atmosphere. Accordingly, generation of GHG emissions by the Proposed Plan are assessed cumulatively, using a combination of qualitative and quantitative methods, where feasible.

The Newhall Ranch decision establishes that lead agencies must reasonably substantiate the applicability of quantitative statewide emissions thresholds, such as those provided in the 2017 and 2022 Scoping Plans, in determining the significance of GHG impacts from a project – especially in consideration of the specific location and scope of the project. As discussed in the Regulatory Setting, existing State laws and regulations have continued to shift the trajectory of statewide GHG

[34] City of Monterey, Climate Action Plan, [Adopted June 2016], March 2016, https://files.monterey.org/Document%20Center/CommDev/Sustainability/Climate_Action_Plan.pdf.

emissions downward, most recently aiming for carbon neutrality by 2045. In response, regulatory programs like the Advanced Clean Cars Program, the Cap-and-Trade program, LCFS, and RPS are examples of market-based approaches that target reductions from significant emissions sources and specific sectors throughout the state. Such regulations are expected to continue to impact local GHG emissions inventories; however, they are not considered sufficient or appropriate measures for mitigating a project's impacts, and local jurisdictions have limited influence over such actions. Rather, recent State guidance encourages local jurisdictions to support statewide objectives to reduce GHG emissions through climate action planning and land use control. Specifically, the 2022 Scoping Plan recommends adoption of a CEQA-qualified CAP and incorporation of key project attributes that reduce GHGs by electrifying transportation, reducing VMT, and decarbonizing buildings.[35] OPR guidance also maintains that a "land use development project that produces low VMT, achieves applicable building energy efficiency standards, uses no natural gas or other fossil fuels, and includes Energy Star appliances where available, may be able to demonstrate a less-than-significant greenhouse gas impact associated with project operation."

As discussed in the Regulatory Settings, there are three quantitative emissions thresholds commonly used to determine the significance level of a project's GHG impacts. These thresholds and their limitations are described below:

- Efficiency-based thresholds are useful for assessing projects of various types, sizes, and locations because they can be expressed on a per-capita basis for residential projects, a per-employee basis for commercial project, or a per-service-population (the sum of jobs and residents) basis for a mixed-use project. Although CARB provided efficiency metrics in the 2017 Scoping Plan (6.0 MTCO2e per capita by 2030 and no more than 2.0 MTCO2e per capita by 2050), these are no longer supported in the 2022 Scoping Plan.
- Numeric bright lines (i.e., not-to-exceed values) provide clear quantitative thresholds, but they are correspondingly specific and therefore limited to certain conditions and applications. For example, the City of Monterey CAP quantified the amount of GHG reductions needed to achieve the established targets, but these numbers are based on the City's 2012 GHG Inventory, which has since been updated by AMBAG for the City of Monterey in a draft document titled City of Monterey 2020 Community-Wide GHG Inventory (Draft 2020 GHG Inventory).
- Performance-based thresholds (e.g., percent reductions from baseline) are established by AB 32, SB 32, EO S-3-05, and EO B-55-18 and are useful for tracking progress toward targets, such as those adopted in the City of Monterey CAP. This is the most applicable threshold for the Proposed Plan. It is noted that this approach requires an accurate "apples-to-apples" comparison between the baseline (e.g., 1990 or 2005) and analysis year emissions in order to properly contextualize the performance levels; it is assumed that quantification

[35] CARB has only developed recommendations for proposed plans and residential and mixed-use (with at least two-thirds residential square footage) development project types at this time and "plans to continue to explore new approaches for other land use types in the future." California Air Resources Board, "Section 3.2: Evaluating Plan-Level and Project-Level Alignment with the State's Climate Goals in CEQA GHG Analyses," 2022 Scoping Plan Appendix D: Local Actions, November 2022, https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf.

methods (described further below) are sufficient to analyze the general magnitude, under a conservative estimate, of the Proposed Plan's impact.

Given the programmatic nature of the Proposed Plan and the corresponding a lack of sufficient information about specific project details, comprehensive and precise levels of GHG emissions cannot be quantified for the Proposed Plan to accurately determine significance based on quantitative thresholds alone. As required under CEQA, GHG emissions generated by the Proposed Plan have been estimated (as feasible), disclosed, and discussed relative to these metrics, but evaluation of the Proposed Plan's impacts is ultimately assessed in combination with the qualitative analysis.

Qualitative thresholds include compliance with a qualified GHG reduction strategy and compliance with applicable regulatory programs. The qualified GHG reduction strategy is the City of Monterey CAP, adopted in 2016. Most, but not all, of the existing State laws and regulations pertaining to GHGs are incorporated into the CAP and its GHG reductions targets, which are established for 2012, 2020, 2030, and 2050. The CAP describes existing City efforts that have reduced business-as-usual emissions in 2012—some of which have lapsed and are no longer relevant to the Proposed Plan—and includes recommended GHG reduction strategies involving community engagement and infrastructure investment. As described in the Regulatory Setting, applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions include AB 32, SB 32, EO S-3-05, EO B-55-18, the 2022 Scoping Plan, and SB 375. According to CARB and OPR, consistency with State efforts for transportation electrification, VMT reduction, and building decarbonization would constitute compliance with these regulations and result in a less-than-significant impact. Consistency with SB 375 is also assessed qualitatively, and conflict with any applicable strategies of AMBAG's 2045 MTP/SCS would constitute a significant impact. The Proposed Plan must align with both qualitative and quantitative criteria to have a less-than-significant impact.

Energy Thresholds

Appendix F of the CEQA Guidelines provides guidance for determining whether a project would result in wasteful, inefficient, or unnecessary consumption of energy resources. As stated in Appendix F, the goal of conserving energy implies the wise and efficient use of energy. The Proposed Plan would have a less-than-significant impact if it includes the following means of achieving this goal:

- Decreasing overall per capita energy consumption.
- Decreasing reliance on fossil fuels such as coal, natural gas, and oil.
- Increasing reliance on renewable energy sources.

The Proposed Plan would have a less-than-significant impact if it is consistent with applicable State and local renewable energy and energy efficiency plans as discussed above under Regulatory Setting. State plans include the Advanced Clean Cars regulations, LCFS, Energy Code standards, SB 350, and SB 100. Each of these plans contain required standards related to energy efficiency and renewable energy development. Local plans that address energy efficiency and are designed to achieve the State's RPS mandates include PG&E's and 3CE's 2022 IRPs and the City's CAP. The current City of Monterey General Plan Conservation Element also includes goals and policies that relate to energy use and reduction.

METHODOLOGY AND ASSUMPTIONS

Greenhouse gas and energy impacts associated with construction and operation of the Proposed Plan were assessed and quantified (where applicable) using standard and accepted software tools, methodologies, and emission factors. A summary of the methodology is provided below.

Construction

As discussed in Chapter 2: Project Description of this Draft EIR, the Proposed Plan would facilitate development of a mix of uses including a range of housing options, as well as other non-residential and mixed-use spaces across the approximately 5,522-acre Planning Area. Implementation of the Proposed Plan could ultimately result in the net new development of up to 5,800 new homes, including single-family homes, accessory dwelling units (ADUs), and multifamily residential units in addition to approximately 2,746,400 sf of research and development, 1,639,400 sf of retail, 344,100 sf of educational, 173,100 sf of public, 126,400 sf of industrial, and 56,200 sf of other business uses.[36]

The land uses that could be developed under the Proposed Plan would generate construction-related GHG emissions from mobile and stationary construction equipment exhaust, employee and haul truck trips, and electricity consumption. The specific size, location, construction techniques and scheduling that would be utilized for each future individual development project occurring within the Planning Area from implementation of the Proposed Plan is not currently known. With an anticipated buildout year of 2031, development of the various land uses associated with the Proposed Plan would be expected to be spread over an extended period of time and would depend on factors such as local economic conditions, market demand, and other financing considerations. Without specific project-level details, it is not possible to develop a refined construction inventory. Consequently, the determination of construction GHG impacts for each individual development project, or a combination of these projects, would require speculation regarding such potential future project-level environmental impacts. Thus, in the absence of the necessary construction information required to provide an informative and meaningful analysis, the evaluation of potential construction-related GHG impacts resulting from implementation of the Proposed Plan is conducted qualitatively in this Draft EIR.

Operations

Long-term operational activities of the Proposed Plan would result in GHG emissions from area, energy, mobile, water, and waste sources. As stated in Chapter 2: Project Description, buildout of the Proposed Plan includes existing development, pipeline development, and new development. The land uses categorized as "existing development" would remain unchanged through 2031, land uses categorized as "pipeline development" include projects that are being reviewed or have been approved by the City but are not yet constructed, and "new development" includes the future development within the Planning Area. Since existing development would remain unchanged, the

[36] GHG modeling analysis is conducted based on the incremental difference in development anticipated through the Proposed Plan buildout year. The amount of development is calculated based on employment density (square feet of building area per employee or job), using the methodology provided by the Southern California Association of Governments. Land use changes used in GHG modeling are consistent with transportation and air quality modeling analysis in this EIR.

GHG analysis focuses on the net change in development, including the land uses associated with the pipeline and new development categories.

GHG emissions from area, energy, mobile, water, and waste sources were estimated using the California Emissions Estimator Model (CalEEMod), version 2022.1.21. Land use and transportation inputs into CalEEMod were scaled to the Proposed Plan and are consistent with those used in the air quality and transportation analyses (Sections 3.3 and 3.13 of this EIR); unless otherwise noted, CalEEMod default inputs and assumptions were retained. Please refer to Appendix H for detailed summary of data utilized in this analysis and CalEEMod output files.

Area sources included emissions from natural gas combustion in residential fireplaces and use of landscape maintenance equipment. The annual activity of natural gas combustion in residential fireplaces and landscaping equipment. Energy sources include emissions from the combustion of natural gas for building heating and hot water, as well as the use of electricity.[37] Mobile sources are a product of the Proposed Plan's scaled daily vehicle trips and VMT and CalEEMod's default emissions factors and vehicle fleet mix, which are derived from CARB's EMissions FACtor (EMFAC) 2021 model (version 1.0.1). Water and wastewater emissions are related to the energy required to supply, distribute, and treat as well as direct emissions from wastewater treatment systems. Solid waste emissions are associated with disposal and landfill gas capture rates (defaulting to statewide averages). CalEEMod version 2022.1.21 also includes GHG emissions from refrigerants, or HFCs.

Energy

As included in CEQA Guidelines Appendix F, environmental considerations in the assessment of energy consumption impacts include the following considerations:

- The degree to which the project complies with existing energy standards.
- The effect of the project on energy resources.
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

Energy impacts associated with construction and operation of the Proposed Plan were assessed and quantified, where applicable, using standard and accepted software tools and techniques. The Proposed Plan's energy consumption was quantified in CalEEMod, with the same inputs and methodology as described above for GHG emissions. Quantified energy consumption includes electricity and natural gas that would be consumed by residences and commercial buildings, in addition to the gasoline and diesel fuel that would be consumed by vehicles traveling to and from the Planning Area, based on an annual VMT of 85,965,780.[38] Existing conditions and future

[37] Electricity emissions for the Proposed Plan were modeled in CalEEMod using emission factor assumptions for PG&E rather than 3CE. The intensity factors applicable to PG&E are slightly different than those applicable to 3CE. Specifically, the 2031 forecasted intensity factor used for modeling for PG&E is 203.983 lb/MWh compared to 6.63 lb/MWh for 3CE. As a result, the electricity emissions modeled for the Proposed Plan are slightly higher than what would be modeled using assumptions for 3CE. Thus, the electricity emissions modeled for the Proposed Plan are conservative and the significance conclusions are not affected by the difference in emission factor assumptions.

[38] Annual VMT based on daily VMT of 247,740 and 347 days of operation per year. Information provided by Kimley Horn Associates.

conditions under the Proposed Plan were quantified and subtracted to calculate the net change in energy consumption from future development under the Proposed Plan. Evaluation of energy impacts is focused on this change; this assumption is consistent with the air quality, GHG, and transportation analyses.

RELEVANT PROPOSED GOALS AND POLICIES

Housing Element

Housing Goal #1. Increase housing supply and facilitate production of at least 3,654 new homes by 2031.

Policy 1.2 Promote infill development in adopted Specific Plan areas where high density residential development can be accommodated in proximity to employment, shopping, transit, recreation, and other services.

Program 1-A Inventory of Available Sites.

Program 1-B Multi-Family Residential Overlay Amendments.

Program 1-C Specific Plan Updates.

Program 1-I Highway 68 Area Plan Update.

Housing Goal #2. Remove or reduce barriers to housing production in Monterey and address the regulatory, process, and market factors that limit and adversely affect affordability.

Program 2-E Revise Parking Requirements.

Program 2-F Update Density Bonus Ordinance.

Program 2-I Inclusionary Zoning.

Program 2-J Water Distribution Policy.

Program 2-K Addressing Water Supply Constraints.

Housing Goal #4. Take action to prevent homelessness and address the needs of unhoused people.

Policy 4.1 Preservation and Rehabilitation. Continue to prioritize funding for the acquisition, rehabilitation, and preservation of affordable housing stock in the community and funding to assist low-income homeowners with home repair, rehabilitation, and accessibility improvements that keep people in their homes.

Program 4-C Housing Rehabilitation Program.

Policy 5.1 Promote energy conservation programs and incentives, including those offered by Central Coast Community Energy.

Policy 5.2 Encourage the incorporation of energy conservation design features in existing and future residential developments to conserve resources and reduce housing costs.

Policy 5.3 Encourage the use of building placement, design, and construction techniques that promote energy conservation, including green building practices, the use of recycled materials, and the recycling of construction and demolition debris.

Housing Goal #5. Continue to promote sustainability and energy efficiency in residential development to lower energy use through energy-efficient urban design and through better design and construction in individual projects.

Program 5-A Energy Efficient Design.

Program 5-B Green Building Incentives.

Program 5-C Sustainable Design.

Land Use Element

Goal A **Establish a compact, sustainable land use and development pattern with boundaries defined by the Santa Lucia Mountains and the Monterey Bay.**

Policy A.1 Foster an integrated mix of employment, housing, educational, visitor-oriented, entertainment, recreational and open space uses throughout the city to support a complete community.

Policy A.2 Balance levels of employment and housing within the community to reduce commute times, improve air quality, and provide more opportunities for those who work in Monterey to live locally.

Policy A.3 Promote a range of residential densities throughout the community to encourage a mix of housing types in varying price ranges and rental rates.

Policy A.4 Focus new development primarily in commercial districts and mixed use neighborhoods so as to support the vitality of existing businesses, optimize the use of utility infrastructure, and reduce vehicle trip frequency, length, and associated emissions.

Goal B **Create and nurture a series of distinctive, walkable, mixed use neighborhoods in Monterey.**

Policy B.1 Develop and implement specific plans and zoning to guide development in the mixed use neighborhoods, recognizing that each mixed use neighborhood is

unique and requires tailored development and design standards, multi-modal improvements, and infrastructure financing strategies.

Policy B.5 Create an attractive, safe environment for bicycles and pedestrians that promotes "micro-mobility" and connectivity to and within the mixed use neighborhoods.

Circulation Element

Goal A **A transportation network that is complemented by land uses that are easily accessible by walking, bicycling, or utilizing transit.**

Policy A.1 Continue to apply land-use planning tools and strategies that support the City's circulation goals and direct growth to areas best served by alternative modes of transportation.

Policy A.2 Continue to use land-use policies to concentrate development within walking distance of the transit system.

Policy A.3 Encourage transit/pedestrian oriented (TOD/POD) designs in mixed-use neighborhoods.

Goal B **A safe and well-maintained roadway system that efficiently moves people and goods across all modes of transportation.**

Policy B.1 Create and maintain a roadway system of "Complete Streets" that is safe and easy to use for all modes of transportation.

Policy B.12 Encourage implementation of the adopted City Traffic Calming Program (TCP) through neighborhood traffic calming plans.

Goal C **A safe, reliable, connected and integrated bicycle transportation network that encourages bicycling as a primary mode of transportation for residents, employees and visitors.**

Policy C.2 Increased bicycle connectivity between neighborhoods and major city and regional destinations.

Policy C.3 Maintain designated bicycle routes as attractive and safe transportation facilities to provide viable alternatives to automobile travel.

Policy C.5 Identify commuter routes, which provide more direct bicycle connections for residents and visitors.

Policy C.6 Establish and maintain a current list of bicycle improvement projects in the City's multimodal plan to create a connected bicycle transportation network.

Policy C.8 Support implementation of regional active transportation networks, such as the Fort Ord Regional Trail and Greenway (FORTAG) and Monterey Bay Sanctuary

Scenic Trail (MBSST), which connect pedestrians and bicyclists from Monterey to the greater Monterey Bay Area.

Policy C.9 Require development projects to provide on-site facilities such as bicycle parking, storage and showers, provide connections to existing and future planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks/multi-use paths and/or bicycle lanes, or contribute to the cost of improvements. Ensure that projects are designed and/or retrofitted to be efficiently served by buses, bike routes and pedestrians connections.

Goal D **A safe, accessible, connected and integrated pedestrian transportation network that encourages walking as a primary mode of transportation for residents, employees and visitors.**

Policy D.3 Increase pedestrian connectivity between neighborhoods and major city and regional destinations.

Policy D.4 Establish and maintain a current list of pedestrian improvement projects in the City's multimodal plan to create a continuous pedestrian network throughout the City.

Policy D.7 Require that development projects provide internal pedestrian connections and linkages to adjacent public streets, neighborhoods and community facilities. Ensure that projects are designed and/or retrofitted to be efficiently served by buses, bike routes and pedestrians connections.

Goal E **An integrated multi-modal transportation network that supports and encourages transit use, including Bus, Bus Rapid Transit (BRT), and Rail.**

Policy E.1 Promote the use of transit service as an attractive alternative for residents, employees, and visitors.

Policy E.4 Install transit priority system, where feasible, in collaboration with MST.

Policy E.5 Collaborate with MST and area jurisdictions to improve access to transit.

Policy E.8 Require development projects to enhance access to transit. Ensure that projects are designed and/or retrofitted to be efficiently served by buses, bike routes and pedestrians connections.

Goal F **A transportation network which supports the reduction of transportation related greenhouse gas emissions through the reduction of vehicle miles traveled.**

Policy F.1 Apply vehicle miles traveled (VMT) as the metric to measure transportation environmental impacts for CEQA, in accordance with SB 743.

Policy F.2	Apply VMT thresholds of significance for proposed developments, land use plans, transportation projects, and any other plans or development projects in the Move Monterey Plan (MMP).
Goal G	**Parking that efficiently utilizes existing facilities and encourages a reduction in auto travel.**
Policy G.2	Implement a demand-based pricing structure for public parking.
Policy G.3	Establish appropriate time limits for parking in commercial business districts to support local businesses and encourage use of the MST Trolley.
Policy G.4	Improve utilization of existing parking and create new parking opportunities, such as shared parking, through partnerships and cooperation in order to meet parking needs with fewer total spaces.
Policy G.8	Incorporate bicycle parking in parking lots and garages for both public and private development.
Policy G.9	Promote a "Park Once" system that encourages visitors to park once and walk, bike or use transit to travel in Monterey.
Goal H	**A transportation network supported by projects and programs that work towards zero collisions involving serious or fatal injuries.**
Policy H.2	Prioritize transportation improvements that enhance pedestrian and bicycle safety.
Policy H.3	Prioritize transportation projects at locations which have been identified as high collision intersections/segments.
Policy H.8	Collaborate with Monterey Peninsula Unified School District (MPUSD), Monterey Fire Department (MFD) and Monterey Police Department (MPD) on education and enforcement programs, including promoting "Safe Routes to School" Programs.
Goal J	**A transportation network that is more efficient through the use of demand management and intelligent transportation technology.**
Policy J.3	Encourage the use of Transportation Demand Management (TDM) strategies to address vehicle congestion and parking demand by implementing strategies such as: telecommuting, travel mode changes, reducing trips taken, re-routing trips, and re-timing when trips are taken.
Policy J.4	Establish a list of recommended programs and strategies for implementing TDM in the City's multimodal plan to address vehicle congestion, vehicle miles travelled mitigation and parking demand.

Policy J.6 Support the implementation and maintenance of a Citywide traffic signal adaptive system.

Policy J.7 Support the implementation of fiber communication to interconnect the traffic signal network to a traffic signal management system.

IMPACTS

Impact 3.6-1 Development under the Proposed Plan would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. (Significant and Unavoidable)

As described above, both quantitative and qualitative approaches are used to evaluate the Proposed Plan's impact due to generation of GHG emissions. The following analysis compares the estimated GHG emissions with quantitative thresholds, then qualitatively assesses compliance with the City of Monterey CAP and the 2022 Scoping Plan. Consistency with the 2045 MTP/SCS is evaluated under Impact 3.6-2.

As discussed in the Regulatory Setting, the City of Monterey CAP was adopted in 2016 and includes reduction targets and measures that align with State regulations and guidance that were current at the time (AB 32, the 2008 Scoping Plan, SB 375, EO S-3-05), in addition to recommendations from the U.N.'s UEA and the U.S. Mayor's Climate Protection Agreement. The targets are expressed in terms of performance-based reductions, relative to 2005 levels (which serves as a baseline in lieu of 1990 due to a lack of sufficient data), as follows: seven percent by 2012, 15 percent reduction by 2020, 25 percent reduction by 2030, and 80 percent reduction by 2050. The CAP does not reflect more recent targets for statewide carbon neutrality, translating to 85 percent reduction, by 2045 as established by EO B-55-18, AB 1279, and the 2022 Scoping Plan. As described in the Environmental Setting, the City of Monterey CAP established its 2020 reduction target based on CARB guidance (in the 2008 Scoping Plan) that 1990 levels would be approximately 15 percent below 2005 levels. Based on this estimate and data from Monterey's Draft 2020 GHG Inventory (prepared by AMBAG), Monterey exceeded the AB 32 target of achieving 1990 levels by 2020, with 17 percent reductions below the estimated 1990 levels in 2020 (shown in Table 3.6-2). As such, the environmental setting for the Proposed Plan is characterized by a preexisting trend of declining levels of GHG emissions and demonstrated progress toward the regulatory goal for 2030.

Operational Emissions

Operation of the Proposed Plan would generate direct and indirect GHG emissions. Sources of direct emissions include mobile vehicle trips, on-site natural gas combustion, landscaping activities, and refrigerants. Indirect emissions would be generated by building electricity consumption, waste and wastewater generation, water use, and solid waste. Unmitigated operational emissions for existing and 2031 buildout conditions (without quantifiable policies) are summarized in Table 3.6-3. The modeled emissions for unmitigated buildout conditions are a conservative estimate of the Proposed Plan's impact on GHGs because they do not account for Proposed Plan projects and policies such as those that would reduce emissions as a result of reduced VMT from improved bicycle, pedestrian, and transit infrastructure and demand-based parking pricing for public parking

(Circulation Policy G.2); promote infill development due to integration of affordable and below market rate housing (Housing Element Program 2-I); and reduce carbon intensity of energy usage through energy efficiency and renewable energy (Housing Element programs 5-A and 5-B). Further, the quantified emissions do not account for additional supportive measures that cannot be quantified due to lack of sufficient data and other variable dependencies (i.e., scope, level of impact) such as effectiveness of providing bike parking, traffic calming measures, and improving transit access, safety, and comfort (Circulation Element policies C.9, B.12, and E.8). Additionally, it is noted that certain measures (e.g., increase in residential and job densities, provision of transit-oriented development, provision of end-of-trip bicycle facilities, and more) were not available to quantify in CalEEMod due to the Proposed Plan's land use types, land scale, and/or locational context.

Table 3.6-3: Unmitigated Proposed Plan Operational Emissions (Annual)

		Emissions (metric tons)				
Analysis Condition	*Source*	*CO_2*	*CH_4*	*N_2O*	*R*	*CO_2e*
Existing	Area	20,200	2	1.21	40	20,640
	Energy	10,889	12	0	-	11,207
	Mobile	80,377	10	1	-	80,847
	Waste	5,979	222	5	-	13,125
	Water	2,141	214	-	-	7,491
	Refrigerants	-	-	-	102	102
	Total	**119,586**	**460**	**7**	**142**	**133,412**
Unmitigated Proposed Plan	Area	26,654	1	1.38	29	27,133
	Energy	11,439	13	0	-	11,768
	Mobile	102,847	12	1	-	103,443
	Waste	7,457	281	7	-	16,480
	Water	2,848	285	0	-	9,963
	Refrigerants				128	128
	Total	**151,245**	**592**	**9**	**157**	**168,915**

Notes:

1. R refers to refrigerants, or hydrofluorocarbons (HFCs).

Source: See Appendix H for modeling files.

As shown in Table 3.6-4, annual unmitigated operational emissions under the Proposed Plan would increase by 35,504 $MTCO_2e$ at full buildout in 2031. Quantified mitigations resulting from the Proposed Plan policies described above would modestly reduce this amount by 294 $MTCO_2e$, almost exclusively due to transportation mitigation measures that would reduce CO_2 emissions. These mitigations were estimated using conservative inputs (e.g., the minimum suggested input values, corresponding to a lower level of efficacy) for the applicable quantifiable measures available in CalEEMod.

Table 3.6-4: Mitigated Proposed Plan Operational Emissions by Emissions Source

	Emissions ($MTCO_2e$)						
Analysis Condition	*Area*	*Energy*	*Mobile*	*Waste*	*Water*	*Refrig.*	*Total*
Existing	20,640	11,207	80,847	13,125	7,491	102	133,411
Proposed Plan, Unmit.	27,133	11,768	103,443	16,480	9,963	128	168,915
Change	+6,493	+561	+22,596	+3,355	+2,472	+26	+35,504
Quantified Mitigations	-57	0	-237	0	0	0	-294
Proposed Plan, Mit.	**27,076**	**11,768**	**103,206**	**16,480**	**9,963**	**128**	**168,621**
Percent Share	*16%*	*7%*	*61%*	*10%*	*6%*	*0.1%*	*100%*

Notes:

1. Unmit. = Unmitigated; Mit. = Mitigated; Refrig. = Refrigerants.
2. Mitigated Proposed Plan conditions include quantifiable proposed policies that reduce operational emissions from Unmitigated Proposed Plan conditions.

Source: See Appendix H for modeling files.

Table 3.6-5 shows how the Proposed Plan's performance-based metrics compare with reduction targets established by the City and the State. At a minimum, the Proposed Plan would need to meet the 2030 target, which is within the planning period. Although existing operational emissions are on track to meet the target of 40 percent below 1990 levels (or 25 percent below 2005 levels), the Proposed Plan would generate additional emissions that would lower the performance metric to about 38 percent below 1990 levels in 2031 and therefore would conflict with the City's or the State's established target for 2030. Given the net increase in emissions and inability to meet the 2030 target, the Proposed Plan could have a potentially significant impact due to generation of GHGs. The following sections present the sector-by-sector analysis of GHG impacts to provide more context and identify opportunities for mitigation, consistent with OPR and CARB guidance.

Mobile-Source Emissions

GHG emissions associated with on-road mobile sources are generated from future residents and workers living and working within the Planning Area. As shown in Table 3.6-4, emissions from mobile sources by far represent the largest source (61 percent) of the Proposed Plan's emissions. The 22,596-$MTCO_2e$ increase in mobile-source emissions is primarily driven by the additional VMT expected as a result of population and employment growth at full buildout of the Proposed Plan (as presented in Chapter 2: Project Description).

Table 3.6-5: GHG Reduction Targets and Performance-Based Metrics

Year/Source	*Percent Below 1990 Levels*[1]
GHG Emissions Reduction Targets	
2030 (City of Monterey CAP, SB 32)[2]	40%
2045 (EO B-55-18)	85%
2050 (City of Monterey CAP, EO S-3-05)	80%
GHG Emissions Estimates	
2023 Existing	51%
2031 Mitigated Proposed Plan	38%

Notes:

1. 1990 levels are derived from 2005 levels reported in the City of Monterey Draft 2020 GHG Inventory prepared by AMBAG. See note below for methodology.
2. The City of Monterey CAP establishes GHG reduction targets relative to the 2005 baseline, which is estimated to be 15% above 1990 levels. The 2030 goal of 25% reduction below 2005 is therefore equivalent to 40% reduction below 1990 levels.

In its Scoping Plan, CARB acknowledges that reductions in VMT are essential to meet the State's long-term climate change goals, in both absolute and per capita terms. As noted above, the Proposed Plan includes a suite of policies that would prioritize alternative modes of transportation, such as transit, bicycling, and walking, to reduce per capita VMT. Based on transportation modeling results provided by the Proposed Plan's transportation engineers, VMT (in absolute terms) is expected to increase compared to existing (2023) conditions, with or without the Proposed Plan. Implementation of the Proposed Plan would result in a higher total VMT at buildout compared to future conditions without the Proposed Plan, primarily due to the greater amount of population (residential) growth, which would contribute to a higher number of vehicle trips. In addition, transportation modeling results show that the average home-based trip length is expected to increase for the Planning Area overall as a result of the Proposed Plan. Both of these factors (vehicle trips and trip length) would contribute to higher absolute VMT. It is noted, however, that transportation modeling was conducted using the most recent (2018) version of AMBAG's Regional Travel Demand Model, which only accounts for transportation projects from the MTP adopted by AMBAG as of June 2018 and other related built environment variables that can be programmed into the model, such as proximity to transit and mixed-use designs which result in quantifiable reductions in daily trips and VMT.

Proposed Plan policies that support VMT reductions through factors that the model is not sensitive to (such as connectivity within neighborhoods, presence of bicycle and pedestrian facilities, limited parking supply, and transportation demand management [TDM] measures) are therefore not reflected in the VMT estimates. As a result, population growth under the Proposed Plan would contribute to an increase in VMT per capita, as shown in Table 3.6-6, as well as an increase in VMT per service population. The Proposed Plan Housing Element is designed to accommodate the City's assessed share of projected regional growth, and as such, an increase in absolute VMT is expected; however, the proposed land use strategy is designed to help reduce the impact of this growth by reducing VMT per capita and per service population by creating a better jobs-housing balance. Proposed

policies would help achieve this by encouraging higher-density and mixed-use developments where appropriate, connectivity between neighborhoods and to transit, and walkable design that complements the existing natural and built environment to reduce VMT (Land Use policies A.1, A.2, and A.4). The Proposed Plan further provides the policy framework to guide future development toward land uses that support walking, biking, and transit ridership (Land Use Element policies B.1 and B.5 and Circulation Element policies A.1, A.2, and A.3). In fact, residential growth as a result of the proposed land use strategy would result in a reduction in emissions per capita, from 5.0 in 2023 to 4.6 in 2031 under the Proposed Plan.

Table 3.6-6: Per Capita and Per Service Population Metrics

Measurement	*Existing (2023)*	*Proposed Plan (2031)*
Population	26,845	36,949
Service Population	49,091	61,186
VMT (daily)	**157,209**	**247,640**
per Capita	5.9	6.7
per Service Population	3.2	4.0
GHG Emissions ($MTCO_2e$ per year)	**133,411**	**168,621**
per Capita	5.0	4.6
per Service Population	2.7	2.8

Notes:

1. Service population is the sum of residents plus jobs (employees). Population and jobs are consistent with Chapter 2: Project Description.
2. VMT shown is the average daily VMT provided by Kimley Horn Associates, and per capita and per service population metrics are calculated using the values in the table, consistent with the Project Description.

In addition to the proposed land use strategy, the Circulation Element of the Proposed Plan includes multiple policies to reduce the demand for vehicle travel within and through the Planning Area, as well as work with local, regional, and State agencies to implement regional transportation improvements that encourage the use of non-automobile travel modes. The Proposed Plan promotes active transportation by making bicycle and pedestrian travel safer and more convenient (Circulation Element policies C.2, C.3, C.6, C.8 D.3, D.4, D.7, and H.8), and it provides multimodal and transit alternatives to single-occupant vehicles by supporting transit facilities and services (Circulation Element policies E.1, E.4, 3.5, and E.8). To discourage auto travel, the Proposed Plan includes parking strategies (Circulation Element policies G.2, G.8, and G.9) and TDM measures (Circulation Element policies J.3 and J.4). In addition, the Circulation Element explicitly includes proposed policies that seek to reduce transportation-related GHG emissions (i.e., VMT) by adopting VMT metrics for CEQA transportation impacts per SB 743, establishing thresholds of significance for future development projects and plans, and providing guidance for ensuring future development under the Proposed Plan would be CEQA-compliant and support the VMT-reducing proposed policies described above (Circulation Element policies F.1, F.2, and F.3).

If adopted, the City shall implement all policies identified in the Housing, Land Use, and Circulation Elements of the Proposed Plan to reduce the demand for automobile travel within and through the

Planning Area, as well as work with local and regional agencies to implement regional transportation improvements.

Although the implementation of Proposed Plan strategies can be expected to reduce the VMT per capita (and per service population) generated by typical uses in the Planning Area and reduce the magnitude of the impact, their effectiveness cannot be accurately estimated for the expected developments in the Planning Area because the detailed characteristics of these future development and/or the specific strategies implemented by these future developments resulting from implementation of the Proposed Plan are unknown at this time. As shown in Table 3.6-5, an additional two percent reduction below 1990 levels is required for the Proposed Plan to achieve both the City's and the State's near- and long-term climate goals for 2030 and beyond.

Area-Source Emissions

As shown in Table 3.6-4, the Proposed Plan would generate about 6,493 $MTCO_2e$ more than existing conditions due to area sources, which include gasoline-powered landscaping equipment (e.g., trimmers, mowers) and natural gas combustion in residential woodstoves/fireplaces. Although proposed policies encourage sustainable design and green building standards (Housing Element Programs 5-B and 5-C), there are no measures, including in the CAP or Scoping Plan, that specifically address use of landscaping equipment or fireplaces. The Scoping Plan generally discusses landscaping as a component of urban forestry efforts that would help reduce carbon at the local level, and these areas would be subject to State requirements for water-efficient landscaping practices. As transportation sector emissions are reduced toward the 2030 goal, CARB expects that residential woodstoves/fireplaces will be one of a few remaining sources of black carbon emissions. MBARD does not prohibit residential woodstoves/fireplaces, although outdoor open fires are regulated.

OPR guidance recommends that land use development projects strive to avoid fossil fuels.[39] The extent to which the Proposed Plan would result in new fossil-fuel-powered landscaping equipment or residential woodstoves/fireplaces is unknown. Consequently, there is a possibility that new development could result in fossil fuel use and associated GHG emissions throughout implementation of the Proposed Plan, thereby potentially conflicting with the City's and State's 2030 reduction goals, OPR guidance, and the State's long-term emission reduction trajectory towards carbon neutrality by 2045.

Energy Emissions

As shown in Table 3.6-4, the Proposed Plan would generate about 561 $MTCO_2e$ more than existing conditions due to energy consumption. GHG emissions from energy sources include combustion of natural gas for cooking and heating, as well as electricity provided by 3CE or PG&E. The Proposed Plan outlines strategies to reduce energy demand and fossil fuel use, while increasing energy efficiency and renewable energy generation. These strategies include transitioning to cleaner fuels, increasing efficiency in existing buildings, and replacing gas appliances with electric in the

39 Governor's Office of Planning and Research. 2018. Discussion Draft CEQA and Climate Change Advisory. December. Available: http://opr.ca.gov/docs/20181228-Discussion_Draft_Climate_Change_Adivsory.pdf. Accessed: August 16, 2021.

residential and commercial sectors (Housing Element Programs 5-A, 5-B, and 5-C) and align with the key project features that reduce GHGs in the 2022 Scoping Plan (i.e., local actions that support the State's climate goals for 2030 and beyond). Although proposed programs/policies encourage and incentivize use of renewable energy, energy-efficient and sustainable design, and CALGreen standards, it is unknown whether future development projects within the Planning Area would ultimately be designed with natural gas appliances. As such, it was conservatively assumed all development used natural gas for heating and cooking, which is reflected in the emissions included in Table 3.6-3. This conservative estimate also assumes that the electricity provider would be PG&E, which has a significantly higher carbon intensity factor than 3CE (more than 200 pounds of CO_2 per MWh compared to nearly zero, respectively). Under these quantified assumptions, the continued consumption of fossil fuels by operation of the Proposed Plan in the energy sector prior to and beyond 2030 would generate GHG emissions from fossil-fueled energy sources and could conflict with the City's and State's climate goals.

Waste Emissions

As shown in Table 3.6-4, the Proposed Plan would generate about 3,355 $MTCO_2e$ more than existing conditions due to generation of solid waste. Solid waste may be disposed in landfills or diverted for recycling, composting, or reuse. GHG emissions from landfills are generated through anaerobic breakdown of material. The Scoping Plan aims to reduce waste emissions by diverting waste away from landfills through waste reduction, re-use, composting, and material recovery, as mandated by AB 341 recycling and SB 1383/AB 1826 organic waste reduction requirements. The Proposed Plan does not include policies that specifically address waste; however, future development under the Proposed Plan would be required to comply with Monterey City Code (Chapter 14) requirements for solid waste, recycling, and composting. Compliance with these regulations and existing City efforts to achieve zero waste in the community would support the Short-Lived Climate Pollutants (SLCP) strategy and landfill waste reduction goals, but it is unknown whether these efforts would be sufficient to offset the increase in waste emissions generated by the Proposed Plan to a less-than-significant level.

Water and Wastewater Emissions

As shown in Table 3.6-4, water is the smallest category of emissions (other than refrigerants, which are a near-negligible source) in Monterey, with about 2,472 additional $MTCO_2e$ generated by the Proposed Plan compared to existing conditions. Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute water and wastewater. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of water. Additional wastewater emissions include CH_4 and N_2O, although these are generated by wastewater treatment at individual wastewater treatment plants (WWTP). The Proposed Plan does not include construction or expansion of new WWTPs. New sources of water supply are anticipated to become available during the planning period (but are not within the scope of the Proposed Plan); however, development of the sites in the Housing Element would require expanded water supply, including but not limited to the Cal-Am Desalination Plant and Phase 2 Aquifer Storage and Recovery. . GHG emissions generated during the delivery and treatment of water to service the new development would add to current emissions levels, though this increase would be moderated by water conservation methods in the new development projects, as described in Housing Element Program 2-K.

The Scoping Plan outlines objectives and goals to reduce GHGs in the water sector through water conservation and efficiency strategies, including use of drought-tolerant landscaping, stormwater capture, and water recycling. Regulations have further targeted water supply and water conservation (e.g., SB X7-7) through building and landscaping efficiency (e.g., Title 24). The Proposed Plan would support sustainable building and landscape design, as well as sustainable water use and irrigation practices through Housing Element 5-B. However, given the need for additional water supply to serve new housing and the overall net increase in estimated emissions, the Proposed Plan may conflict with the City's and State's climate goals due to water consumption and wastewater generation.

Stationary-Source Emissions

Stationary sources associated with future development projects would be subject to MBARD permitting requirements and project-level thresholds. Stationary-source GHG impacts for each individual development project, or a combination of these projects, would require the City to speculate regarding such potential future project-level environmental impacts. Because the GHG emissions related to stationary sources at buildout of the Proposed Plan is currently unknown, the Proposed Plan could exceed project-level thresholds and conflict with the Scoping Plan.

Construction

As described in the Methodology and Assumptions section above, construction-generated emissions cannot be quantified at this time due to a lack of sufficient, project-specific data; however, it is expected that multiple development projects would occur throughout the Proposed Plan's planning period.

Plans are encouraged to incorporate feasible BMPs to reduce GHGs generated by construction activities and are evaluated based on their potential to conflict with statewide emission reduction goals. Housing Element Program 5-C encourages environmentally sensitive construction practices, including requiring large project applicants to submit a construction waste management plan for City approval and restricting use of HFCs in mechanical equipment and building materials. Program 5-C also promotes use of construction strategies that reduce resource and environmental impacts as well as use of locally or regionally available materials – both of which are standard construction BMPs for reducing construction-related GHG emissions. Construction and demolition activities are also regulated under CALGreen, which requires all permitted residential and non-residential construction, demolition, and additions/alterations projects to recycle or salvage a minimum 65 percent of nonhazardous construction materials from the project, as supported by Housing Element Program 5-B. Neither MBARD nor CARB's 2022 Scoping Plan offer specific recommendations regarding reducing GHGs from construction, and the Proposed Plan includes measures that would mitigate emissions as feasible. Nevertheless, it is uncertain whether these measures would be sufficient to reduce this impact to less-than-significant levels.

Conclusion

GHG emissions from operation of the Proposed Plan would result in a net increase compared to existing conditions, primarily attributed to mobile sources. Although emissions would decrease on a per capita basis, the increase in overall emissions would translate to a decrease in performance-

based metrics such that it would conflict with both the City's and the State's target of 40 percent below 1990 levels by 2030—a target year that is within the Proposed Plan's planning period—as established in the City of Monterey CAP and CARB's 2022 Scoping Plan. Proposed policies that can be quantified would contribute a reduction of less than 300 $MTCO_2e$ (under a conservative estimate) and are not sufficient to offset the estimated increase in operational emissions.

Despite this net increase, the Proposed Plan's policies represent a suite of land use and building strategies that would reduce emissions from area sources, building energy consumption, water consumption, and waste generation. However, there is no guarantee that all voluntary sustainability features and practices will be incorporated into the designs and construction of all future developments to reach the maximum reductions possible. This is a potentially significant impact, particularly as new development will coincide with water service expansion and would continue to use natural gas for building heating and cooking, appliances, and woodstoves/fireplaces, and gasoline or other fossil fuels in landscaping equipment prior to and beyond 2030. The magnitude of water consumption, waste generation, and natural gas and gasoline use for energy and area sources within the Planning Area cannot be known at this time, and thus there is a possibility that such use of fossil fuels could be considered substantial.

Lastly, mobile sources make up a large majority of the Proposed Plan's overall emissions as well as the increase in emissions relative to existing conditions. Although the City's direct influence over these emissions is limited, the Proposed Plan incorporates local land use strategies that promote VMT reduction, resulting in a decrease in VMT per capita. However, quantified transportation measures are insufficient to offset increased mobile-source emissions, and it is uncertain whether additional voluntary measures that reduce VMT and electrify transportation would be adequate to reduce the impact to a less-than-significant level. As a result, the Proposed Plan's mobile-source GHG emissions would conflict the City's and State's climate change planning goals.

Overall, the Proposed Plan includes policies that would reduce GHG impacts, in line with CARB and OPR guidance, but the magnitude of effect of such measures is unknown and therefore cannot be assumed to reduce the increase in operational emissions to a less-than-significant level. Therefore, the Proposed Plan would have a significant impact, and the following mitigation measures would be required.

Mitigation Measures

MM-GHG-1 **Update Climate Action Plan.** Within 18 months of adoption of the Proposed Plan, the City shall update the City of Monterey Climate Action Plan to address changes in State GHG reduction goals, including SB 32, EO B-55-18, AB 1279, and the CARB 2022 Scoping Plan, and meet the requirements for a Qualified GHG Reduction Strategy under CEQA. The update shall incorporate specific, measurable GHG reduction strategies that address each emissions source sector, are prioritized by timeframe (i.e., 2030 for near term and 2045 for long term) and are assigned to a lead agency/organization for implementation. The CAP Update shall incorporate the most recent communitywide GHG Inventory and strategies that would achieve at least an additional two percent reduction by 2030 to ensure citywide target of 40 percent reduction. The CAP shall target top-contributing emissions sectors (especially the transportation sector, which represents more than 60 percent of

operational emissions), such as by adapting CARB's recommended key project attributes for VMT reduction into citywide programs. GHG reduction strategies to be considered shall include: prohibiting woodburning or natural gas fireplaces in new construction, making new construction solar-ready, and requiring new multifamily construction to exceed Title 24 electric vehicle charging station requirements by 15 percent. The CAP shall also incorporate a CEQA checklist to streamline project approval and encourage use of CARB's recommended key project attributes that reduce GHGs (as included in the CARB 2022 Scoping Plan).

MM-GHG-2 **Construction Best Management Practices to Minimize GHGs.** All applicants within the Planning Area shall require their contractors, as a condition of contract, to reduce construction-related GHG emissions by implementing recommended best management practices, including (but not limited to) the following measures (based on the Bay Area Air Quality Management District's 2022 CEQA Air Quality Guidelines):

- Ensure alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment make up at least 15 percent of the fleet.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than two minutes (A five-minute limit is required by the state airborne toxics control measure [CCR, Title 13, Sections 2449(d)(3) and 2485]). Provide clear signage that posts this requirement for workers at the entrances to the site and develop an enforceable mechanism to monitor idling time to ensure compliance with this measure.
- Prohibit off-road diesel-powered equipment from being in the "on" position for more than 10 hours per day.
- Require all construction equipment is maintained and properly tuned in accordance with manufacturer's specifications. Equipment should be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Where grid power is available, prohibit portable diesel engines and provide electrical hook ups for electric construction tools, such as saws, drills and compressors, and using electric tools whenever feasible.
- Recycle or salvage nonhazardous construction and demolition debris, with a goal of recycling at least 15 percent more by weight than the diversion requirement in Title 24.
- Use locally sourced (within 100 miles of the Planning Area) or recycled materials for construction materials (goal of at least 10 percent based on costs for building materials and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products used should be certified through a sustainable forestry program.

- Develop a plan to efficiently use water for adequate dust control since substantial amounts of energy can be consumed during the pumping of water.

Although implementation of the mitigation measures above would help significantly reduce GHG emissions generated during construction and operation of the Proposed Plan and may achieve the citywide GHG reduction target (potentially revised in an updated CAP), without further State action, it is unlikely that local efforts alone would be sufficient to meet carbon neutrality by 2045 and thereby reduce the impact to a less-than-significant level. Moreover, CARB's 2022 Scoping Plan indicates that carbon sequestration from natural and working lands will not be enough to attain carbon neutrality, and doing so will require research, development, and implementation of additional measures. CARB maintains authority to adopt regulations as necessary to meet future GHG targets under SB 32, EO S-3-05, EO B-55-18, and AB 1279, but the specific path to carbon neutrality is unknown and dependent on development of technologies and programs that are not currently known or available.; therefore, this impact is significant and unavoidable.

Significance After Mitigation: Significant and Unavoidable.

Impact 3.6-2 Development under the Proposed Plan would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. (Significant and Unavoidable)

City of Monterey CAP

As discussed in Impact 3.6-1, the City's CAP establishes four GHG reduction targets (for years 2012, 2020, 2030, and 2050), one of which occurs during the Proposed Plan's planning period. Based on the quantified estimate of operational emissions (Table 3.6-3), the Proposed Plan would generate GHGs at a level that does not meet the 2030 target and would therefore conflict with the City's CAP.

CARB 2022 Scoping Plan

As described in the Regulatory Setting, the CARB Scoping Plan is a framework for achieving AB 32 and subsequent regulations, including SB 32, EO S-3-05, and EO B-55-18. While State programs including RPS, LCFS, Advanced Clean Cars, Cap-and-Trade, and others will help achieve the State's near- and long-term climate change goals, local actions are more limited in scope and influence. As such, local jurisdictions are encouraged to adopt CAPs and use land use control to support electrifying transportation, reducing VMT, and decarbonizing buildings. The CARB 2022 Scoping Plan suggests that a project including all key project attributes in these categories would have a less-than-significant impact. Table 3.6-7 below assesses whether the Proposed Plan is consistent with these project attributes.

Table 3.6-7: Consistency with CARB 2022 Scoping Plan Key Residential and Mixed-Use Project Attributes to Reduce GHGs

Key Project Attribute	*Proposed Plan Programs/Policies*	*Consistent?*
Transportation Electrification		
Provides EV charging infrastructure that, at minimum, meets the most ambitious voluntary standard in the California Green Building Standards Code (CALGreen) at the time of project approval.	CALGreen is adopted into the Monterey City Code, and the Proposed Plan further reinforces these standards by incentivizing residential and mixed-use projects to exceed CALGreen requirements (Housing Element Program 5-B).	Yes
Reduction of Vehicle Miles Traveled (VMT)		
Is located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer).	Housing Element Policy 1.2 promotes infill development with access to employment, retail, transit, recreation, and other services. The Land Use Element further supports compact, sustainable land use and development patterns within the Planning Area (Land Use Element Policy A.4).	Yes
Does not result in the loss or conversion of natural and working lands.	Housing Element Policy 1.3 and Program 1-A (the Housing Sites Inventory) include development in southeast portions of the Planning Area that are designated as Grazing Land (as mapped in discussed in Section 3.2: Agricultural Resources).	No
Consists of transit-supportive densities (minimum of 20 residential dwelling units per acre), or Is in proximity to existing transit stops (within a half mile), or Satisfies more detailed and stringent criteria specified in the region's SCS.	The existing Medium Density Residential, Commercial, and Commercial Mixed Use of the Land Use Element allow densities greater than 20 dwelling units per acre, and the new Multifamily Residential Overlay increases density to 50 dwelling units per acre. Infill development is encouraged (see above), and most (but not all) Housing Element Sites are within a half mile of transit. Consistency with the SCS is discussed below.	Yes
Reduces parking requirements by: • Eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet); or • Providing residential parking supply at a ratio of less than one parking space per dwelling unit; or	Housing Program 2-E would reduce parking requirements to one space per unit for all units within a half-mile of transit and would revise parking regulations, as necessary, to remove constraints to affordable housing. However, it is uncertain whether future revisions would eliminate parking requirements or reduce ratios to less than one space per unit.	No

Key Project Attribute	*Proposed Plan Programs/Policies*	*Consistent?*
• For multifamily residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit.		
At least 20 percent of units included are affordable to lower-income residents.	Housing Element Program 2-I would establish an Inclusionary Zoning requirement for 20 percent of units in any project with more than six units to be permanently affordable to moderate- and low-income residents. Housing Element Program 1-A would ensure that the City meets RHNA obligations, including a minimum of 53 percent of lower-income units.	Yes
Results in no net loss of existing affordable units.	Housing Element Program 2-I includes development of at least 1,946 lower-income units, and Housing Element Policy 4.1 and Program 4-C would help lower-income residents stay in their homes.	Yes
Building Decarbonization		
Uses all-electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking.	The Proposed Plan does not include specific development projects, other than pipeline projects. Future development would comply with Housing Element Policies 5.1, 5.2, and 5.3 and Programs 5-A and 5-B that encourage energy efficiency, including use of renewable energy from 3CE, and green building practices beyond CALGreen requirements. However, such voluntary measures cannot be guaranteed at a project level.	No

Source: CARB 2022 Scoping Plan, Appendix D: Local Actions [Table 3], 2022.

As demonstrated above, the Proposed Plan supports many of the key project attributes but would conflict with the following three: Prevent loss/conversion of natural and working lands; eliminate parking requirements, reduce the ratio to less than one space per unit, or unbundle parking from housing costs; and use all-electric appliances with no natural gas consumption.

2045 Metropolitan Transportation Plan/Sustainable Communities Strategy

The 2045 MTP/SCS is the AMBAG region's long-range transportation plan for coordinating development between regional transportation planning agencies, transit providers, local jurisdictions, and others interested in or responsible for transportation planning and programming. The 2045 MTP/SCS complies with the requirements of SB 375, and the MTP/SCS is designed to meet the GHG reduction targets set by CARB for the Monterey Bay region, including a six percent per capita reduction (relative to 2005 levels) by 2035 through land use and transportation planning. Specifically, strategies focus housing and employment growth in urbanized areas, protect sensitive habitat and

open space, and invest in a transportation system with more effective and diverse transportation options. There are 68 specific strategies in the 2045 MTP/SCS that AMBAG recommends local jurisdictions to consider to successfully implement the SCS. Table 3.6-8 assesses whether the Proposed Plan is consistent with applicable strategies.

Table 3.6-8: Consistency with AMBAG 2045 MTP/SCS Implementation Strategies

Strategy	*Proposed Plan Programs/Policies*	*Consistent?*
Economic Development		
Encourage infill housing by working with local jurisdictions to update municipal policies, such as reduced fees tax credits or exemptions, graduated density bonuses, and reduced parking requirements for redevelopment, affordable housing, or mixed use in Opportunity Areas.	The Proposed Plan includes infill housing (Housing Element Policy 1.2), updated density bonuses (Housing Element Program 2-F), reduced parking requirements (Housing Element Program 2-E and Circulation Element Policy G.4), affordable housing (Housing Element Programs 1-A and 2-I), and mixed-use (Land Use Element Policies A.1, A.4, and B.1).	Yes
Land Use & Housing		
Prioritize corridor investment projects along high quality transit corridors that serve multiple modes of travel in the development of the Metropolitan Transportation Plan and Regional Transportation Plans. Supportive investments include enhancements for high quality transit, technology development, bicycle and pedestrian improvements and safer intersections.	The Circulation Element supports regional efforts for high-quality transit (Circulation Element Policies E.4, E.5, and E.8), technology development (Circulation Element Policies J.6 and J.7), bicycle and pedestrian improvements (Circulation Element Policies C.6, C.9, D.4, and D.7), and safer intersections (Circulation Element Policies H.2 and H.3).	Yes
Continue to work with local jurisdictions on long range land use planning by refining the land use typologies for the region and better defining opportunity areas.	Land Use Element Policy B.1 and Housing Element Programs 1-B and 1-C call for specific plan updates and land use strategies focused on mixed-use neighborhoods, commercial districts, and complete communities within identified opportunity areas.	Yes
Prioritize projects for funding that are consistent with the Sustainable Communities Strategy goals and/or that have complete streets elements per the adopted Sustainable Communities Strategy and Regional Complete Streets Guidelines in order to encourage use if active transportation options for short trips and improve quality of life.	Circulation Element Policy B.1 would create and maintain complete streets, supported by active transportation options and convenient access envisioned by Policies A.1, A.2, and A.3.	Yes
Investment in safe bicycle and pedestrian routes that improve connectivity and access to common destinations, such as connections	Circulation Element Policies C.3 and D.2 improve bicycle and pedestrian safety and mobility, supported by enhanced	Yes

Strategy	*Proposed Plan Programs/Policies*	*Consistent?*
between residential areas and schools, employment centers, neighborhood shopping, and transit stops and stations, supporting efforts throughout the region to improve connectivity and realize public health benefits from these investments.	multimodal access to meet community needs (Circulation Element Policies A.1, C.2, D.3, and Land Use Element Policy B.5).	
Environment		
Consider climate change in all functions of government and across public and private sectors.	As discussed under Impact 3.6-1, the Proposed Plan seeks to increase energy efficiency, support transition to renewable energy, and reduce VMT, water consumption, and waste generation. The Proposed Plan supports regional coordination across the public sector and encourages and/or incentivizes cooperation from the private sector.	Yes
Maximize the use of natural lands, such as wetlands at the coast and agricultural and conservation lands, to help absorb the impacts of climate change. Wetlands can be natural buffers against rising seas and destructive storm surges. Agricultural and conservation lands, often in more rural communities, can serve as natural fire breaks against increased wildfires. Protected natural lands can also help absorb greenhouse gas emissions while providing many other societal benefits.	The Highway 68 Area Plan Update (Housing Element Program 1-I) would involve development on a portion of a 50-acre vacant parcel of land, previously identified for development in the Highway 68 Area Plan while preserving much of the rest of the Highway 68 Area in its current undeveloped state. Open space conservation and tree preservation policies in the Highway 68 Area Plan, General Plan, and City Code would continue to apply, minimizing the loss of natural lands. Development of the 50-acre MPUSD parcel may involve the loss of land classified by the FMMP as Grazing Land (see Section 3.2: Agricultural Resources), however, the parcel is not currently in active agricultural use nor is it zoned for agricultural uses. All development on the parcel would be within the City limit on land previously designated for development and would locate new housing in proximity to the Ryan Ranch business park and other employment uses on Garden Road, potentially reducing commute times and distances for people employed in those locations. As such, Program 1-I would not conflict with the 2045 MTP/SCS infill development goals.	Yes

Strategy	*Proposed Plan Programs/Policies*	*Consistent?*
Transportation		
Improve safety and security at crosswalks, transit stops and along main access routes to transit, including rural areas, with higher priority for low income, minority and high crime areas.	Circulation Element Policies H.2 and H.3 would prioritize of high-collision intersections and segments to enhance pedestrian and bicycle safety. These improvements would be coordinated in the City's multimodal transportation plan.	Yes
Collaborate with jurisdictions and employers to provide local community shuttles or circulators that serve transit-oriented development, high quality transit stops and neighborhood commercial centers providing an incentive for residents and employees to make trips on transit.	Circulation Element Policies A.3, E.1, G.3, and G.9 support transit-oriented developments served by high-quality transit and alternative modes of transportation to serve the needs of residents, employees, and visitors.	Yes
Encourage the use of traffic operational strategies and intelligent transportation systems to improve traffic flow that will provide lower-cost alternatives to road expansion.	Circulation Element Policy B.12 implements the City's Traffic Calming Program, and Circulation Element Policies J.3, J.4, J.6, and J.7 would implement technology and TDM strategies to improve traffic flow.	Yes
Coordinate with Central Coast Community Energy and Monterey Bay Air Resources District to provide programs that install charging stations for workplaces, multi-unit dwelling communities, and medium- and heavy-duty vehicles throughout the region.	Housing Element Policy 5.1 and Housing Element Programs 5-A and 5-B support 3CE efforts to conserve energy and transition to renewable energy, as required and encouraged by CALGreen and the Energy Code.	Yes
Monitor the region's EV efforts, including the number of charging stations, greenhouse gas reductions, energy use, air quality and pollution impacts, and EV-ready cities.	As discussed in Section 3.3: Air Quality and under Impacts 3.6-1, 3.6-3, and 3.6-4, the Proposed Plan supports renewable energy, energy efficiency, and GHG reduction strategies. EV requirements are part of CALGreen, which are included in Housing Element Program 5-B.	Yes

Source: AMBAG 2045 MTP/SCS [Table 4-1], 2022.

As evaluated in Table 3.6-8, the Proposed Plan would be consistent with the applicable strategies in the 2045 MTP/SCS.

Consistency with Other State Regulations

As discussed above, systemic changes will be required at the state level to achieve California's future GHG reduction goals. Regulations, such as future amendments and updates to the State's low-carbon and renewable energy, energy efficiency, water conservation, and waste reduction regulations will be necessary to attain the magnitude of reductions required for the State's goals.

New development under the Proposed Plan would be required to comply with these regulations, and vehicle trips and energy consumption would be less carbon-intensive due to statewide compliance with future LCFS amendments and increasingly stringent RPS. Thus, for the foreseeable future, the Proposed Plan would not conflict with any other applicable State-level regulations pertaining to GHGs.

Conclusion

Overall, the Proposed Plan would be consistent with policies and plans that encourage energy conservation, energy efficiency, and sustainability, as it would concentrate new development within the City limit on land previously identified for development and as it would improve the jobs-housing ratio and promote walkable mixed-use neighborhoods, reducing per capita VMT and associated vehicle trips. However, implementation of the Proposed Plan could result in GHG emissions that exceed targets established in the City and State plans. While accommodating the City's assessed share of the regional housing need for the 2023-31 planning period is a legal requirement under State law, these exceedances nevertheless represent a conflict with plans, policies, and regulation adopted for the purpose of reducing GHG emissions.

Mitigation Measures

Implementation of MM-GHG-1 would require an update the City's CAP to incorporate additional measures to achieve at least an additional 2 percent reduction in GHG emissions with specific strategies targeted toward transportation-related emissions, which account for more than 60 percent of all GHG emission in the Planning Area. Implementation of MM-GHG-2 would require the use of best management practices to reduce GHG emissions from construction activities. Implementation of these measures would further reduce GHG emissions resulting from Project implementation; however, as the CAP Update has not yet been adopted it cannot be determined with certainty that the measures necessary to meet reduction targets will be implemented. Therefore, even after implementation of all feasible mitigation, impacts related to conflicts with plans, policies, and regulations adopted for the purpose of reducing GHG emissions would remain significant and unavoidable.

Significance after Mitigation: Significant and Unavoidable.

Impact 3.6-3 Implementation of the Proposed Plan would not cause wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. (Less than Significant)

Development facilitated by the Proposed Plan would involve the use of energy during construction and operation. Energy use during construction would be primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators for lighting. Temporary grid power may also be provided to construction trailers or electric construction equipment. Long-term operation of development projects would require permanent grid connections for electricity and natural gas service to power internal and exterior building lighting, and heating and cooling systems. In addition, the increase in vehicle trips and operation of the regional transportation system associated with potential development could increase fuel consumption.

Construction

Construction and maintenance of future land use development envisioned under the Proposed Plan would result in short-term consumption of energy resulting from the use of construction equipment and processes. CALGreen includes specific requirements related to recycling, construction materials, and energy efficiency standards that would apply to construction of future development envisioned by the Proposed Plan and would minimize wasteful, inefficient, and unnecessary energy consumption. Proposed Housing Element Programs 5-B and 5-C would ensure that construction and operation of projects facilitated by the Proposed Plan would be required to comply with relevant provisions of CALGreen and the Energy Code (as adopted into the Monterey City Code), as well as the City's Water Efficient Landscaping Ordinance, which would further avoid wasteful, inefficient, and unnecessary energy consumption.

Operation

Operation of the development facilitated by the Proposed Plan would consume natural gas and electricity for building heating and power, lighting, and water conveyance, among other operational requirements. Additionally, the increase in VMT associated with potential development and daily operation of the regional transportation system would use energy in the form of fuel consumed by propulsion of passenger vehicles, including automobiles, vans and trucks, and transit vehicles, including buses and trains.

Energy consumption under the Proposed Plan is based on the net increase in energy consumption. Electricity and natural gas would be consumed by residences and commercial buildings. Gasoline and diesel would be consumed by vehicles traveling to and from the Proposed Plan's land uses and are based on an annual VMT of 85,965,780. The quantified change in energy consumption associated with the Proposed Plan (future Proposed Plan buildout conditions minus existing conditions) is shown in Table 3.6-9.

As shown in Table 3.6-9, operation of development associated with implementation of the Proposed Plan would increase the consumption of electricity, natural gas, and transportation fuels. Electricity consumption would increase by 333,678 million BTU per year in 2031, while natural gas consumption would increase by 248,888 million BTU per year. Direct transportation energy demand would also increase by 307,445 million BTU per year through the consumption of gasoline and diesel fueled vehicles. Total energy consumption in the Planning Area would increase by 889,612 million BTU per year in 2031, which translates to 112.1 million BTU per capita and 67.7 million BTU per service population. Given that the Proposed Plan is a programmatic land use plan that includes 5,085,575 square feet of non-residential development, including industrial and healthcare uses that are substantially more energy intensive than residential uses, the per service population metric is most applicable.

Multiple proposed programs and policies would help minimize the occurrence of inefficient, wasteful, and unnecessary energy consumption during operation of development facilitated by the Proposed Plan. Housing Element Program 2-K supports water efficiency and conservation, and Housing Element Policy 5.3 and Housing Element Program 5-C promote waste reduction, which would reduce energy consumed via water delivery and waste management. Multiple policies in the Circulation Element would improve the availability of alternative transportation modes by

coordinating with regional transit providers (policies C.8, E.4, and E.5), improving pedestrian and bicycle infrastructure (policies C.3, C.6, C.9, D.4, and D.7), and promoting TDM measures (policies J.3 and J.4), therefore helping to reduce congestion and overall demand for transportation fuels. Additionally, Housing Element Program 5-B would incentivize new residential and mixed-use developments to exceed minimum requirements of CALGreen, such as provision of electric vehicle charging stations. The Proposed Plan also identifies infill development and creative reuse and redevelopment of existing sites as the primary means for accommodating future growth. By placing services and amenities close to where people live and work, the land use scenario envisioned by the Proposed Plan would minimize the need to drive and reduce per capita energy consumption and GHGs. Although development under the Proposed Plan would increase total energy consumption in the Planning Area, this estimate was quantified under the assumption that electricity would be provided by PG&E. Housing Element Policy 5.1 and Program 5-A would increase use of 3CE and thereby significantly reduce reliance on fossil fuel resources. Implementation of the Proposed Plan policies listed above would result in indirect energy conservation—such as the promotion of alternative transportation, water conservation, and waste reduction—as well as promote greater energy efficiency in communitywide operations and development. Furthermore, the Proposed Plan contains a land-use strategy that actively promotes infill mixed-use and transit-oriented development, which would result greater energy efficiency overall for Planning Area residents, businesses, and operations. Therefore, while total energy consumption in the Planning Area is conservatively estimated to increase with the operation of development under the Proposed Plan and pipeline projects, the Proposed Plan would not result in wasteful, inefficient, or unnecessary consumption of energy. Therefore, this impact would be less than significant.

Mitigation Measures

None required.

Table 3.6-9: Energy Consumption from Proposed Plan Development

Energy Source	*Annual Consumption*[1]	*Million BTU per Year*
Electricity (GWh)		
Existing	375.14	1,280,023
Proposed Plan (Mitigated)	472.93	1,613,701
Change	+97.79	+333,678
Natural Gas (Mcf)		
Existing	838.87	860,680
Proposed Plan (Mitigated)	1,085.33	1,109,168
Change	+242.19	+248,488
Transportation Fuels (gallons)[2]		
Existing	8,563,268	1,111,682
Proposed Plan (Mitigated)	10,931,515	1,419,127
Change	+2,368,247	+307,445
Total Change in Energy Consumption	**-**	**889,612**
Per Capita Energy Consumption[3]	-	112.1

Table 3.6-9: Energy Consumption from Proposed Plan Development

Energy Source	*Annual Consumption*[1]	*Million BTU per Year*
Per Service Population Energy Consumption[4]	-	67.7

GWh = gigawatt-hour; Mcf = million cubic feet

Notes:

1. Provided in GWh, Mcf, and gallons, respectively.

2. The gasoline and diesel values represent the Proposed Plan's fuel consumption.

3. Based on a Planning Area buildout population of 36,949 residents.

4. Based on a Planning Area buildout population of 36,949 residents and 24,237 employees.

Source: Dyett & Bhatia, 2023.

Impact 3.6-4 Implementation of the Proposed Plan would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. (Less than Significant)

State and local renewable energy and energy efficiency plans that apply to the Proposed Plan are discussed above under Regulatory Setting. State plans include the Advanced Clean Cars regulations, LCFS, Energy Code standards, SB 350, and SB 100. Each of these plans contain required standards related to energy efficiency and renewable energy development. Local plans that address energy efficiency and are designed to achieve the State's RPS mandates include PG&E's and 3CE's 2022 IRPs and the City's CAP. The current City of Monterey General Plan Conservation Element also includes goals and policies that relate to energy use and reduction. As discussed under Impact 3.6-3, implementation of the Proposed Plan would increase energy consumption relative to existing conditions. However, the Proposed Plan includes multiple policies that support sustainability through energy efficiency, water conservation, waste reduction, and promotion of alternative transportation. Future development under the Proposed Plan would be subject to increasingly robust regulations to meet the State's renewable energy mandates and would be required to comply with Energy Code and CALGreen requirements. Development under the Proposed Plan would be required to comply with State and local renewable energy and energy efficiency plans. As a result, it would benefit from renewable energy development and increases in energy efficiency. Specifically, vehicles and energy use from increased VMT and average daily trips within the Planning Area and the state is expected to become increasingly more efficient as a result of the regulations included in the Advanced Clean Cars regulations, which address average fuel economy and commercialization of zero-emission vehicles. Building energy efficiency is also anticipated to increase as a result of compliance with CALGreen and the Energy Code, which are expected to move toward zero net energy for newly constructed buildings, and shift toward 100-percent renewable energy under SB 350 and SB 100 regulations. The Proposed Plan supports the transition to renewable energy by promoting 3CE (proposed Housing Element Program 5-A), which would continue to pursue procurement of renewable energy sources to meet its RPS portfolio goals and to comply with State regulations. As noted in its 2022 IRP, 3CE intends to achieve 100-percent renewable portfolio mix by 2030. The City's CAP includes energy-related measures including AMBAG's Energy Watch program, PG&E's renewable energy purchasing program, and building and infrastructure (i.e., lighting and heating/cooling system) retrofits; only the retrofit efforts continue to be relevant to the Proposed Plan and are supported by proposed Housing Element Policies 5.1, 5.2, and 5.3 that promote energy conservation programs, design, and practices. Therefore, buildout of the Proposed

Plan would not conflict with or obstruct State or local plans for renewable energy or energy efficiency and this impact would be less than significant.

Mitigation Measures

None required.

3.7 Geology, Soils, and Seismicity

This section describes the environmental and regulatory setting for geology, soils, and seismicity, including those related to geologic and seismic hazards and soil stability. It also describes impacts related to geology, soils, and seismicity that would result from implementation of the Proposed Plan and mitigation for significant impacts where feasible and appropriate.

No responses to the Notice of Preparation (NOP) were received regarding geologic or soils issues.

Environmental Setting

PHYSICAL SETTING

Geology and Soils

Regional Geology

The City of Monterey is located within the Coast Ranges Geomorphic Province, a relatively geologically young and seismically active region on the western margin of the North American plate.[1] The ranges and valley trend northwest, sub-parallel to the San Andreas fault. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata. The northern and southern ranges are separated by a depression containing the San Francisco Bay.

Planning Area Geology

The Planning Area is located in a region with numerous faults and high seismicity.[2] The seismic setting in the region is dominated by stress associated with the collision between the Pacific tectonic plate and the North American tectonic plate. The San Andreas Fault system is the boundary between these two tectonic plates, which extends nearly 700 miles along a northwest trend from Mexico to offshore northern California and about 50 miles wide. The San Gregorio Fault, which is also part of the San Andreas Fault System and almost entirely offshore, extends 250 miles from

[1] California Geological Survey (CGS). 2002. California Geomorphic Provinces. (Note 36.) Available; https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf. Accessed: October 23, 2023.

[2] Department of Emergency Management, County of Monterey. n.d. Earthquake. Available: https://www.co.monterey.ca.us/government/departments-a-h/administrative-office/office-of-emergency-services/ready-monterey-county/hazard-ready/earthquakes. Accessed: October 24, 2023

Point Año Nuevo to San Gregorio, crossing Monterey Bay.[3] In addition, the Monterey Bay-Tularcitos Fault zone extends around 50 miles from near Santa Cruz across Monterey Bay to near the Sierra de Salinas crest.[4]

Topography

The Planning Area has varied topography and mostly lies approximately 16 feet above sea level.[5] Directly south of the Planning Area, Jacks Peak County Park and the northern portions of the Santa Lucia Mountain range rises steeply above the low-lying flatlands of the Planning Area. Areas along Monterey Bay tend to be flat, but are sloped towards the Bay. Upland areas of the city have intermittent stream channels that have created mesas, which slope towards the Bay.[6] The eastern portion of the Planning Area also consists of pockets of moderate elevation extending from Monterey Veterans Memorial Park, along with the sand dunes on the edge of Del Monte Beach. Steeper slopes in the Planning Area are located along stream channels and within hillside areas, with a few of areas with slopes exceeding 25 percent.[7]

Soil Properties

Soil is generally defined as the unconsolidated mixture of mineral grains and organic material that mantles the land surfaces of the earth. The characteristics of soil reflect the five major influences on their development: topography, climate, biological activity, parent (source) material, and time. Table 3.7-1 and Figure 3.7-1 show the surface soil types in the Planning Area that have been mapped by the Natural Resources Conservation Service (NRCS). As shown in Table 3.7-1, Narlon loamy fine sand, Baywood sand, and Chamise channery loam are the predominant soil units within the Planning Area. In addition, the Arnold, Santa Ynez, and Narlon soils are moderately to highly expansive. Expansive soils can shrink and swell in response to the presence of water, causing foundation and wall cracks, heaving sidewalks, and creating flaws in paved areas. Expansive soils underly the majority of the western portion of the Planning Area, a small portion of the southeastern portion, and a few areas surrounding the Monterey Regional Airport. Generally, projects in areas with expansive soils may require special building foundations or grade preparation, such as the removal of expansive soils and replacement with engineered soils.

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[3] Ryan, H.F., Ross, S.L., Graymer, R.W. n.d.. Earthquakes, Faults, and Tectonics. https://pubs.usgs.gov/circ/c1198/chapters/037-046_Earthquakes.pdf. Accessed: October 23, 2023.

[4] Bryant, W.A. June, 2001. Monterey Bay- Tularcitos fault zone, Tularcitos section (Class A) No. 62c. U.S. Geological Survey. Available: https://earthquake.usgs.gov/cfusion/qfault/show_report_AB_archive.cfm?fault_id=62&section_id=c. Accessed: October 24, 2023.

[5] Maplogs.com. 2023. Elevation of Monterey, CA, USA. Available: https://elevation.maplogs.com/poi/monterey_ca_usa.24759.html. Accessed: October 24, 2023.

[6] City of Monterey. July, 2004. City of Monterey General Plan Update Draft EIR.

[7] Ibid.

Table 3.7-1: Soil Types in the Planning Area

Soil Unit	*Slope Percentage*	*Approximate Percentage of the Planning Area*	*Portions of Planning Area*
Narlon loamy fine sand	2-9%	28.40%	Eastern and Central
Baywood sand	2-15%	15.20%	Northern/Central
Chamise channery loam	9-15%	7.30%	Central
Sheridan coarse sandy loam	5-15%	4.60%	Eastern
Narlon loamy fine sand	15-30%	4.50%	Eastern
Xerorthents, loamy	15-50%	4.40%	Southeastern
Santa Ynez fine sandy loam	15-30%	3.70%	Southeastern
Arnold-Santa Ynez complex	9-30%	3.50%	Eastern
Dune land	0-3%	2.90%	Northern/Central
Sheridan coarse sandy loam	15-30%	2.90%	Eastern and Central
Santa Lucia channery clay loam	15-30%	2.80%	Southern and eastern
Santa Lucia channery clay loam	30-50%	2.30%	Southern and eastern
Arnold loamy sand	9-20%	2.10%	Central
Sheridan coarse sandy loam	30-75%	2.00%	Eastern
Gazos silt loam	15-30%	1.90%	Western
Oceano loamy sand	2-15%	1.70%	Central
Tangair fine sand	2-9%	1.60%	Central
Santa Ynez fine sandy loam	15-30%	1.20%	Southeastern
Chamise channery loam	15-30%	1.10%	Central
Gazos silt loam	30-50%	1.10%	Eastern
Pfeiffer fine sandy loam	2-9%	0.60%	Central
Santa Lucia-Reliz association	30-75%	0.40%	Southeastern
Aquic Xerofluvents	0-5%	0.30%	Central and southeastern
Elder very fine sandy loam	2-9%	0.30%	Southeastern
Santa Ynez fine sandy loam	9-15%	0.20%	Southern
Xerorthents, dissected	50-65%	0.20%	Southern
Coastal Beaches		0.80%	Central/Northern
Water		0.60%	Central
Badland*		0.20%	Southeastern
Pits and Dumps**		0.20%	Eastern

Table 3.7-1: Soil Types in the Planning Area

Soil Unit	*Slope Percentage*	*Approximate Percentage of the Planning Area*	*Portions of Planning Area*

Sources: Web Soil Survey, Natural Conservation Service 2019.

* Badland is moderately steep to very steep barren land that is dissected by many intermittent drainage channels. Ordinarily, the areas are not stony. Badland is most common in semiarid and arid regions where streams and surface runoff have cut into soft bedrock such as shale. Local relief generally ranges from 10 to 200 meters in height. Potential runoff is very high and erosion is active.[9]

** Dumps are areas of smoothed or uneven accumulations or piles of waste rock and general refuse. Some dumps that are closely associated with pits are mapped as a complex map unit of dumps and pits. Pits are open excavations from which soil and commonly underlying material have been removed, exposing either rock or other material. Common kinds of pits are those that result from mining, gravel operations, and quarries. Pits are often closely associated with dumps.[10]

Seismicity

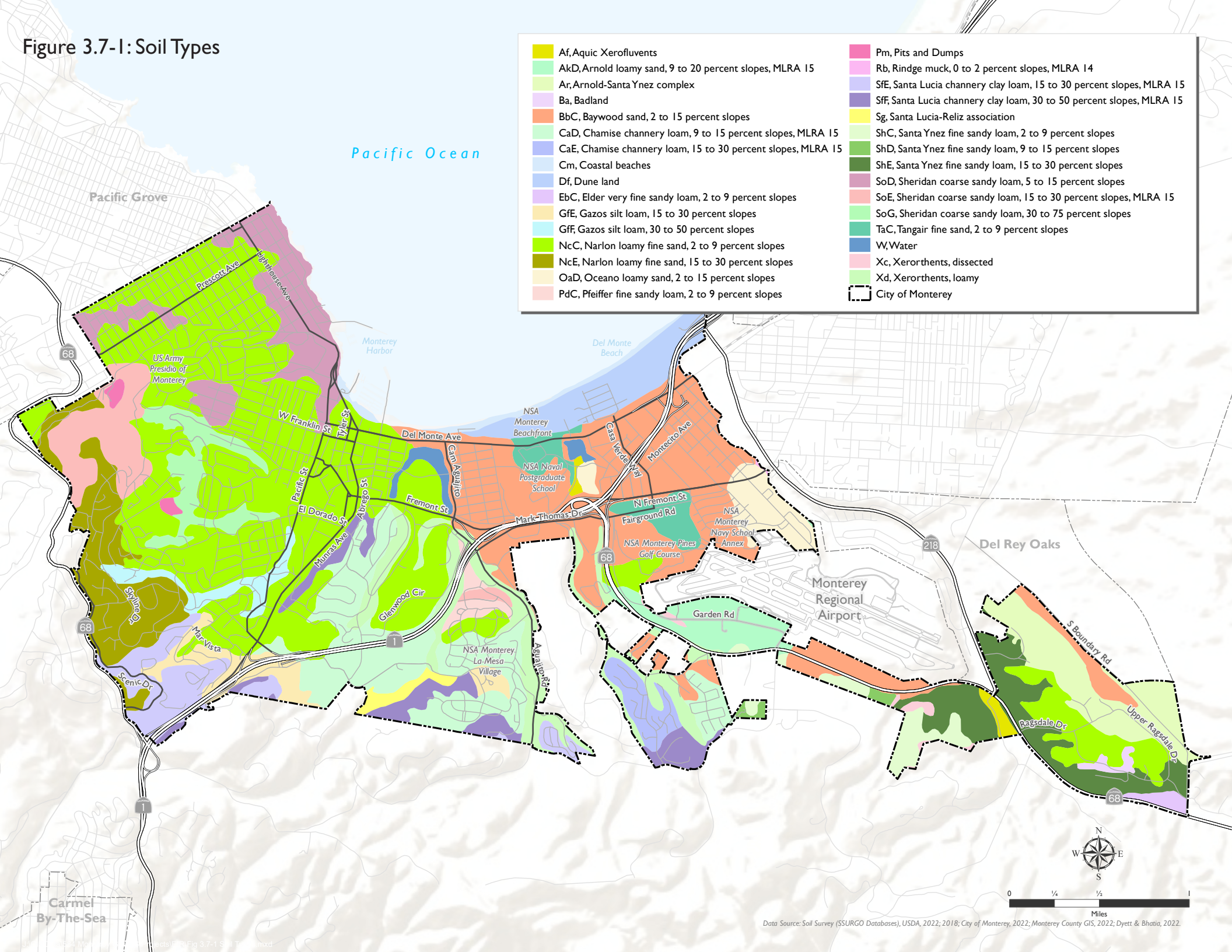
Regional Faults

Generally, earthquakes occur when tectonic plates of the Earth's crust collide or slide past one another along their boundaries or faults, and accumulated stress is released, resulting in seismic slippage. California is particularly susceptible to such plate movements, notably, the largely horizontal or "strike-slip" movement of the Pacific Plate as it impinges on and slides past the west margin of the North American Plate. The performance of man-made structures during a major seismic event varies widely due to a number of factors: location with respect to active fault traces or areas prone to liquefaction or seismic-induced landslides; the type of building construction (i.e., wood frame, unreinforced masonry, non-ductile concrete frame); the proximity and magnitude of the seismic event; and many other factors. In general, evidence from past earthquakes shows that wood frame structures tend to perform well, especially when their foundations are properly designed and anchored. Older, unreinforced masonry structures, on the other hand, do not perform as well, especially if they have not undergone appropriate seismic retrofitting. Applicable building code requirements include seismic requirements that are designed to ensure the satisfactory performance of building materials under seismic conditions.

[9] *National Soil Survey Handbook.* Legend Development and Data Collection. Accessed: January 16, 2024. Available: https://directives.sc.egov.usda.gov/44259.wba.

[10] Ibd.

Figure 3.7-1: Soil Types



Data Source: Soil Survey (SSURGO Databases), USDA, 2022; 2018; City of Monterey, 2022; Monterey County GIS, 2022; Dyett & Bhatia, 2022.

Monterey is located west of the San Andreas fault system, a complex of active faults forming the boundary between the North American and Pacific lithospheric plates. Movement of the plates relative to one another results in the accumulation of strain along the faults, which is released during earthquakes. Numerous moderate to strong historic earthquakes have been generated in northern California by the San Andreas fault system. This level of active seismicity poses a relatively high seismic risk for Monterey. Other regional faults include the the Palo Colorado-San Gregorio fault located southwest of the region, Monterey Bay-Tularcitos Fault located seaward of the City of Seaside, and the Calaveras-Paicines Fault located northeast of the region.[11]

The San Andreas fault system includes numerous faults found by the California Geological Survey (CGS) considered under the Alquist-Priolo Earthquake Fault Zoning Act to be active (i.e., to have evidence of fault rupture in the past 11,000 years). Active regional faults include the San Andreas and Calaveras faults. The Loma Prieta Earthquake in 1989 was the largest major earthquake that occurred on the San Andreas Fault in the last 50 years with a Richter Magnitude (M6.9). The epicenter was located approximately 50 miles north of Monterey Bay. The earthquake caused damage to the Moss Beach access road and Moss Landing in North Monterey County, and was felt as far as San Diego and western Nevada. The Loma Prieta Earthquake caused 63 casualties, injured 3,757 persons, and created an estimated $6.8 billion in direct damages.[12]

The U.S. Geological Survey's (USGS) Working Group on California Earthquake Probabilities estimates that there is a 72 percent chance that a 6.7 or greater magnitude earthquake will occur in the greater San Francisco Region, which includes the Monterey Bay, between 2014 and 2044.[13] The probability of a 6.7 magnitude or greater earthquake occurring along the Palo Colorado-San Gregoria fault is 10 percent by 2032, and along the Calaveras-Paicines Fault is 7.4 percent between 2014 and 2044.[14]

Planning Area-Specific Seismicity

A complex interaction of tectonic forces, geologic materials, soils, topography, and groundwater conditions affect the nature of seismic hazards at any site. The Navy Fault and Sylvan Thrust are part of the Monterey Bay-Tularcitos Fault Zones and the Del Rey Oaks Section of the Chupines cross the Planning Area. In addition, three active faults listed above have been identified within 40

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[11] County of Monterey. March 2022. Multi-Jurisdictional Hazard Mitigation Plan, Volume 1. Available: https://www.co.monterey.ca.us/government/departments-a-h/administrative-office/office-of-emergency-services/hazard-mitigation/2022-mjhmp. Accessed: October 25, 2023.

[12] California Department of Conservation. n.d. The 1989 Loma Prieta Earthquake. Available: https://www.conservation.ca.gov/cgs/earthquakes/loma-prieta. Accessed: October 26, 2023

[13] Field, E.H., and 2014 Working Group on California Earthquake Probabilities, 2015, UCERF3: A new earthquake forecast for California's complex fault system. U.S. Geological Survey 2015–3009, Available : https://pubs.usgs.gov/fs/2015/3009/pdf/fs2015-3009.pdf. Accessed: January 5, 2024.

[14] Ibid.

miles of the Planning Area, all of which are not zoned under the Alquist-Priolo Earthquake Fault Zoning Act.[15, 16]

Figure 3.7-2 shows the fault zones within the Planning Area. The Navy Fault runs north-south directly through the center of the Planning Area crossing the intersection of Highway 1 and Highway 68. The Navy Fault Segments of the Sylvan Thrust run east, intersecting the Navy Fault south of the Planning Area and curving towards southwestern portion of the Planning Area. In addition, segments of the Del Rey Oaks section of the Chupines Fault run north south through the southeastern portion of the Planning Area. These faults are potentially active but not known to be active at this time and are not considered Alquist-Priolo Special Studies Zones.[17] Therefore, potential for surface rupture within the Planning Area is minimal.

The nearest Alquist-Priolo hazard zone is associated with the San Andreas Fault, approximately 26 miles northeast of the Planning Areas, as well as the Calaveras Fault, approximately 35 miles northeast of the project site. The next nearest fault zones are the Hayward Fault Zone and the Greenville Fault, both approximately 60 miles to the northeast.[18,19] The largest earthquake on the Hayward fault occurred in 1868 with an epicenter south of San José, California.[20] Surface fault rupture occurred along the Hayward fault from Fremont to San Leandro. The magnitude of the earthquake is estimated at 6.8. Two earthquakes occurred on the Greenville Fault in 1980 that exhibited surface fault rupture and creep at the surface. On January 24, 1980, an earthquake of Richter Magnitude 5.5 (M5.5) occurred about 100 miles northeast of the Planning Area. On January 26, 1980, a second quake, M5.8, occurred in the vicinity of Frick Lake, which is also about 100 miles northeast of the Planning Area. The earthquakes caused injuries and property damage. The damage included shattered windows, merchandise shaken from store shelves, mobile homes knocked off their foundations, swayed and cracked buildings, and snapped gas lines.

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15 California Geological Survey (CGS). 2021. Earthquake Zones of Required Investigation (website). Available online at: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed: June 2, 2021.

16 U.S. Geological Survey (USGS). 2021. Quaternary fault and fold database for the United States. Available: https://www.usgs.gov/natural-hazards/earthquake-hazards/faults?qt-science_support_page_related_con=4#qt-science_support_page_related_con. Accessed: May 4, 2021.

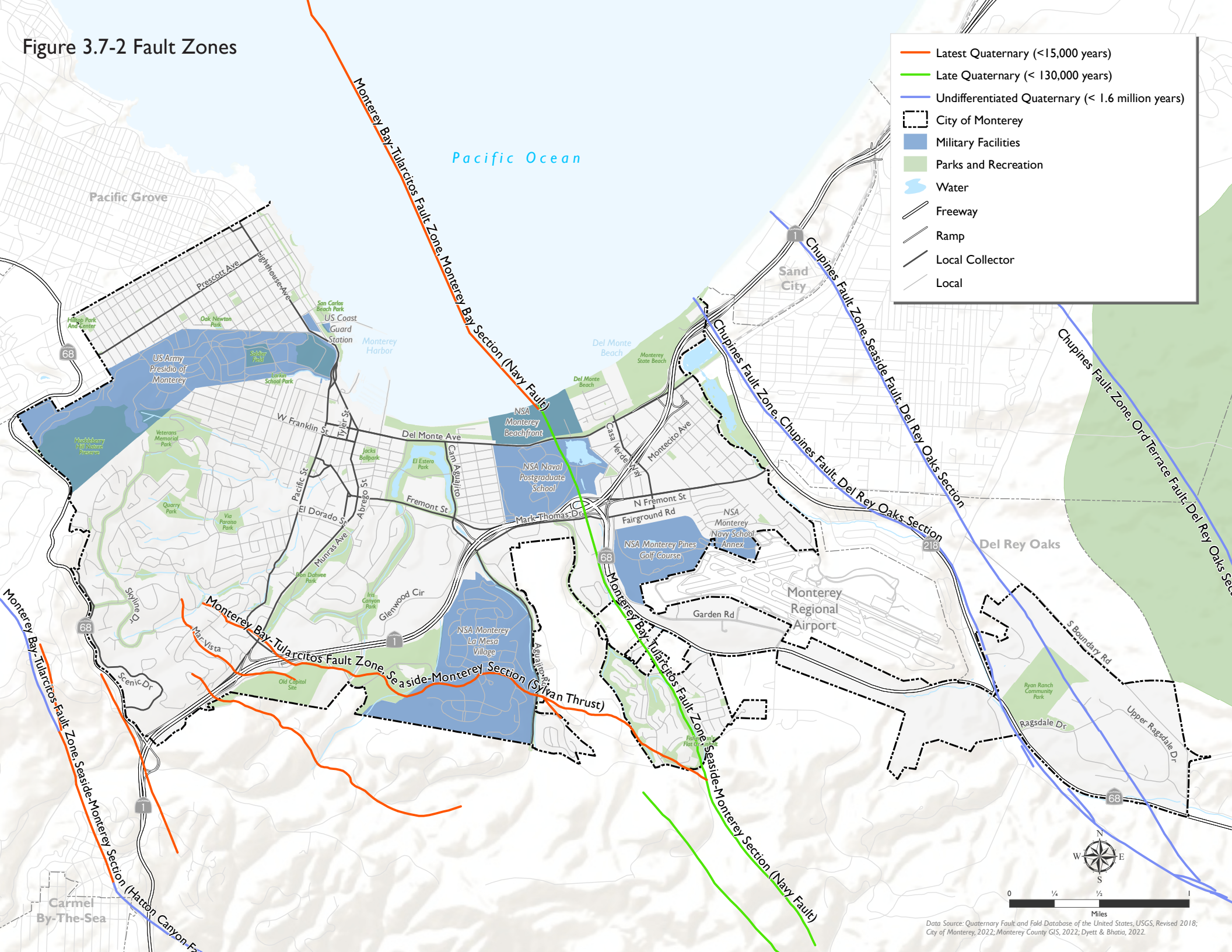
17 City of Monterey, 2005. Monterey General Plan Update Draft EIR.

18 CGS, 2021.

19 USGS, 2021.

20 U.S. Geological Survey (USGS). 2018. The Hayward Fault—Is It Due for a Repeat of the Powerful 1868 Earthquake? August. (FS 2008-3019.) Available: https://pubs.usgs.gov/fs/2018/3052/fs20183052.pdf. Accessed: May 4, 2021.

Figure 3.7-2 Fault Zones



Data Source: Quaternary Fault and Fold Database of the United States, USGS, Revised 2018; City of Monterey, 2022; Monterey County GIS, 2022; Dyett & Bhatia, 2022.

Seismic and Geological Hazards

Seismic Shaking

Seismic ground shaking is a general term referring to all aspects of motion of the earth's surface resulting from an earthquake. Ground shaking is normally the major cause of damage in seismic events. The extent of ground shaking is determined by the magnitude and intensity of the earthquake, distance from the rupture, and local geologic conditions. Intensity is a subjective measure of the perceptible effects of seismic energy at a given point and varies with distance from the epicenter and local geologic conditions. The Modified Mercalli Intensity Scale (MMI) is the most commonly used scale for measurement of the subjective effects of earthquake intensity. Earthquake size is generally quantitatively measured in terms of moment magnitude. A rupture of the Hayward fault is considered capable of generating a moment magnitude (M_W) 7.4 earthquake.[24] In addition, earthquakes on any of the local faults or on other faults located in the vicinity or region could produce significant seismic shaking within the Planning Area.[25]

Surface Fault Rupture

Surface fault rupture occurs when the ground surface is broken due to fault movement during an earthquake. The location of surface fault rupture can be assumed to be along an active or potentially active fault trace. As discussed above, the faults in the Planning Area are not known to be active at this time, which reduces the risk for surface fault rupture. While the San Andreas Fault has a history of surface fault rupture in the 1906 San Francisco Earthquake and the 1989 Loma Prieta, the nearest surface fault rupture occurred about 30 miles outside of the Planning Area.[26]

Liquefaction

Liquefaction is the temporary transformation of loose, saturated, granular sediments from a solid state to a liquefied state as a result of seismic ground shaking. In the process, the soil undergoes a temporary loss of strength, which can cause ground displacement or ground failure. Since saturated soils are a necessary condition for liquefaction, soil layers in areas where the groundwater table is near the surface have higher liquefaction potential than those in which the water table is located at greater depths. The Planning Area includes areas of moderate and high liquefaction susceptibility. While most of the Planning Area has a low susceptibility, several small areas adjacent to creeks and streams spreading out from the Bay have high susceptibility, as shown in Figure 3.7-3. In addition, there is high and moderate susceptibility along the central and eastern coast of the Planning Area. Regional mapping is only a general analysis; site specific analysis would identify specific liquefaction risk, which is influenced by the depth to groundwater and soil type.

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[24] Watt, J., Ponce, D., Parsons, T., and Hart, P. 2016. Missing Link Between the Hayward and Rodgers Creek Faults. Science Advances (Volume 2, no. 10). Available: https://advances.sciencemag.org/content/2/10/e1601441.full

[25] City of Monterey, 2004. Monterey General Plan Update Draft EIR.

[26] USGS, 2018.

Lateral Spreading

Lateral spreading refers to a type of landslide that forms on gentle slopes and has rapid fluid-like movement. Factors determining the potential for liquefaction and lateral spreading are soil type, the level and duration of seismic ground motions, the type and consistency of soils, and the depth to groundwater. Locations within the Planning Area that have high liquefaction susceptibility, as shown on Figure 3.7-3, have the highest risk of lateral spreading if they occur adjacent to an open face or slope.

Landslides

The strong ground motions that occur during earthquakes are capable of inducing landslides, generally where unstable slope conditions already exist. A landslide is the downhill movement of masses of earth material under the force of gravity. The primary factors influencing the stability of a slope include the nature of the underlying soil or bedrock, the geometry of the slope (height and steepness), rainfall, and the presence of previous landslide deposits. Landslide susceptibility in the Planning Area ranges from low to high as shown in Figure 3.7-4. There is moderate and high landslide hazard in the southeastern and southern boundary outside of the Planning Area. There are also a few small areas of moderate landslide susceptibility in the southwestern portion of the Planning Area where new housing is proposed. However, because these areas are found in small portions, landslide risk within the Planning Area is not significant.

Soil Erosion

Soil erosion is the process by which soil materials are worn away and transported to another area, either by wind or water. Not accounting for slope and groundcover factors, soils high in clay have low susceptibility to erosion because they are resistant to detachment. Coarse textured soils, such as sandy soils, also have low erosion potential despite their easy detachment, because of low runoff. Medium textured soils, such as the silt loam soils, are moderately susceptible to erosion, while soils with a high silt content are the most susceptible.[27]

The soils in the City of Monterey with the highest susceptibility to water erosion exist in the western and central portion of the city. Narlon soils are predominant in the western, gently sloping areas as well as in steeper hillside areas, posing moderate to high erosion potential.[28] Baywood soils are found mainly in the central, gently sloping portions of the Planning Area posing slight to moderate erosion potential. Depending on the slopes of Sheridan soils, found also in the western hilly portions of the Planning Area, erosion potential is slight to high. Dune land, located just on the margin of Monterey Bay areas poses the most severe erosion risk.

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[27] Institute of Water Research (IWR). 2002. K Factor. Available: http://www.iwr.msu.edu/rusle/kfactor.htm Accessed: October 26, 2023.

[28] City of Monterey. 2004. Monterey General Plan Update Draft EIR.

Figure 3.7-3 Liquefaction Risk

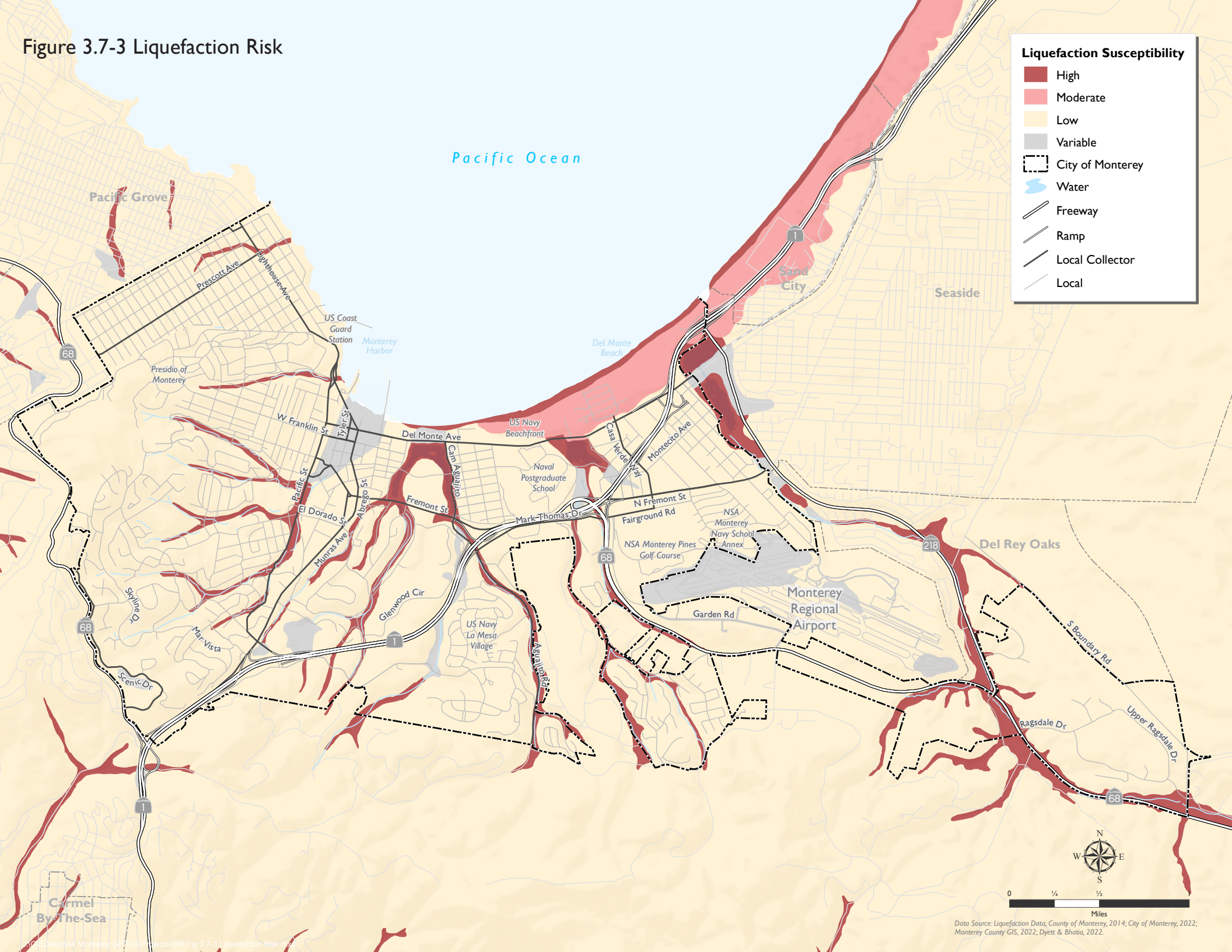
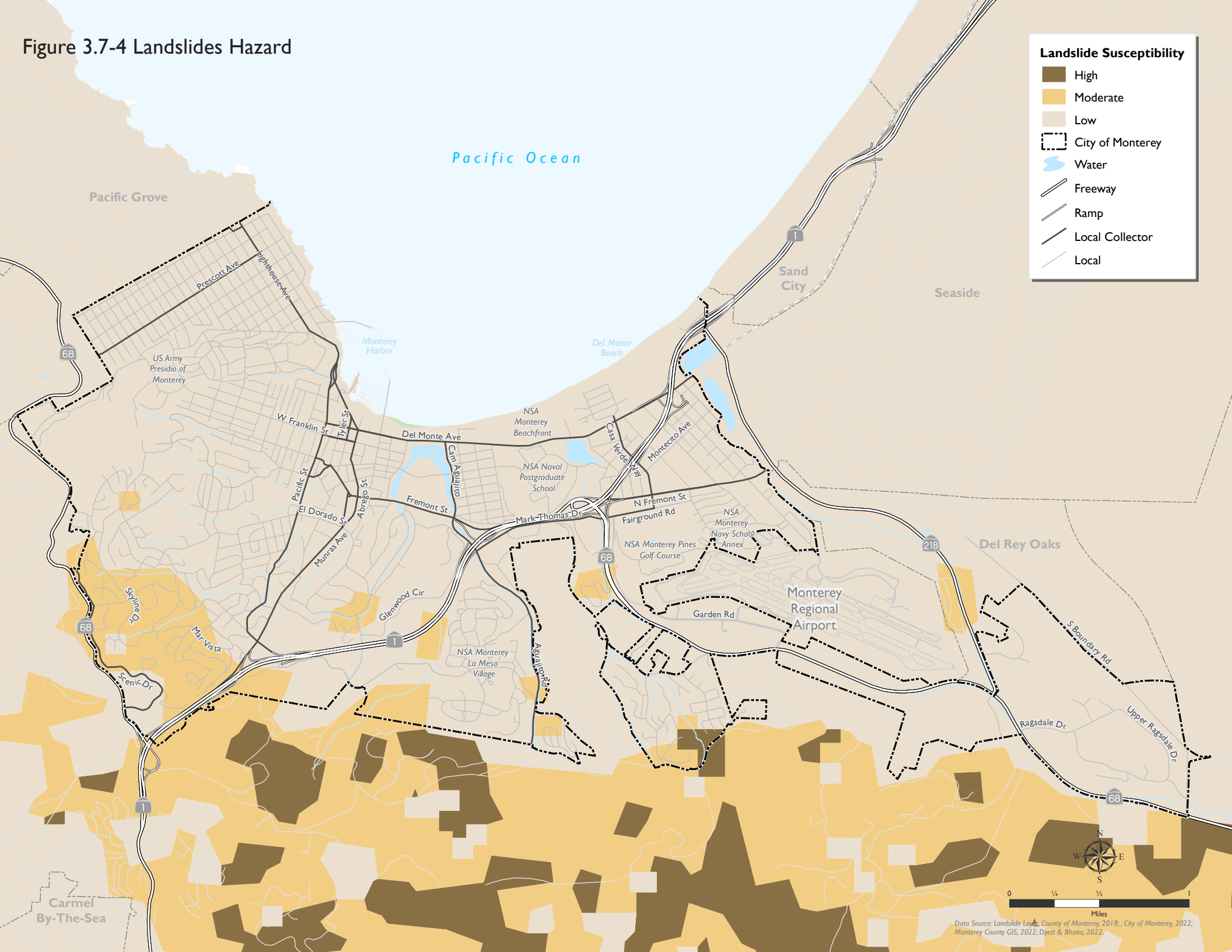


Figure 3.7-4 Landslides Hazard



Coastal Erosion

Coastal erosion is the wearing away of land along the coast due to natural activity or human influences, resulting in the loss of beach, shoreline, dune, or cliff material.[29] Coastal erosion hazards are influenced by sea level, wave patterns, storm patterns, but can also be influenced by human activity such as dredging.[30] Coastal erosion along Monterey Bay can create hazardous conditions, threatens dune habitat, and poses a threat to the agriculture and tourism industries.[31] Historic coastal erosion events in the county include: erosion and terrace loss in Carmel between 1982 and 1983 and substantial dune erosion in the Fort Ord area in Marina between 1997 and 1998 as a result of El Niño events; isolated cliff failures throughout the county in 1989 resulting from the Loma Prieta Earthquakes; and significant erosion in the Big Sur area due to winter storms in 2017. Sea level rise and extreme weather are likely to exacerbate erosion risk. In Monterey, average erosion rates range from about one to two feet per year, creating a moderate degree of risk.

Expansive Soils

Expansive soils have shrink-swell capacity, meaning they may swell when wetted and shrink when dried. Expansive soils can be hazardous to built structures, and may cause cracks in building foundations, distortion of structural elements, and warping of doors and windows. The higher the clay content of a soil, the higher its shrink-swell potential.

The U.S. Department of Agriculture National Resource Conservation Service (USDA NRCS) analyzes the shrink-swell potential of each soil type based on its linear extensibility and clay content and categorizes it as "low," "moderate," "high," or "very high." Where the shrink-swell classification is moderate to very high, shrinking and swelling can cause damage to buildings, utilities, roads, and other structures and the gradual cracking, settling, and weakening of older buildings could create potential safety concerns and financial loss. As shown in Figure 3.7-1 and described in Table 3.7-1, the majority of the Planning Area is underlain with the Narlon loamy fine sand, Baywood sand, and Chamise channery loam, which are low to moderately expansive.[32]

Subsidence

Subsidence occurs when a large portion of land is displaced vertically. This typically is due to the withdrawal of groundwater, oil, or natural gas. While the County of Monterey Multi-Jurisdiction Hazard Mitigation Plan identifies that drought could lead to increase pumping of groundwater wells and increase land subsidence risks, the county does not currently demonstrate significant risk for sinking due to low ground water levels.[33] The USGS California Water Science Center maps of historical and current recorded subsidence does not identify the City of Monterey as an area that

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[29] Department of Emergency Management, County of Montery. n.d. Coastal Erosion. Available: https://www.co.monterey.ca.us/government/departments-a-h/administrative-office/office-of-emergency-services/ready-monterey-county/hazard-ready/coastal-erosion. Accessed: October 26, 2023.

[30] Ibid.

[31] County of Monterey. 2022. Multi-Jurisdictional Hazard Mitigation Plan, Volume 1

[32] United States Department of Agriculture. (2023). Natural Resources Conservation Service Web Soil Survey. Available: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed: October 26, 2023

[33] County of Monterey. 2022. Multi-Jurisdictional Hazard Mitigation Plan, Volume 1

has experienced subsidence.[34] As a result, there is a low potential for subsidence to occur in the Planning Area.

Paleontological Resources

Paleontological resources are the fossil remains or traces of past life forms, including vertebrate and invertebrate species as well as plants. Paleontological resources are considered *significant* if they are identifiable vertebrate fossils; uncommon invertebrate, plant, and trace fossils; or other data that provide information important to the scientific record. Paleontological resources are older than the middle Holocene (i.e., older than approximately 5,000 years).

The Planning Area is located in the Monterey Bay Peninsula, which forms part of the northern portion of the Coast Ranges Geomorphic Province of California.[35] The area is bounded by the Pacific Ocean to the west and the Great Valley Geomorphic Province to the east.

Geologic units in the northern portion of the Peninsula are primarily Holocene Older Dune Sand and Dune Sand, with Pleistocene Aromas Sand lying further inland. The Planning Area is underlain with Holocene marine terrace deposits and the Miocene Monterey Formation.[36]

According to a records search of the University of California Museum of Paleontology specimen search, Pleistocene-age deposits in Monterey County have yielded numerous fossils, including *Cetotherium* (extinct genus of baleen whales) from the Miocene-age formation, *Bison* (genus of bison), *Camelops* (extinct genus of camel), and *Squatina* (genus of angel sharks) from the Pleistocene-age Aromas Sand, and *Straitolamia* (extinct genus of sharks).[37] Therefore, paleontological resources could be discovered in the Planning Area during ground disturbance.

REGULATORY SETTING

Federal Regulations

Earthquake Hazards Reduction Act of 1977

Federal laws codified in United States Code Title 42, Chapter 86, were enacted to reduce risks to life and property from earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program. Implementation of these

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[34] USGS. n.d. Areas of Land Subsidence. Available: https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html. Accessed: October 26, 2023.

[35] California Geological Survey (CGS). 2002. California Geomorphic Provinces. (Note 36.) Available; https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf. Accessed: May 3, 2021.

[36] Wagner, D.L., Greene, H.G., Saucedo, G.J., Pridmore, C.L. 2002. Geologic Map of the Monterey 30'x60' Quadrangle and Adjacent Areas, California. California Department of Conservation. Available: https://www.conservation.ca.gov/cgs/Documents/Publications/Regional-Geologic-Maps/RGM_001/RGM_001_Monterey_2002_Plate3of3.pdf. Accessed: October 26, 2023.

[37] University of California Museum of Paleontology. 2020. *Advanced Specimen Search, Monterey County*. Available: https://ucmpdb.berkeley.edu/cgi/ucmp_query2. Accessed: October 26, 2023.

requirements are regulated, monitored, and enforced at the State and local levels. Key regulations and standards applicable to the Proposed Plan are summarized below.

U.S. Geological Survey Landslide Hazard Program

The USGS created the Landslide Hazard Program in the mid-1970s; the primary objective of the program is to reduce long-term losses from landslide hazards by improving our understanding of the causes of ground failure and suggesting mitigation strategies. The federal government takes the lead role in funding and conducting this research, whereas the reduction of losses due to geologic hazards is primarily a state and local responsibility.

Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 (DMA2K) (Public Law 106-390) amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 to establish a Pre-Disaster Mitigation (PDM) program and new requirements for the federal post-disaster Hazard Mitigation Grant Program (HMGP). DMA2K encourages and rewards local and state pre-disaster planning. It promotes sustainability and seeks to integrate state and local planning with an overall goal of strengthening statewide hazard mitigation. This enhanced planning approach enables local, tribal, and state governments to identify specific strategies for reducing probable impacts of natural hazards such as floods, fire, and earthquakes. In order to be eligible for hazard mitigation funding after November 1, 2004, local governments are required to develop a Hazard Mitigation Plan (HMP) that incorporates specific program elements of the DMA2K law. The City of Monterey participated in the County of Monterey Multi-Jurisdiction Hazard Mitigation Plan, as described under Local Regulations, below.

State Regulations

California Multi-Hazard Mitigation Plan

The State of California Multi-Hazard Mitigation Plan, also known as the State Hazard Mitigation Plan (SHMP), was approved by FEMA in 2018.[38] The SHMP outlines present and planned activities to address natural hazards. The adoption of the SHMP qualifies the State of California for federal funds in the event of a disaster. The State is required under the Disaster Mitigation Act of 2000, described above, to review and update its SHMP and resubmit for FEMA approval at least once every 5 years to ensure the continued eligibility for federal funding. The SHMP provides goals and strategies which address minimization of risks associated with natural hazards and response to disaster situations. The SHMP notes that the primary sources of losses in the state of California are fire and flooding; and while earthquakes occur less frequently, they account for the greatest combined losses.

[38] CalOES. 2018. California State Hazard Mitigation Plan. Available: https://www.caloes.ca.gov/wp-content/uploads/002-2018-SHMP_FINAL_ENTIRE-PLAN.pdf. Accessed July 5, 2023

California Building Code

The California Building Code (CBC) is Part 2 of Title 24 of the California Code of Regulations. The CBC incorporates the International Building Code, a model building code adopted across the United States. The CBC is updated every three years, and the current 2022 version took effect January 1, 2023. With the exception of certain additions, deletions, and amendments, the City adopted the CBC by reference pursuant to Chapter 9, Article 1 of the City of Monterey City Code. Through the CBC, the State provides a minimum standard for building design and construction. Of particular relevance, Chapter 16 of the CBC contains specific requirements for structural (building) design, including seismic loads. Chapter 18 of the CBC includes requirements for soil testing, excavation and grading, and foundation design. The 2022 CBC (based on the 2021 International Building Code) has been amended and adopted as the Building Code of the City of Monterey, regulating the erection, installation, alteration, repair, relocation replacement, addition to use or maintenance of buildings within the City.

California Alquist–Priolo Earthquake Fault Zoning Act

The Alquist–Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures used for human occupancy. The main purpose of the law is to prevent the construction of buildings used for human occupancy on top of active faults. The law only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards, such as ground shaking or landslides. The law requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones or Alquist–Priolo Zones) around the surface traces of active faults, and to issue appropriate maps. The maps are then distributed to all affected cities, counties and state agencies for their use in planning and controlling new or renewed construction. Generally, construction within 50 feet of an active fault zone is prohibited as discussed above under *Environmental Setting*, the San Andrea Fault, zoned under the Alquist-Priolo Earthquake Fault Zoning Act, is approximately 26 miles northeast of the Planning Area.[39]

Seismic Hazards Mapping Act, California Public Resources Code Sections 2690–2699.6

The Seismic Hazards Mapping Act was developed to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a Seismic Hazard Zone, a geotechnical investigation of the site must be conducted, and appropriate mitigation measures incorporated into the project design. Geotechnical investigations conducted within Seismic Hazard Zones must incorporate standards specified by the CGS Special Publication

[39] State of California. Alquist-Priolo Earthquake Fault Zoning Act. 1972. Available: https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?division=2.&chapter=7.5.&lawCode=PRC. Accessed: January 16, 2024.

117, Guidelines for Evaluating and Mitigating Seismic Hazards. There are no Seismic Hazard Zones within the Planning Area.[40]

California Department of Transportation (Caltrans)

Jurisdiction of the California Department of Transportation (Caltrans) includes State and interstate routes within California. Any work within the right-of-way of a federal or State transportation corridor is subject to Caltrans regulations governing allowable actions and modifications to the right-of-way. Caltrans standards incorporate the CBC and contain numerous rules and regulations to protect the public from seismic hazards such as surface fault rupture and ground shaking. In addition, Caltrans standards require that projects be constructed to minimize potential hazards associated with cut and fill operations, grading, slope instability, and expansive or corrosive soils, as described in the Caltrans Highway Design Manual (HDM). Caltrans and local project sponsors, as part of the project development and delivery process, are obligated to conduct paleontological studies in response to federal, state, and local laws, regulations, and ordinances. For example, Section 305 of the Federal Aid Highway Act of 1956 (20 USC 78, 78a) gives authority to use federal funds to salvage archaeological and paleontological sites affected by highway projects.

National Pollution Discharge Elimination System Permits

In California, the State Water Resources Control Board (SWRCB) and its Regional Water Quality Control Board (RWQCB) administer the National Pollution Discharge Elimination System (NPDES) program. The NPDES permit system was established as part of the Federal Clean Water Act to regulate both point source discharges and non-point source discharges to surface water of the United States, including the discharge of soils eroded from construction sites. The NPDES program consists of characterizing receiving water quality, identifying harmful constituents (including siltation), targeting potential sources of pollutants (including excavation and grading operations), and implementing a comprehensive stormwater management program. Construction and industrial activities typically are regulated under statewide general permits that are issued by the SWRCB. Additionally, the SWRCB issues Water Discharge Requirements that also serve as NPDES permits under the authority delegated to the RWQCBs, under the Clean Water Act. See EIR Section 3.9: *Hydrology and Water Quality*, for more information about the NPDES.

California Public Resources Code

Sections 5097–5097.6 of the California Public Resources Code outline the requirements for cultural resource analysis prior to the commencement of any construction project on state lands. The state agency proposing the project may conduct the cultural resource analysis or they may contract with the State Department of Parks and Recreation. In addition, this section stipulates that the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands is a misdemeanor. It prohibits the knowing destruction of objects of antiquity without a permit (expressed permission) on public lands and provides for criminal

[40] State of California. Seismic Hazards Mapping Act. 1990. Available: https://law.justia.com/codes/california/2005/prc/2690-2699.6.html. Accessed: January 16, 2024.

sanctions. As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

Local Regulations

City of Monterey General Plan 2004 (General Plan)

The City of Monterey General Plan (General Plan) includes the following goals and policies associated with geology, soils, and seismicity:

Conservation Element

Goal b. Protect creeks, lakes, wetlands, beaches, and Monterey Bay from pollutants discharged to the storm drain system.

> **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.
>
> **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.

Open Space Element

Goal e. Ensure streams continue to function as natural flood control channels and habitat for native plants and animals.

> **Policy e.1.** Maintain the City's streams by controlling erosion.

County of Monterey Multi-Jurisdiction Hazard Mitigation Plan

In March 2022, the City of Monterey participated with 12 incorporated municipalities, 5 special districts, and the County of Monterey to prepare an updated multi-jurisdiction hazard mitigation plan to suit the local needs and capabilities of the county. The County of Monterey Multi-Jurisdiction Hazard Mitigation Plan (MJHMP) identified key vulnerabilities and hazards of concern for the county, including drought and water shortage, earthquakes, pandemic/epidemic, wildfire, localized stormwater flooding, severe winter storms and aging and limited road infrastructure. The MJHMP identifies resources, information, and strategies for reducing risks associated with these hazards.

Monterey City Code

Chapter 9, Article 1 of the City of Monterey City Code adopts the 2022 California Building Code in its entirety excepting certain additions, deletions, and amendments. As discussed above, the CBC regulates seismic design, the excavation of foundations and retaining walls, analysis of slope instability, requirements for drainage and grading, and other aspects of building design and construction that relate to geology, soils, and seismicity.

Chapter 9, Article 5 provides requirements to reduce earthquake hazards for unreinforced masonry buildings (URMs), including undertaking structural analysis by a civil or structural engineer or architect and sending a letter indicating the owner's compliance with the minimum earthquake standards adopted by the City.

Chapter 9, Article 7 includes regulations regarding flood hazard protection, and defines provisions aimed at reducing erosion damage and hazards. The purpose of this chapter is to minimize expenditure of public money for costly flood control projects, to minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard, to insure that potential buyers are notified that property is in an area of special flood hazard; and to insure that those who occupy the areas of special flood hazard assume responsibility for their actions. This chapter includes standards of construction (9-71.1), standards for manufactured homes (9-71.4), and standards for coastal high hazard areas (9-71.5).

Chapter 30, Article 1, Sewers and Sewage Disposal, includes regulations regarding connection to city sewer system, maintenance of sanitary sewer laterals, and sewer overflows. This chapter defines private sanitary sewer collection system, sanitary sewer, and wastewater.

Chapter 31.5, Article 2, Urban Storm Water Quality Management and Discharge Control Ordinance, provides provisions to protect and enhance the water quality of waters of the State and waters of the United States, and to protect water bodies in a manner pursuant to and consistent with Federal, State, and regional regulations. Specifically, this ordinance stipulates regulations for new development aligned with NPDES General Permit (No. CAS000004 Waste Discharge Requirements for Storm Water Discharges from Small MS4s), as well Central Coast RWQCB Post-Construction Stormwater Management Requirements for Development Projects (Resolution No. R3-2013-0032). The ordinance requires all construction site owners and contractors to implement storm water management practices (BMPs), which prevent pollutants generated during construction from leaving the construction site and entering the City's storm water system during wet or dry weather.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if the Proposed Plan would:

Criterion 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 or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42),**
- **ii. Strong seismic ground shaking,**
- **iii. Seismically related ground failure, including liquefaction, or**

iv. Landslides;

Criterion 2: **Result in substantial soil erosion or the loss of topsoil;**

Criterion 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;**

Criterion 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;**

Criterion 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; or**

Criterion 6: **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.**

METHODOLOGY AND ASSUMPTIONS

Geology, Soils, and Seismicity

This evaluation of geologic, soils, and seismic hazard conditions was completed using published geologic, soils, and seismic maps and studies from USGS and CGS. In order to reduce or mitigate potential hazards from earthquakes or other local geologic hazards, implementation of the Proposed Plan would be governed by existing regulations at the federal, state, and local levels, including existing Monterey General Plan (General Plan) policies and provisions. These regulations require that a proposed project design reduce potential adverse soils, geological, and seismicity effects to the extent feasible. Compliance with these regulations is required, not optional. These provisions ensure that development will continue to be completed in compliance with local and State regulations.

Paleontological Resources

An evaluation of impacts on paleontological resources was completed using published geologic maps from CGS (Wagner, Bortugno, & McJunkin, 1991) and database query at the University of California Museum of Paleontology (University of California Museum of Paleontology, 2021), following procedures outlined in the Standard Guidelines provided by the Impact Mitigation Guidelines Revisions Committee of the Society of Vertebrate Paleontology (SVP) (Society of Vertebrate Paleontology, 2010).[41, 42, 43]

The Standard Guidelines include procedures for the investigation, collection, preservation, and cataloguing of fossil-bearing sites, including the designation of paleontological sensitivity. The Standard Guidelines are widely accepted among paleontologists and are followed by most investigators. The Standard Guidelines identify the two key phases of paleontological resource

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[41] Wagner, Bortugno, & McJunkin, 1991.

[42] University of California Museum of Paleontology, 2021.

[43] Society of Vertebrate Paleontology. 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources.* Available: https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines.pdf. Accessed: June 4, 2021.

protection as (1) assessment and (2) implementation. Assessment involves identifying the potential for a project site or area to contain significant nonrenewable paleontological resources that could be damaged or destroyed by project excavation or construction. Implementation involves formulating and applying measures to reduce such adverse effects.

For the assessment phase, the Standard Guidelines prescribe the following steps:[44]

- Identify the geologic units that would be affected by the project, based on the project's depth of excavation—either at ground surface or below ground surface, defined as at least 5 feet below ground surface.
- Evaluate the potential of the identified geologic units to contain significant fossils (paleontological sensitivity).
- Identify impacts on paleontologically sensitive geologic units as a result of near-term and longer-term construction and operation that involve ground disturbance.
- Evaluate impact significance.

The paleontological sensitivity of the geologic units identified in the study area is classified according to four categories: SVP defines the level of potential as one of four sensitivity categories for sedimentary rocks: High, Undetermined, Low, and No Potential.[45]

- **High Potential.** Assigned to geologic units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered; and sedimentary rock units suitable for the preservation of fossils ("middle Holocene and older, fine-grained fluvial sandstones…fine-grained marine sandstones, etc."). Paleontological potential consists of the potential for yielding abundant fossils, a few significant fossils, or "recovered evidence for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data."
- **Undetermined Potential.** Assigned to geologic units "for which little information is available concerning their paleontological content, geologic age, and depositional environment." In cases where no subsurface data already exist, paleontological potential can sometimes be assessed by subsurface site investigations.
- **Low Potential.** Field surveys or paleontological research may allow determination that a geologic unit has low potential for yielding significant fossils (e.g., basalt flows). Mitigation is generally not required to protect fossils.
- **No Potential.** Some geologic units have no potential to contain significant paleontological resources, such as high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Mitigation is not required.

[44] Ibid.

[45] Ibid.

Geologic units at the project site were identified through California Geological Survey regional maps.[46] Determination of presence of paleontological resources in the units was based on the fossil record as documented by the University of California Museum of Paleontology.[47] For the implementation phase, the Standard Guidelines states that evaluation must identify impacts on significant paleontological resources and formulate and implement measures to mitigate potential impacts relative to the paleontological sensitivity of the geologic units that would be disturbed.[48]

For the purposes of this analysis, an impact on paleontological resources was considered significant and to require mitigation if it would result in any of the following:

- Damage to or destruction of vertebrate paleontological resources.
- Damage to or destruction of any paleontological resource that:
  - Provides important information about evolutionary trends, including the development of biological communities;
  - Demonstrates unusual circumstances in the history of life;
  - Represents a rare taxon or a rare or unique occurrence;
  - Is in short supply and in danger of being destroyed or depleted;
  - Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
  - Provides information used to correlate strata for which it may be difficult to obtain other types of age dates.

RELEVANT PROPOSED GOALS AND POLICIES

The Proposed Plan contains the following goals and policies relevant to geology, soils, and seismicity.

Goal A: Protect life and property from natural and humanmade hazards.

> **Policy A.1:** Require that new development be sited and designed to minimize risks from seismic events, including fault rupture, liquefaction, and landslides.
>
> **Policy A.2:** For new development within seismic and geologic hazard zones, including existing landslide areas, areas of high and moderate risk of landslide (Map 14) and liquefaction (Map 15) risk as well as areas within 660 feet of an identified fault in the late or latest quaternary category (Map 12), require that project proponents submit geotechnical investigation reports prepared by qualified professionals and demon-stration that the project conforms to all mitigation measures recommended by the reports prior to City approval.

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[46] Wagner, Bortugno, & McJunkin, 1991.

[47] University of California Museum of Paleontology, 2021.

[48] Society of Vertebrate Paleontology, 2010.

Policy A.3: Require that buildings intended for human occupancy and critical facilities be set back a safe distance (as determined by a qualified geologist) from surface traces of active and potentially active faults. Potentially active faults should be treated the same as active faults until detailed geotechnical data is submitted demonstrating to the City's satisfaction that a fault is not active.

Policy A.4: Ensure that structures intended for human occupancy are designed and constructed to retain their structural integrity when subjected to seismic activity, in accordance with the California Building Code.

Policy A.5: Establish a program to inventory and evaluate earthquake hazards in existing buildings, especially buildings with unreinforced masonry (URME and explore measures to encourage building owners to upgrade and retrofit structures to render them seismically safe.

Policy A.6: Continue to regulate development on hillsides where average slope is greater than 15 percent.

Policy A.7: When creating new lots of record sloped areas of 25 percent or greater shall not count towards the minimum lot size.

Policy A.8: Prohibit new development on existing lots of record where average slope is 25 per-cent or greater. Minimal encroachment into 25 percent or greater slope may be permitted by the Planning Commission subject to a use permit if it is designed and located to minimize impacts to adjoining property and public right-of-way that could occur due to inadequate grading and drainage control, visual appearance, and removal of trees and vegetation. To permit such encroachment, the Planning Commission must find that the amount and location of 25 percent or greater slope area so severely restricts the development potential of the lot that prohibiting de-velopment on 25 percent or greater slope deprives such property of privileges en-joyed by other similar properties or is such a minor encroachment that an excep-tion to this prohibition is warranted.

Policy A.9: Minimize grading in hillside areas and require erosion prevention by revegetation or other acceptable methods.

Policy A.10: Permit grading operations only in areas scheduled for immediate construction or paving.

Policy A.11: In order to maximize soil and slope stability and erosion prevention, minimize excavation, grading, cutting, or filling during construction; require erosion pre-vention as a strategy in the planning and design of grading operations; and avoid or minimize removal of ground cover, vegetation, and canopies.

Policy A.12: Require an Erosion and Sediment Control Plan (ESCP) or a Stormwater Pollution Prevention Plan (SWPPP) as required by local, regional or state regulations.

Policy A.13: Require engineering geology or slope stabilization reports when the excavation and/or grading planned have the potential for slope instability or potential to cre-ate unstable slope or soil conditions.

IMPACTS

Impact 3.7-1 Implementation of the Proposed Plan would not expose residents, visitors, and employees, as well as public and private structures, to substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault; strong seismic ground shaking; seismically related ground failure, including liquefaction; or landslides. *(Less than Significant)*

Fault Rupture

For the Proposed Plan, a significant impact due to fault rupture could occur if new structures were constructed within a designated Alquist-Priolo Earthquake Fault Zone, or within an active or potentially active known fault. As discussed above, there are no Alquist-Priolo Fault zones in or near the Planning Area; however, several potentially active faults pass through the Planning Area, as displayed on Figure 3.7-2. The Navy Fault runs north-south directly through the center of the Planning Area crossing the intersection of Highway 1 and Highway 68. The Navy Fault Segments of the Sylvan Thrust run east, intersecting the Navy Fault south of the Planning Area and curving towards southwestern portion of the Planning Area. In addition, segments of the Del Rey Oaks section of the Chupines Fault run north south through the southeastern portion of the Planning Area. These faults are potentially active, but not known to be active at this time. In a seismically active area such as the Monterey Bay Area, there is a small chance that future faulting could occur in areas where no faults previously had been mapped. However, compliance with California Building Code regulations incorporated in the Monterey City Code and implementation of General Plan Safety Element policies would minimize the risk of loss or damage dure to fault rupture. California Building Code earthquake protection standards apply to all newly constructed structures as well as older pre-code buildings that need to be reinforced in order to lessen the impact of a severe seismic event. Additionally, Safety Element Policy a.2 requires the treatment of all land within 660 feet of an identified fault to be treated as having high seismic hazard until an acceptable geotechnical investigation indicates they should be treated otherwise, while Policy a.3 requires that buildings and structures be set back from active and potentially active faults. Therefore, compliance with existing regulations and continued implementation of Safety Element policies would reduce potential impacts from surface fault rupture to the maximum extent practicable. Thus, the Proposed Plan would have a less than significant impact with regards to adverse effects from fault rupture.

Ground Shaking

A significant impact due to ground shaking could occur if implementation of the Proposed Plan would permit construction in an area that would experience ground shaking, such that substantial damage or harm to buildings or people could result. Generally speaking, fault activity has the potential to result in ground shaking, which can be of varying intensity depending on the magnitude of the event, the epicenter distance, the response of geologic materials, and the design

and construction quality of structures. Ground shaking tends to be more severe in softer sediments such as alluvial deposits than in bedrock materials, because in alluvial deposits surface waves can be amplified causing a longer duration of ground shaking. Areas where bedrock is exposed or located at relatively shallow depth tend to experience surface waves from an earthquake as more of a sharp jolt, compared to other areas. The Planning Area's proximity to active local faults place it at risk for strong ground shaking. As discussed above under *Seismic Shaking*, the Planning Area could experience very strong (MM-VIII) to violent (MM-IX) seismic shaking if a moment magnitude (M_W) 7.4 earthquake were to occur along the San Andreas fault.

As discussed above, the Seismic Hazards Mapping Act regulates structures intended for human habitation in order to minimize damage due to seismic ground shaking. Additionally, development occurring under the Proposed Plan would be required to conform to the current seismic design provisions of the 2022 California Building Code, adopted and incorporated into the Monterey City Code. The California Building Code contains the latest seismic safety requirements to resist ground shaking through modern construction techniques, which are periodically updated to reflect the most recent seismic research. Compliance with existing regulations would reduce potential impacts from ground shaking to the maximum extent practicable. Thus, associated impacts would be less than significant.

Liquefaction

A significant impact due to liquefaction could occur if implementation of the Proposed Plan would result in construction in areas of elevated liquefaction risk such that substantial damage or harm to buildings or people could result. As discussed above under *Liquefaction*, and shown in Figure 3.7-3, the Planning Area includes areas of moderate and high liquefaction susceptibility, generally located adjacent to creeks and streams which drain to the Bay.

Potential impacts from ground failure resulting from liquefaction would be addressed through site-specific geotechnical studies prepared in accordance with California Building Code requirements as adopted in Chapter 9, Article 1 of the City Code and standard industry practices. Chapter 18 of the CBC regulates the preparation of a preliminary soil report, engineering geologic report, geotechnical report, and supplemental ground-response report. As described in Chapter 18, Seismic Design Category C requires analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading. Categories D, E, and F require additional analyses as well as mitigation measures to be considered in structural design. While seismic hazards cannot be eliminated completely, adherence to the State and local regulatory requirements would minimize potential exposure of people and new structures to seismic hazard by requiring incorporation of hazard mitigation measures into project design. Therefore, impacts due to liquefaction are less than significant.

Landslides

Implementation of the Proposed Plan could have a significant impact due to landslides if new development were to be located in areas with high landslide risk such that substantial damage or harm to buildings or people could result. Landslides may occur on slopes of 15 percent or less; however, the probability is greater on steeper slopes that exhibit old landslide features such as steep slopes or banks, slanted vegetation, and transverse ridges. Landslide-susceptible areas are

characterized by steep slopes and downslope creep of surface materials. As discussed above under *Landslides*, landslide susceptibility in the Planning Area ranges from low to high as shown in Figure 3.7-4. There is moderate and high landslide hazard in the vicinity of the southeastern and southern boundary of the Planning Area. There are also a few small areas of moderate landslide susceptibility in the central portion of the Planning Area, near Skyline Drive, Glenwood Circle, and Santa Catalina School. While most of the Planning Area is in an area of low landslide susceptibility, there are some sites identified for development that experience moderate landslide risk.

Development on these sites and in areas with slope stability hazards would be subject to the provisions of the California Building Code, adopted and incorporated into the City Code, which regulate analysis of slope instability and requirements for drainage and grading. In addition, any project with soil disturbance of at least 500 square feet or 50 cubic yards would be required to submit an Erosion and Sediment Control Plan (ESCP), which would be subject to review and approval by the City. The ESCP would need to meet City standards of including erosion control best management practices (BMPs) such as avoidance of land-disturbing activities during the wet weather season, protection of existing vegetation, use of slope and slope stabilization BMPs, and containment of construction waste onsite. Compliance with Construction General Permit, Monterey City Code (Chapter 31.5, Article 2) requirements, and submission of ESCP would ensure that BMPs would be implemented to control soil erosion and landslide risk.

Compliance with these NPDES and local City Code regulations would reduce impacts related to landslides. Associated impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.7-2 Implementation of the Proposed Plan would not result in substantial soil erosion or the loss of topsoil. *(Less than Significant)*

Topsoil refers to the uppermost layer of soil, which have the highest concentration of organic matter, and where most biological soil activity occurs. Implementation of the Proposed Plan could have a significant impact due to soil erosion or loss of topsoil if associated construction and development activities could expose soils to the effects of erosion, which could hinder proper drainage and stormwater management. Erosion control, particularly during grading, is necessary to avoid downstream sedimentation and flooding. Once disturbed, through the removal of vegetation, asphalt, or an entire structure, exposed and stockpiled soils could be affected by wind and water. As discussed above under *Soil Erosion*, the Planning Area is located on Narlon soils predominantly in the western, gently sloping areas, as well as the steeper hillside areas, which pose a moderate to high erosion potential. Baywood soils found mainly in the central, gently sloping portions of the Planning Area pose a slight to moderate erosion potential. Depending on the slopes of Sheridan soils, found also in the western hilly portions of the Planning Area, erosion potential is slight to high. Dune land, located just on the margin of Monterey Bay area poses the most severe erosion risk.

Any project with soil disturbance of at least 500 square feet or 50 cubic yards would be required to submit an Erosion and Sediment Control (ESCP), which would be subject to review and approval

by the City. The ESCP would need to meet City standards of including erosion control best management practices (BMPs) such as avoidance of land-disturbing activities during the wet weather season, protection of existing vegetation, use of slope and slope stabilization BMPs, and containment of construction waste on-site. Individual projects disturbing more than one acre of ground would be required to obtain coverage under the State Construction General Permit, which requires preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP); the SWPPP also must include BMPs to control contamination of surface flows and potential discharge of pollutants from commencement of construction through project completion. Compliance with Construction General Permit, Monterey City Code (Chapter 31.5, Article 2) requirements, and submission of ESCP would ensure that BMPs would be implemented to control soil erosion and sedimentation and restrict non-stormwater discharges from construction sites as well as any release of hazardous materials. As a performance standard, the selected BMPs would represent the best available, economically achievable technology and the best conventional pollutant control technology.

Additionally, continued implementation of General Plan Conservation Element policies would further help to minimize potential impacts. Conservation Element Policy b.2 requires regular street sweeping on City streets to control sedimentation and stormwater flows that could cause erosion. Conservation Element Policy b.3 would minimize development on or removal of vegetation from areas particularly susceptible to erosion, such as steep slopes, and require actions to minimize erosion when development occurs in these areas. Accordingly, compliance with applicable codes and regulations and continued implementation of General Plan policies would ensure that the risk of substantial soil erosion or topsoil loss resulting from implementation of the Proposed Plan will be less than significant.

Mitigation Measures

None required.

Impact 3.7-3 Implementation of the Proposed Plan would not locate structures on expansive soils or on a geologic unit or soil that is unstable, or that would become unstable as a result of new development under the Proposed Plan, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse, or create substantial risks to life or property. (*Less than Significant*)

Liquefaction and landslide hazards associated with implementation of the Proposed Plan are examined under Impact 3.7-1, while potential impacts related to expansive soils are discussed below under Impact 3.7-3. Development associated with the implementation of the Proposed Plan could be located on a geologic unit or soils that are susceptible to lateral spreading. As discussed above under *Lateral Spreading*, the factors determining the potential for lateral spreading are liquefiable soils and the proximity to an open face or slope. As shown in Figure 3.7-3, locations within the Planning Area that have high liquefaction susceptibility have the highest risk of lateral spreading. The southeastern portion of the Planning Area, along the Highway 68 corridor and within the 50-acre MPUSD site, are underlain by liquefiable soils. The areas around El Estero Lake and Del Monte Lake provide an open face for lateral spreading. However, these open faces are located some

distance from opportunity areas and therefore, while both these areas pose some risk of lateral spreading, it is not expected to be a significant risk.

Development associated with the implementation of the Proposed Plan could be located on soils that pose a low risk of subsidence. As discussed above under *Subsidence*, the withdrawal of groundwater, oil, or natural gas can cause land to displace vertically. However, the USGS California Water Science Center does not identify the City of Monterey as an area that has experienced subsidence, and none of the projects which could be constructed under the Proposed Plan would withdraw groundwater, oil, or natural gas in a quantity great enough to result in subsidence.[49] Therefore, subsidence is unlikely to result from construction created under the Proposed Plan. The City Code requires that a detailed soil and geological investigation report be prepared at the filing of a tentative map for every subdivision (Article 5). Chapter 9, Article 1 of the Monterey City Code also establishes administrative procedures, minimum standards of review, and implementation and enforcement procedures for ensuring stable soil conditions. Compliance with existing regulations would ensure that impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.7-4 Implementation of the Proposed Plan would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property. *(Less than Significant)*

A significant impact could occur if new development under the Proposed Plan would locate structures in areas on top of expansive soil that would create substantial risk to life or property. As described above, expansive soils, which swell and shrink as they gain and lose moisture and can result in damage to overlying structures, underly the majority of the western portion of Monterey, a small area in the southeastern portion of the Planning Area, and a few areas surrounding the Monterey Regional Airport. Section 33-81(e) of the Monterey City Code requires the preparation of a geologic soils report prepared by a civil engineer who is registered by the State unless the City has knowledge as to the soil qualities of the soil of the subdivision or lot. Based on that report or prior knowledge of soil conditions, if presence of critically expansive soils or other soil problems which, if not corrected, would lead to structural defects is determined, a site-specific soils investigation which recommends corrective action to prevent structural damage to each dwelling proposed to be constructed on the expansive soil is required. Therefore, compliance with existing regulations would ensure that expansive soil-related impacts would be less than significant.

Mitigation Measures

None required.

[49] USGS. n.d. Areas of Land Subsidence. Available: https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html. Accessed: October 26, 2023.

Impact 3.7-5 Implementation of the Proposed Plan would not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. *(Less than Significant)*

A significant impact could occur if new development under the Proposed Plan would locate structures in areas without connection to the City's sanitary sewer system and on soils incapable of adequately supporting the use of septic tanks. The City Code (Chapter 30-1.1) requires that every building be connected to the public sewer system maintained by the sanitary district. In the event that the use of septic tanks is permitted during development under the Proposed Plan, compliance with all requirements outlined in Chapter 30, Article 1, of the City Code would be required. As a result, related impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.7-6 Implementation of the Proposed Plan would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (*Less than Significant with Mitigation Incorporated*)

The geologic units exposed at and below ground surface in the Planning Area are composed primarily of Holocene Older Dune Sand and Dune Sand, with Pleistocene Aromas Sand lying further inland. These units are known to have yielded scientifically important fossils. Based on Society of Vertebrate Paleontology (SVP) methods described under *Methodology and Assumptions* above, this geologic unit is considered to have high paleontological sensitivity. Because paleontological resources are located below ground surface, ground disturbing activities such as excavating, grading, and resurfacing could affect any paleontological resources present, including destruction of the resource.

A significant impact would occur if implementation of the Proposed Plan would directly or indirectly destroy a unique paleontological resource or site or unique geological feature. Construction enabled by the Proposed Plan would involve ground-disturbing activities that could extend into paleontologically sensitive geologic units. Therefore, construction enabled by the Proposed Plan would disturb a geologic unit with high paleontological sensitivity and accordingly has potential to destroy unique paleontological resources. In addition, any operations or maintenance activities that would involve ground disturbance also has potential to destroy unique paleontological resources. The potential for destruction of unique paleontological resources is considered a significant impact. To further address potential impacts to paleontological resources, any project applicant pursuing construction under the Proposed Plan would be required to adhere to Public Resources Code Section 5097.5, which prohibits the willful excavation, removal, destruction, injury, or defacing of any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site. Any project applicant pursuing construction under the Proposed Plan would also be required to implement **Mitigation Measures GEO-1 and GEO-2**, which require training to construction staff regarding paleontological resources and which establish protocols to follow in the event of the discovery of an unidentified paleontological resource, respectively.

Through the conformance to Public Resources Code Section 5097.5 and adherence to **Mitigation Measures GEO-1 and GEO-2**, the impact would be less than significant.

Mitigation Measures

MM-GEO-1: **Worker Awareness Training.** Prior to commencing construction, and ongoing throughout ground-disturbing activities (e.g., excavation, utility installation, the applicants proposing development of projects within the Planning Area and/or their designee shall ensure that all project construction workers are trained on the contents of a paleontological resources alert sheet, as provided by the department. The paleontological resources alert sheet shall be prominently displayed at the construction site during ground-disturbing activities for reference regarding potential paleontological resources. In addition, the project applicant shall inform the contractor and construction personnel of the immediate stop work procedures and other procedures to be followed if bones or other potential fossils are unearthed at the project site. Should new workers who will be involved in ground-disturbing construction activities begin employment after the initial training has occurred, the construction supervisor shall ensure that they receive the worker awareness training as described above.

The applicant shall complete a standard form/affidavit confirming the timing of the worker awareness training to the City. The affidavit shall confirm the project's location, the date of training, the location of the informational handout display, and the number of participants. The affidavit shall be transmitted to the City within five business days of conducting the training.

MM GEO-2: **Halt Construction, Maintenance, or Landscaping Activity in Case of Finding Paleontological Resources, Evaluate Find, and Excavate Find.** In the event that previously unidentified paleontological resources are uncovered during site preparation, excavation, or other ground-disturbing activity, applicants proposing development of projects within the Planning Area shall cease all such activity within 25 feet of the discovery or ensure that all such activity within 25 feet of the discovery ceases until the resources have been evaluated by a qualified professional and specific measures can be implemented to protect these resources in accordance with Public Resources Code Section 5097.5. If the qualified paleontologist determines the find is potentially significant, the project applicant shall ensure a qualified paleontologist shall excavate the find in compliance with state law, document the find, and arrange for curation at a depository, keeping project delays to a minimum. If the qualified paleontologist determines the find is not significant, then the project will continue without delay.

Significance after mitigation: Less than significant

3.8 Hazards and Hazardous Materials

This section assesses potential environmental impacts from future development under the Proposed Plan related to hazards and hazardous materials, including those associated with the transport, use, or disposal of hazardous materials; hazardous materials use in the vicinity of a school; upset conditions involving established hazardous materials sites; airport hazards; and emergency planning. This section provides context regarding hazardous materials, airport hazards, and emergency management in the Planning Area as well as relevant federal, state, and local regulations and programs.

There was one response to the Notice of Preparation (NOP) regarding topics covered in this section. The organization LandWatch recommended the City address site contamination by hazardous materials in the Fort Ord sites. This response is addressed in this section and incorporated into the following analysis.

Environmental Setting

PHYSICAL SETTING

Hazardous Materials

A hazardous material is any substance that, because of its quantity, concentration, or physical or chemical properties, may pose a hazard to human health or the environment. Under California Code of Regulations (CCR) Title 22, the term "hazardous substance" refers to both hazardous materials and hazardous wastes. Both of these are classified according to four properties: (1) toxicity, (2) ignitability, (3) corrosivity, and (4) reactivity (CCR Title 22, Chapter 11, and Article 3). A hazardous material is defined in CCR Title 22 as:

> [a] substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed (CCR Title 22 Section 66260.10).

Hazardous materials in various forms can result in death, serious injury, long-lasting health effects, or damage to buildings, homes, and other property. Hazards to human health and the environment can occur during the production, storage, transportation, use, or disposal of hazardous materials. Hazardous materials are often released as a result of motor vehicle or equipment accidents,

underground or aboveground storage tank failure or because of chemical accidents during industrial use. Hazardous substances released into the environment have the potential to leach into soils, surface water, and groundwater. Hazardous materials are commonly used in commercial, agricultural and industrial applications.

Due to the nature of their use, residential and office uses typically do not pose significant hazardous material impacts. Hazardous materials are not typically handled in significant amounts and materials typically used for such activities as cleaning and maintenance typically do not present a risk to the community. Industrial and commercial land uses have a higher likelihood of hazardous materials impacts. Industrial land use can encompass a wide range of business operations that have the potential to create hazardous materials impacts. Industrial facilities store hazardous materials in underground storage tanks (USTs) and/or aboveground storage tanks, and in designated storage locations. Age and improper maintenance of storage tanks are common causes of soil and groundwater contamination. Improper handling and storage of hazardous material containers can lead to hazardous material emergency incidents.

Commercial locations can include vehicle repair sites, gasoline fueling stations, and dry-cleaning facilities. Like industrial facilities, some commercial sites store hazardous materials in storage tanks and in designated areas within the facility. Hazardous materials spills and leaks in vehicle repair and fueling locations can lead to hydrocarbon-impacted soil and groundwater. Improper storage and use of hazardous materials in dry cleaning facilities can lead to volatile organic solvent-contaminated soil and groundwater.

Hazardous Materials Transport

Within the Planning Area, hazardous materials may be transported by vehicle along roadways or through transmission lines such as pipelines. Major transportation routes include State Highway 1, State Highway 68, Del Monte Avenue, Munras Avenue, and Lighthouse Avenue. According to the US Department of Transportation's (US DOT) National Pipeline Mapping System, natural gas pipelines bisect portions of the Planning Area along State Highway 1 near Community Hospital of Monterey Peninsula, along Munras Avenue followed into Fremont Street, Highway 68, and Del Monte Avenue.[1]

Hazardous Materials Sites

Sites where hazardous chemical compounds have been released into the environment can pose threats to human and ecologic systems' health. Both historic and current activities may result in the release, leak, or disposal of toxic substances on or below the ground surface, where they can then contaminate soil and ground water. Disturbance of the ground through grading or excavation can result in exposure of these chemicals to the public. Improper handling of contaminated sites may result in further exposure via airborne dust, surface water runoff, or vapors.

[1] US Department of Transportation. National Pipeline Mapping System. Available: https://pvnpms.phmsa.dot.gov/PublicViewer/. Accessed: December 7, 2023.

The Monterey County Environmental Health Bureau is the Certified Unified Program Agency (CUPA)[2] that implements hazardous materials and hazardous wastes regulations in the city through six programs: Hazardous Materials Business Plans (HMBP), Hazardous Waste Generator (HW), On-site Hazardous Waste Treatment (Tiered Permitting), Underground Storage Tank (UST), California Accidental Release Prevention (CalARP), and Aboveground Petroleum Storage. State agencies document and regulate potentially hazardous sites. The provisions in Government Code Section 659.62.5, enacted in 1985, are commonly referred to as the Cortese List.[3] A site's presence on the list has bearing on the local permitting process as well as on compliance with the California Environmental Quality Act. One site, the Owl Cleaners, listed in Table 3.8-1: Contaminated Sites within the Planning Area, is considered a Cortese List site. Those requesting a copy of the Cortese list are now referred directly to the appropriate information resources contained on the Internet websites of the boards or departments that are referenced in the statute, including the State Water Resources Control Board (SWRCB), Department of Toxic Substances Control (DTSC), and State Department of Health Services (DHS).

The Central Coast Regional Water Quality Control Board regulates cleanup activities at Leaking Underground Storage Tank (LUST) sites. LUST sites are those undergoing cleanup due to an unauthorized release from an underground storage tank (UST) system. A UST System is a tank and any underground piping connected to the tank that has at least 10 percent of its combined volume underground. UST regulations apply to underground tanks and piping storing any type of hazardous substance, with some exemptions.

As part of Government Code Section 65962.5 requirements, the SWRCB also tracks the following types of sites:

- Solid waste disposal facilities from which there is a migration of hazardous waste and for which a California regional water quality control board has notified the DTSC.
- Cease and desist orders issued after January 1, 1986, and all cleanup or abatement orders issued after January 1, 1986, that concern the discharge of wastes that are hazardous materials.

The DTSC regulates hazardous waste generation and treatment, oversees cleanup of existing contamination, and promotes ways to reduce the amount hazardous waste generated. DTSC regulates hazardous waste in California primarily under the authority of the federal Resource Conservation and Recovery Act of 1976 the California Health and Safety Code and the California

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[2] County of Monterey Health Department. CUPA Programs – Environmental Health. Available: https://www.co.monterey.ca.us/government/departments-a-h/health/environmental-health/hazardous-materials-management/cupa-programs. Accessed: December 7, 2023.

[3] The following resources include facilities meeting "Cortese List" requirements:
- List of Hazardous Waste and Substances sites from DTSC's EnviroStor database
- List of Leaking Underground Storage Tank Sites from SWRCB's GeoTracker database
- List of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels.
- List of "active" Cease and Desist Orders and Cleanup and Abatement Orders from SWRCB.
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC.

Code of Regulations. Hazardous waste requirements cover handling, storage, transportation, disposal, treatment, source reduction, cleanup, and emergency planning.

The Planning Area includes 16 hazardous materials sites (under oversight of the Central Coast Regional Water Quality Control Board (CCRWQCB) and the DTSC), as shown in Figure 3.8-1 and detailed in Table 3.8-1. The one Cortese List site is also shown in Figure 3.8-1 and listed in Table 3.8-1. Some of the sites listed have received closure by the applicable oversight agency and may not represent substantial hazardous materials exposure risks, while some may represent potential threats to groundwater and/or constraints to development. Table 3.8-1 lists site name and address, along with the database it was identified in and a summary of the site status. Additionally, there are two federal Superfund sites in the vicinity of the Planning Area, but not located within the City of Monterey: a site located at Fort Ord York School and another at Fort Ord Del Rey Oak Development. The information found in Table 3.8-1 is dynamic and with time a site's status can change, new sites can appear, etc. The listed sites were sites found within the Planning Area at the time this document was prepared.

Fort Ord Superfund Sites

Fort Ord served primarily as a United States Army training and staging facility for infantry troops from 1917 until it closed in 1994.[4] The former Army base covers approximately 28,000 acres between the Monterey Bay and the greater Salinas River Valley, bounded Monterey Bay to the west, the City of Sand City, Seaside, and Del Rey Oaks to the southwest, Highway 68 to the southeast, and native landscapes of the upper elevations to the north. Approximately 18,000 acres will be preserved as permanent open space under the jurisdictions of the Federal Bureau of Land Management and California Department of Parks and Recreation.[5] The remaining 10,000 acres are under now under the jurisdictions of Monterey County, the cities of Monterey, Seaside, Del Rey Oaks, and Marina, two universities, and the United States Army, who share the responsibilities of fulfilling the vision of the Fort Ord Base Reuse Plan (BRP).

The former Fort Ord was listed as a "Superfund" National Priorities List of Hazardous Waste Sites in 1990. 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, and ordnance and explosives (OE), including unexploded ordnance (UXO). The identification, remediation, and disposal of hazardous waste associated with the Superfund cleanup process of Fort Ord takes place under the Federal Facilities Agreement (FFA). The Army is responsible for conducting the Superfund cleanup process, and Environmental Protection Agency (EPA) is the lead agency for regulatory enforcement and oversight of Superfund activities. The Army is also required to submit findings to the California EPA. 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 BRP unless that use is in conflict with other statutes, regulations, and commitments.

[4] United States Army Fort Ord Cleanup. 2023. Fort Ord and BRAC History. Available: https://fortordcleanup.com/about/fort-ord-and-brac-history/. Accessed: December 14, 2023.

[5] City of Monterey. 2023. Fort Ord Property Development. Available: https://monterey.org/city_hall/community_development/planning/planning_projects/fort_ord_property_development.php. Accessed: December 14, 2023.

Figure 3.8-1: Hazardous Materials Sites

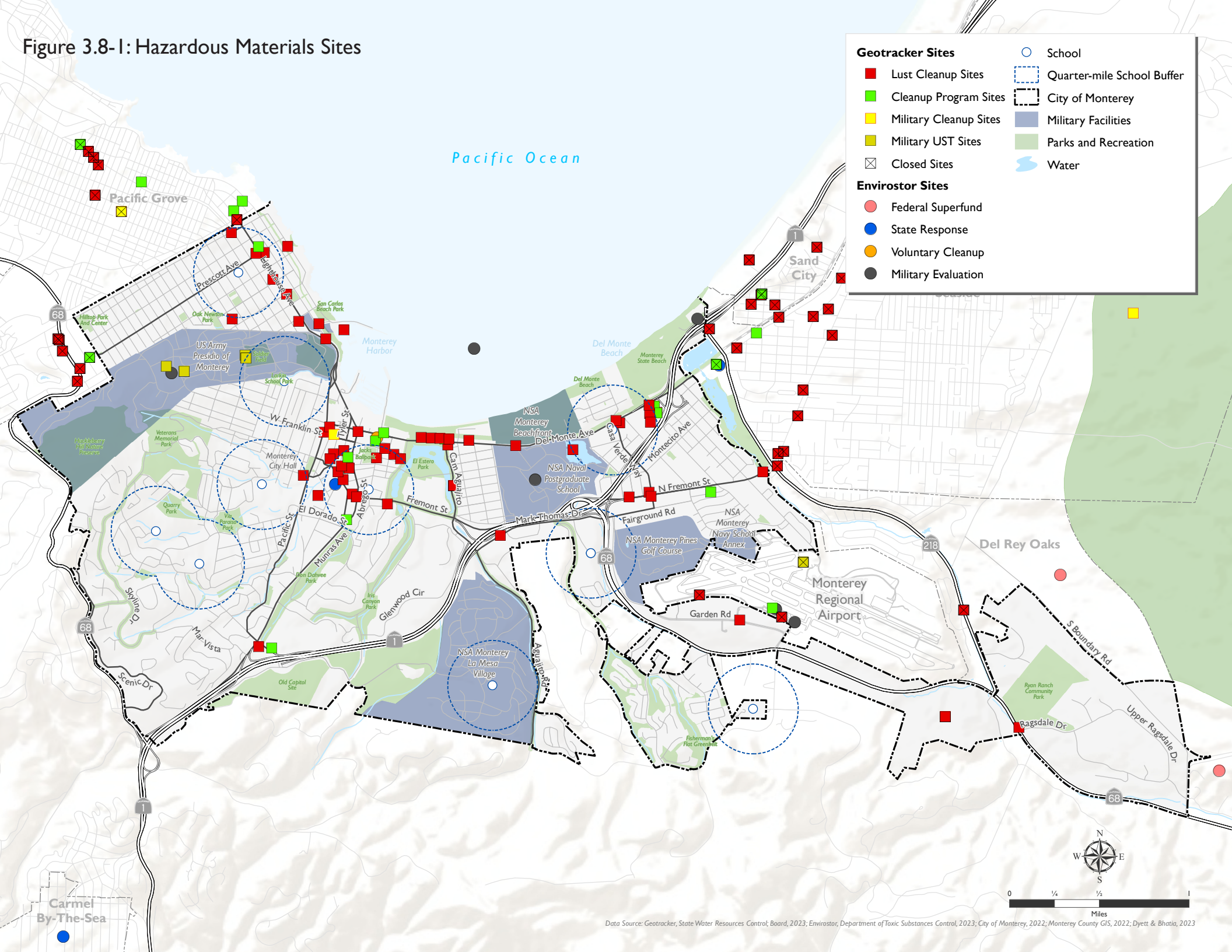


Table 3.8-1. Contaminated Sites in the Vicinity of Planning Area

Site Name	*Address*	*Type*	*Description and Site Status*
Geotracker Sites			
191 Lighthouse Ave	191 Lighthouse Ave	LUST Cleanup Site	Completed - Case Closed
7-Eleven Store #16747	1212 Fremont	LUST Cleanup Site	Completed - Case Closed
A-1 Rents	2330 Del Monte Ave	LUST Cleanup Site	Completed - Case Closed
Abandoned Warehouse	425 Elder St	LUST Cleanup Site	Completed - Case Closed
Alliance Mart	2109 Fremont St	LUST Cleanup Site	Completed - Case Closed
American Tin Cannery Redevelopment Project	*125 Ocean View Boulevard*	*Cleanup Program Site*	*Open - Site Assessment*
Anderson Prop (Scandia Volvo)	1661 Del Monte Blvd	LUST Cleanup Site	Completed - Case Closed
Arco #0365	400 Fremont St	LUST Cleanup Site	Completed - Case Closed
Avis Rent A Car System Inc	Monterey Airport	LUST Cleanup Site	Completed - Case Closed
Beacon Service Station	700 Lighthouse Ave	LUST Cleanup Site	Completed - Case Closed
Bianchi Site	600 Franklin St E	LUST Cleanup Site	Completed - Case Closed
BP #11166 (Former)	401 Fremont St	LUST Cleanup Site	Completed - Case Closed
BP #11168 (Former)	312 Del Monte Ave	LUST Cleanup Site	Completed - Case Closed
Breakwater Cove Marina	32 Cannery Row	LUST Cleanup Site	Completed - Case Closed
British Motors	735 Del Monte Ave	LUST Cleanup Site	Completed - Case Closed
California Bank Trust	439 Alvarado St.	LUST Cleanup Site	Completed - Case Closed
Cannery Row	653 Cannery Row	LUST Cleanup Site	Completed - Case Closed
Chevron Bulk Plant 0706 (Former)	205 Ramona Ave	Cleanup Program Site	Completed - Case Closed
Chevron Service #91060	351 Fremont St	LUST Cleanup Site	Completed - Case Closed
City Of Monterey	851 Del Monte Ave	LUST Cleanup Site	Completed - Case Closed
Cochran Autoshop Site	417 Figueroa St	LUST Cleanup Site	Completed - Case Closed
Corner Store	398 Lighthouse Ave	LUST Cleanup Site	Completed - Case Closed
Corral De Tierra Service	Hwy 68	LUST Cleanup Site	Completed - Case Closed
Country Club Cleaners	*2242 N. Fremont Street*	*Cleanup Program Site*	*Open - Site Assessment*
Couroc	1725 Contra Costa	LUST Cleanup Site	Completed - Case Closed
Couroc Property	1725 Contra Costa St	Cleanup Program Site	Completed - Case Closed
Dana Property	501 Lighthouse Ave	LUST Cleanup Site	Completed - Case Closed

Site Name	*Address*	*Type*	*Description and Site Status*
Days Inn	1440 Del Monte Blvd	Cleanup Program Site	Completed - Case Closed
Del Monte Aviation	100 Sky Park Drive	LUST Cleanup Site	Completed - Case Closed
Del Monte Shopping Center	*1410 Del Monte Center*	*Cleanup Program Site*	*Open - Verification Monitoring*
Del Rey Car Wash	810 Canyon Del Rey	LUST Cleanup Site	Completed - Case Closed
Diaz Property	*1561, 1563, &1569 Del Monte Boulevard*	*Cleanup Program Site*	*Open - Site Assessment*
Dimaggio's Classic Cleaners	*124 Central Avenue*	*Cleanup Program Site*	*Open - Site Assessment*
Dougherty's Auto Paint	288 Pearl St (3)	LUST Cleanup Site	Completed - Case Closed
Dougherty's Auto Paint	288 Pearl St (2)	LUST Cleanup Site	Completed - Case Closed
El Estero Car Wash	590 Fremont St	LUST Cleanup Site	Completed - Case Closed
Former Alliance Gas	1201 Forest Ave	LUST Cleanup Site	Completed - Case Closed
Former Chevron #9-3887	1300 Mark Thomas Dr	LUST Cleanup Site	Completed - Case Closed
Former Exxon 7-0227	1042 Del Monte Ave	LUST Cleanup Site	Completed - Case Closed
Former Exxon 7-0228	595 Munras Avenue	LUST Cleanup Site	Completed - Case Closed
Former Furniture Mart	425 Pacific St	LUST Cleanup Site	Completed - Case Closed
Former Shell Station	1290 Del Monte Ave	LUST Cleanup Site	Completed - Case Closed
Former Sudden Service/Vapor Dry Cleaners	*951 Del Monte Avenue*	*Cleanup Program Site*	*Open – Remediation*
Former Tom's Monterey Auto Repair	*870 Abrego Street*	*Cleanup Program Site*	*Open - Site Assessment*
Fort Ord - Building 509 (Pom Annex)	Bldg 509 Fort Ord	Military UST Site	Completed - Case Closed
Fort Ord - Fort Ord - Site 39	*General Jim Moore Blvd.*	*Military Cleanup Site*	*Open – Remediation*
Fort Ord - Px Service Station (Pom Annex)	Bldg 4220 North-South Rd	Military UST Site	Completed - Case Closed
Goodyear	1224 Forest Ave	LUST Cleanup Site	Completed - Case Closed
Grove Laundry	*166 12th Street*	*Cleanup Program Site*	*Open - Inactive*
H & B Properties	2090 Fremont St N	LUST Cleanup Site	Completed - Case Closed
Honda Kawasaki Of Monterey	915 Del Monte Ave	LUST Cleanup Site	Completed - Case Closed
Honest Engines	553 Munras Ave	LUST Cleanup Site	Completed - Case Closed

Site Name	*Address*	*Type*	*Description and Site Status*
Kern Property	316 Prescott	Cleanup Program Site	Completed - Case Closed
Komatsu Property	1102 Fremont Blvd	LUST Cleanup Site	Completed - Case Closed
Love Chevrolet	3 Geary Plz	LUST Cleanup Site	Completed - Case Closed
Lower Del Monte Dunes (Former Texaco Bulk Terminal)	Del Monte Dune Site	Cleanup Program Site	Completed - Case Closed
Lower Dunes	205 Ramona Ave	LUST Cleanup Site	Completed - Case Closed
Luce Meats	1009 Del Monte Ave	LUST Cleanup Site	Completed - Case Closed
Market Place	435,484,501 Cannery Row	LUST Cleanup Site	Completed - Case Closed
Marriot Hotel	350 Calle Principal	LUST Cleanup Site	Completed - Case Closed
Mission Mortuary	450 Camino El Estero	LUST Cleanup Site	Completed - Case Closed
Mobil Service Station 10-422	1152 Forest Ave	LUST Cleanup Site	Completed - Case Closed
Monterey City Disposol Service	808 Tioga Rd	LUST Cleanup Site	Completed - Case Closed
Monterey County SPCA	Po Box 3058	LUST Cleanup Site	Completed - Case Closed
Monterey Fire Dept	351 Madison	LUST Cleanup Site	Completed - Case Closed
Monterey Naval Post Graduate School		Military Cleanup Site	Completed - Case Closed
Monterey Peninsula Airport	Olmstead Rd	Military UST Site	Completed - Case Closed
Monterey Peninsula Airport District	200 Fred Kane Road	LUST Cleanup Site	Completed - Case Closed
Monterey Peninsula College	980 Fremont St	LUST Cleanup Site	Completed - Case Closed
Monterey Peninsula Unified School	540 Canyon Del Rey	LUST Cleanup Site	Completed - Case Closed
Monterey Reg Water Pollution	Oceanview & Coral	LUST Cleanup Site	Completed - Case Closed
Monterey Regional Airport	*200 Fred Kane Drive*	*Cleanup Program Site*	*Open - Site Assessment*
Monterey Sand Co	625 Elder Street	LUST Cleanup Site	Completed - Case Closed
Mumford Property	1301 Fremont Blvd	LUST Cleanup Site	Completed - Case Closed
Nan's Mini Market	701 Lighthouse Ave	LUST Cleanup Site	Completed - Case Closed
Navy Exchange	Bldg 348 Naval Postgraduate School	LUST Cleanup Site	Completed - Case Closed

Site Name	*Address*	*Type*	*Description and Site Status*
One Hour Martinizing	*724 Lighthouse Avenue*	*Cleanup Program Site*	*Open – Remediation*
Pacific Bell Yard	234 Ramona Ave	LUST Cleanup Site	Completed - Case Closed
Pacific Gas & Electric	2311 Garden Rd	LUST Cleanup Site	Completed - Case Closed
Pacific Grove Apts.	1012 Pacific Grove Lane	Cleanup Program Site	Completed - Case Closed
Pacific Grove Fire Department	600 Pine Ave	LUST Cleanup Site	Completed - Case Closed
Pacific Grove Naval Reserve Center - Pacific Grove Naval Reserve Center		Military Cleanup Site	Completed - Case Closed
PG&E Former Monterey Manufactured Gas Plant	498 Del Monte Ave.	Cleanup Program Site	Completed - Case Closed
Phil's Exxon	2100 Del Monte Ave	LUST Cleanup Site	Completed - Case Closed
Presidio of Monterey - Aafes Gas Station Building 230	Bldg 230 Presidio of Monterey	Military UST Site	Completed - Case Closed
Presidio of Monterey - Building 270 (Tanks 1-5)	Bldg 270 Fitch & Private Bolio Rd	Military UST Site	Completed - Case Closed
Presidio of Monterey - Building 422	Bldg 422 Presidio of Monterey	Military UST Site	Completed - Case Closed
Presidio of Monterey - Building 610	Bldg 610 Presidio of Monterey	Military UST Site	Completed - Case Closed
Presidio of Monterey - Building 650	Bldg 650 Presidio of Monterey	Military UST Site	Completed - Case Closed
Presidio of Monterey - Building 650	Unknown	Military UST Site	Completed - Case Closed
Presidio of Monterey - B141	P.O. Box 5004	Military Cleanup Site	Completed - Case Closed
Presidio of Monterey - Presidio-Monterey	Bldg. 832 2nd Phase	Military UST Site	Completed - Case Closed
Property Of O'Neal	456 Pine St	LUST Cleanup Site	Completed - Case Closed
Quaestar Inc	2101 Del Monte Ave	LUST Cleanup Site	Completed - Case Closed
Recovery Center (Chomp)	576 Hartnell St	LUST Cleanup Site	Completed - Case Closed
Rod & Ros	1898 Fremont	LUST Cleanup Site	Completed - Case Closed
Russo's Marine Fueling Station	*Del Monte & Figueroa*	*Cleanup Program Site*	*Open. - Assessment & Interim Remedial Action.*

Site Name	*Address*	*Type*	*Description and Site Status*
Salinas River National Wildlife	Hwy 1 & Salinas River	LUST Cleanup Site	Completed - Case Closed
Salinas River Wildlife Refuge	South Side Of Salinas River	LUST Cleanup Site	Completed - Case Closed
San Carlos Beach	Cannery Row	LUST Cleanup Site	Completed - Case Closed
Sand City Pumping Station	1 Bay St	LUST Cleanup Site	Completed - Case Closed
Saucito Land Co.	474 Alvarado St	LUST Cleanup Site	Completed - Case Closed
Saucito Land Co.	Central & Eardley	LUST Cleanup Site	Completed - Case Closed
Shell	687 Lighthouse Ave	LUST Cleanup Site	Completed - Case Closed
Shell Oil #135140	5Th St & San Carlos	LUST Cleanup Site	Completed - Case Closed
Shell Service Station	1600 Canyon Del Rey	LUST Cleanup Site	Completed - Case Closed
Shell Service Station	1083 Fremont Blvd	LUST Cleanup Site	Completed - Case Closed
Sherwin-Williams Company	505 Tyler St	LUST Cleanup Site	Completed - Case Closed
The General Store	617 Lighthouse Ave	LUST Cleanup Site	Completed - Case Closed
Tosco (Former Unocal) # 4242	1140 Forest Ave	LUST Cleanup Site	Completed - Case Closed
Tosco - Facility #0424	398 Fremont St	LUST Cleanup Site	Completed - Case Closed
Tosco - Facility #5643	1401 Munras Ave	LUST Cleanup Site	Completed - Case Closed
Tosco - Faility #05432	899 Hawthorne St	LUST Cleanup Site	Completed - Case Closed
U.S. Coast Guard	100 Lighthouse Ave	LUST Cleanup Site	Completed - Case Closed
U.S. Naval Postgraduate School	Old Naval Air Facility	LUST Cleanup Site	Completed - Case Closed
Unknown	El Bosque	LUST Cleanup Site	Completed - Case Closed
Unknown	550 Franklin St E	LUST Cleanup Site	Completed - Case Closed
Unocal Service Station #3342	650 Lighthouse Ave	LUST Cleanup Site	Completed - Case Closed
Unocal Services Station #4242	1140 Forest Ave	LUST Cleanup Site	Completed - Case Closed
Unocal Station #3582	2045 Fremont St.	LUST Cleanup Site	Completed - Case Closed
Unocal Station #3660	1600 Fremont Blvd.	LUST Cleanup Site	Completed - Case Closed
Usa Gasoline Station #42	2338 Del Monte Ave	LUST Cleanup Site	Completed - Case Closed
Usda	Hwy 1 Pacific Valley	LUST Cleanup Site	Completed - Case Closed
Val Strough Honda	1 Heitzinger Plz	LUST Cleanup Site	Completed - Case Closed
Victory Toyota	5 Heitzinger Plz	LUST Cleanup Site	Completed - Case Closed

Site Name	*Address*	*Type*	*Description and Site Status*
Washington Mutual Bank-Monterey	468 Washington St	Cleanup Program Site	Completed - Case Closed. Listed with land use restrictions.
Wayside Garage	1532 Del Monte Blvd	LUST Cleanup Site	Completed - Case Closed
Z & S Auto Sales	1179 Del Monte Ave	LUST Cleanup Site	Completed - Case Closed
Envirostor Sites			
Embassy Suites Hotel	*1441 Canyon Del Rey Blvd*	*State Response*	*Certified O&M - Land Use Restrictions Only*
Fort Ord York School Agreement	*5 Miles N Of Monterey, Ca*	*Federal Superfund*	*Active*
Fort Ord-Del Rey Oaks Development	*Del Rey Oaks*	*Federal Superfund*	*Active*
Monterey Peninsula Airport	*200 Fred Kane Drive*	*Military Evaluation*	*Refer: RWQCB*
Naval Auxiliary Air Station, Monterey	200 Fred Kane Drive, Suite 200	Military Evaluation	No Further Action
Carmel Cleaners	*SWC of Junipero Street & 3rd Avenue*	*State Response*	*Active*
Pacific Grove Naval Reserve Center	Pacific Grove	Military Evaluation	No Further Action
Point Pinos Lighthouse	*98 Asilomar Avenue*	*State Response*	*Certified O&M - Land Use Restrictions Only*
Fort Ord Amb Training Area		*Military Evaluation*	*Inactive - Needs Evaluation*
Monterey Bay Sediments		*Military Evaluation*	*Inactive - Needs Evaluation*
Monterey Naval Postgraduate School	1 University Circle	Military Evaluation	Refer: RWQCB
Owl Cleaners	*153 Webster Street*	*State Response*	*Active*
PG&E, Monterey Station	*SWC of Figueroa Street & Del Monte Avenue*	*Voluntary Cleanup*	*Active*
Presidio of Monterey	*Lighthouse Ave. & Kit Carson Rd.*	*Military Evaluation*	*Refer: RWQCB*

Source: Geotracker, SWRCB, 2023; EnviroStor, DTSC, 2023

There are seven parcels located within the Planning Area on South Boundary Road, near Ryan Ranch Office Park, that were once a part of the former Fort Ord Army base. Five of the seven parcels are designated Mixed Use Neighborhood on the proposed General Plan Land Use map (Figure 2-4) and one is designated Parks, Recreation and Open Space. Additionally, three of the five Mixed Use Neighborhood parcels are identified as sites available for housing in the proposed Housing Element to help meet the City's RHNA obligations: APNs 031-191-016-000 (36.9 acres AKA: Army Corps Parcel E29b.3), 031-191-003-000 (32.8 acres AKA: Army Corps Parcel E29b.2), and 031-191-006-000 (24 acres AKA: Army Corps Parcel L4.1 and L4.2) for a total of 93.7 acres. None of the

parcels identified for housing in the Housing Element are in need of remediation or disposal of hazardous waste. The northernmost parcel within the City limit at Fort Ord APN 031-191-018-000 (22.47 acres AKA: Army Corps Parcel E29.1) that has been excluded as a site in the Housing Element is designated as Mixed Use Neighborhood on the General Plan Land Use Diagram and prior to redevelopment, State and local regulations would require remediation.

Aerially Deposited Lead

Aerially deposited lead is a common hazardous materials issue in urban areas. Soils adjacent to major roadways often contain elevated concentrations of lead. The lead deposition is the result of airborne particulates and surface water runoff associated with automobile tailpipe emissions prior to the time lead was phased out of vehicle fuels and from lead wheel weights. The DTSC *Statewide Agreement For Caltrans for Reuse of Aerially Deposited Lead-Contaminated Soils* suggest that lead is generally found within 30 feet of the edge of the pavement and within the top six inches of the soil. In some cases, the lead is as deep as two to three feet below the surface.[6]

Properties located adjacent to major roadways such as State Highway 1 and 68, Del Monte Avenue, and Munras Avenue may contain elevated concentrations of lead in exposed surface soils, which could pose a health hazard to construction workers and users of the properties. Exposure of construction workers or future site occupants to lead in soil could result in adverse health effects, depending on the duration and extent of exposure.

Hazardous Materials in Building Materials

Hazardous materials, such as lead and asbestos, may be found in building materials and disturbed during demolition and renovation activities associated with development or redevelopment. Lead compounds were commonly used in interior and exterior paints until they were banned in 1978. Prior to the 1980s, building materials often contained asbestos fibers, which were used to provide strength and fire resistance until they were banned. In addition, other common items present in buildings, such as electrical transformers, fluorescent lighting, electrical switches, heating/cooling equipment, caulking, and thermostats can contain hazardous materials, which may pose a health risk if not handled and disposed of properly.

Demolition of buildings has the potential to release lead particles, asbestos fibers, polychlorinated biphenyls (PCBs), and/or other hazardous materials to the ground or air where they may be inhaled or ingested by construction workers and the general public. Federal and State regulations govern the demolition of structures where lead or material containing lead is present. During demolition, lead-based paint that is securely adhering to wood or metal may be disposed of as demolition debris, which is a non-hazardous waste. Loose and peeling paint must be disposed of as a California and/or federal hazardous waste if the concentration of lead exceeds applicable waste thresholds. State and federal construction worker health and safety regulations require air monitoring and other protective measures during demolition activities where lead-based paint is present.

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[6] Department of Toxic Substances Control (DTSC). 2017. Statewide Agreement for Caltrans for Reuse of Aerially Deposited Lead-Contaminated Soils. Available: https://dtsc.ca.gov/wp-content/uploads/sites/31/2017/11/CaltransStatewide_FS_ADLAgreement_0316.pdf

Federal, State, and local requirements also govern the removal of asbestos or suspected asbestos-containing materials (ACMs), including the demolition of structures where asbestos is present. Under the Asbestos Program, the Monterey Bay Air Resources District (MBARD) requires that demolition projects obtain MBARD approval prior to issuance of local building permits for renovation and demolition projects. The Monterey Building and Safety Division enforces this requirement, which is intended to minimize the release of asbestos during demolition activities. Workers conducting asbestos abatement must be trained in accordance with State and federal Occupational Safety and Health Administration (OSHA) regulations. Fluorescent lighting tubes and ballasts, computer displays, and several other common items containing hazardous materials are regulated as "universal wastes" by the State of California. Universal waste regulations allow common, low-hazard wastes to be managed under less stringent requirements than other hazardous wastes. Management of some other special hazardous wastes is governed under the DTSC hazardous waste rules.

Schools

The Monterey Peninsula Unified School District (MPUSD) serves the City of Marina, Sand City, Seaside, and Del Rey Oaks, and the City of Monterey.[7] MPUSD consists of two preschools, three transitional kindergarten through 8th grade schools, seven elementary schools, two middle schools, three comprehensive high schools, and one continuation high school. The Planning Area is served by four MPUSD schools, as shown in Table 3.12-2. These schools include La Mesa Elementary School, Monte Vista Elementary School, Monterey High School, and Walter Colton Middle School.

There are three other private schools in Monterey: Trinity Christian High School (680 Belden Street), serving ninth through twelfth graders; Bay View Academy Lower and Upper Schools, (222 Casa Verde Way and 190 Seeno Street), serving kindergarten through eighth grade; and San Carlos School (450 Church Street), serving kindergarten through eighth grade. There is one charter school: Monterey Bay Charter School Foothill Campus (1700 Via Casoli), serving kindergarten through second grade. In addition, Monterey Peninsula College (MPC) is a public community college in Monterey (980 Fremont Street).

Airport Hazards

Risks associated with airport operations include those to people and property located in the vicinity of the airport in the event of an accident, and those to the safety of persons aboard an aircraft. The Monterey Regional Airport is located along Highway 68, near Garden Road, adjacent to the Planning Area nestled between opportunity areas North Fremont, Garden Road/Highway 68/Airport, and Fort Ord/Ryan Ranch. The Monterey County Airport Land Use Commission adopted an Airport Land Use Compatibility Plan Update for the Monterey Regional Airport in February 2019, which is intended to protect and promote the safety and welfare of residents near

[7] Monterey Peninsula Unified School District. 2023. About Us. Available: https://www.mpusd.net/apps/pages/index.jsp?uREC_ID=1019885&type=d&pREC_ID=1305113. Accessed: August 21, 2023.

the public use airports in the county, as well as airport users.[8] The Airport Safety Zones associated with runway activities and airport influence areas for the Monterey Regional Airport do overlap with the Planning Area, as shown on Figure 3.8-2. These Airport Safety Zones include 1. Runway Protection Zone (RPZ), 2. Inner Approach/Departure Zone (IADZ), 3. Inner Turning Zone (ITZ), 4. Outer Approach/Departure Zone (OADZ), 5. Sideline Safety Zone (SSZ), 6. Airport Property Zone (APZ), and 7. Airport Influence Area (AIA).

Emergency Management and Response

The Monterey Police Department (MPD) services the City of Monterey with emergency response services. MPD participates in the California State Mutual Aid System, which facilitates inter-jurisdictional police force collaboration for emergency services. Additionally, the Monterey Fire Department (MFD) provides fire services and fire protection for a service area that includes the City of Monterey, the U.S. Army Defense Language Institute Foreign Language Center at the Presidio of Monterey, the Naval Postgraduate School and their housing located at La Mesa Village, as well as the cities of Sand City, Carmel-by-the-Sea, Pacific Grove, and the Monterey Peninsula Airport.[9] The City participated in the update to the Monterey County Multi-Jurisdictional Hazard Mitigation Plan (MCMJHMP) in 2022, which was prepared by Monterey County Office of Emergency Services. MCMJHMP includes hazard risk assessments, countywide mitigation actions, and a plan maintenance strategy. In addition, the City maintains a network of evacuation routes designated in the 2005 General Plan Safety Element and the proposed Safety Element. These routes facilitate evacuation in the event of an emergency and are shown in Figure 3.15-3 Evacuation Routes in Draft EIR Section 3.15: Wildfire. The figure illustrates that primary access to Monterey is limited to two main transportation corridors (Highway 1 and Highway 68), which is a constraint to emergency evacuation capacity in the event of a major hazard event. The City of Monterey Emergency Operations Center (EOC) will be activated as needed to respond to storm or other emergency impacts as they arise.

Wildlands Fires

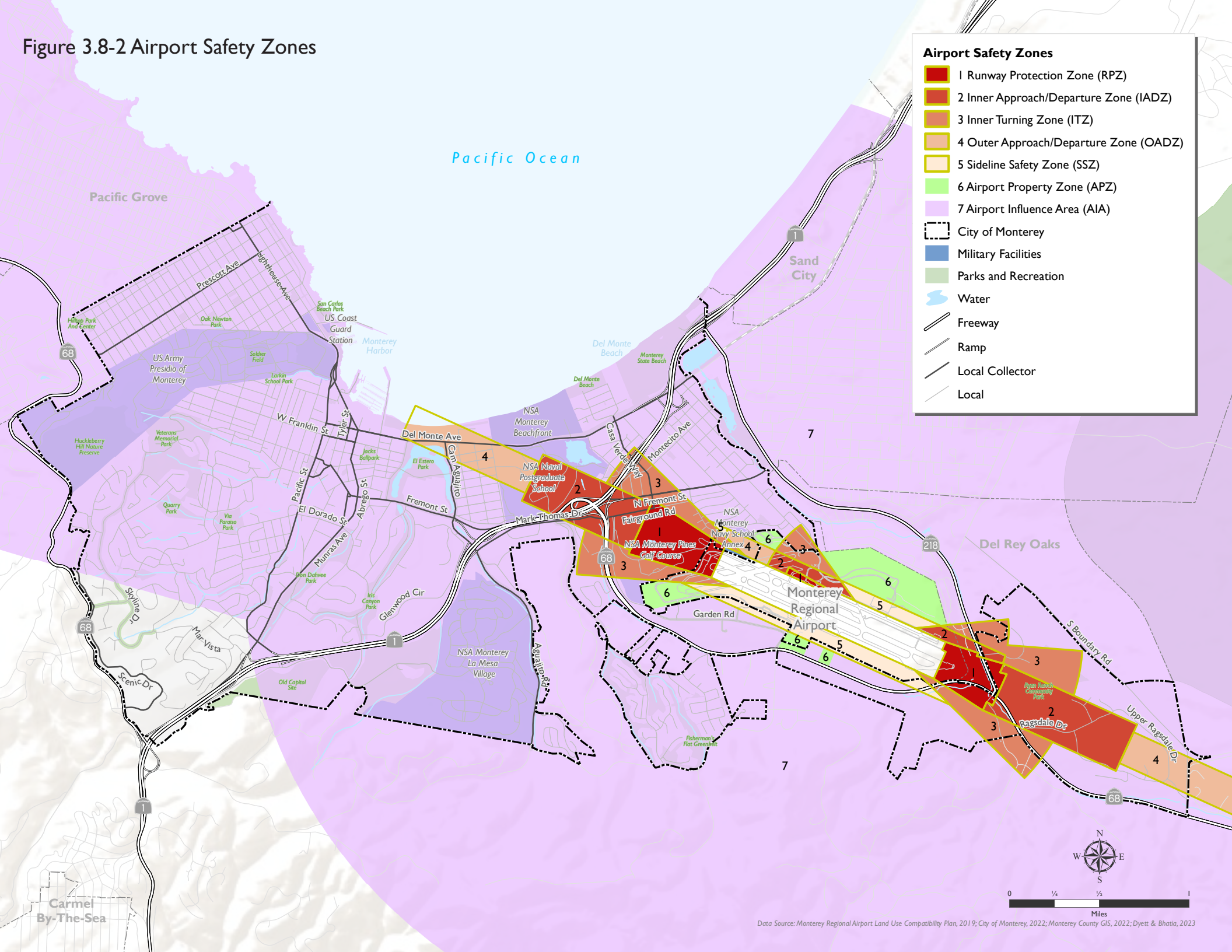
Government Code Sections 51175-89 advise the State of California, Department of Forestry and Fire Protection (CAL FIRE), to identify areas, or zones, of very high fire hazard severity potential under the Fire and Resources Assessment Program (FRAP). These zones are mapped and identified based on expected burn probabilities, potential fuels over a 30-to-50-year time period, and their correlated expected fire behavior, to better predict the possible vegetation fire exposure to buildings and developments. Under the FRAP, CAL FIRE categorizes upland areas in the south and southwest of the Planning Area as a Very High Fire Hazard Severity Zone. Just south of the City limits, a Very High Fire Hazard Severity Zone in a State Responsibility Area exists, as shown on Figure 3.15-2.

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[8] Monterey County Airport Land Use Commission, 2019. Airport Land Use Compatibility Plan. Avaliable: https://www.co.monterey.ca.us/home/showpublisheddocument/75251/638218188294130000. Accessed: December 11, 2023.

[9] City of Monterey. About (Fire). Available: https://monterey.org/city_hall/fire/about/index.php, Accessed: August 21, 2023.

Figure 3.8-2 Airport Safety Zones



REGULATORY SETTING

Hazardous materials and hazardous wastes are extensively regulated by federal, State, regional and local regulations, with the major objective of protecting public health and the environment. In general, these regulations provide definitions of hazardous substances; identify responsible parties; establish reporting requirements; set guidelines for handling, storage, transport, remediation, and disposal of hazardous materials and wastes; and require health and safety provisions for both workers and the public, such as emergency response and worker training programs. Sites which are subject to these regulations are identified on periodically updated published lists at the federal, state, and local levels; the regulated sites include underground storage tank (UST) locations. The major regulations relevant to the Proposed Plan are summarized in the following subsections.

Federal Regulations

Federal Toxic Substances Control Act/Resource Conservation and Recovery Act/Hazardous and Solid Waste Act

The federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act (RCRA) established a U.S. EPA-administered program to regulate the generation, transport, treatment, storage, and disposal of hazardous waste. The 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.

Comprehensive Environmental Response, Compensation, and Liability Act/Superfund Amendments and Reauthorization Act

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as "Superfund," was enacted by Congress on December 11, 1980. This law (42 United States Code 103) provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites, provides for liability of persons responsible for releases of hazardous waste at these sites, and establishes a trust fund to provide for cleanup when no responsible party can be identified. CERCLA also enabled the revision of the National Contingency Plan. This plan (Title 40, Code of Federal Regulations [CFR], Part 300) provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The National Contingency Plan also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

Occupational Safety and Health Administration

The Occupational Safety and Health Administration's (OSHA's) mission is to ensure the safety and health of American workers by setting and enforcing standards; providing training, outreach, and education; establishing partnerships; and encouraging continual improvement in workplace safety and health. OSHA establishes and enforces protective standards and reaches out to employers and employees through technical assistance and consultation programs. OSHA standards are listed in 29 CFR 1910.

Department of Transportation Hazardous Materials Regulations (49 CFR 100–185)

U.S. Department of Transportation Hazardous Materials regulations cover all aspects of hazardous materials packaging, handling, and transport. Some of the topics covered include Parts 107 (Hazard Materials Program), 130 (Oil Spill Prevention and Response), 172 (Emergency Response), 173 (Packaging Requirements), 174 (Rail Transportation), 176 (Vessel Transportation), 177 (Highway Transportation), 178 (Packaging Specifications), and 180 (Packaging Maintenance).

Emergency Planning and Community Right-To-Know Act

The Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 was included under SARA law and is commonly referred to as SARA Title III. EPCRA was passed in response to concerns regarding the environmental and safety hazards proposed by the storage and handling of toxic chemicals. EPCRA establishes requirements for federal, state, and local governments, tribes, and industry regarding emergency planning and Community Right-to-Know reporting on hazardous and toxic chemicals. SARA Title III requires states and local emergency planning groups to develop community emergency response plans for protection from a list of Extremely Hazardous Substances (40 CFR Appendix B). The Community Right-to-Know provisions help increase the public's knowledge of and access to information on chemicals at individual facilities, their uses, and their release into the environment. In Union City, the Environmental Programs Division/CUPA collects EPCRA Tier II data.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act (HMTA) of 1975 was created to provide adequate protection from the risks to life and property related to the transportation of hazardous materials in commerce by improving regulatory enforcement authority of the Secretary of Transportation.

State Regulations

California Environmental Protection Agency (CalEPA)

The California Environmental Protection Agency (CalEPA) was created in 1991. It unified California's environmental authority in a single cabinet-level agency and brought the California Air Resources Board, SWRCB, RWQCB, CalRecycle, DTSC, Office of Environmental Health Hazard Assessment, and Department of Pesticide Regulation under one agency. These agencies were placed under the Cal/EPA "umbrella" for the protection of human health and the environment to ensure the coordinated deployment of state resources. Their mission is to restore, protect, and enhance the environment and ensure public health, environmental quality, and economic vitality. CalEPA also manages the Unified Program and has certified the Union City Environmental Programs Division as the Certified Unified Program Agency (CUPA) to implement state hazardous materials requirements within the jurisdiction.

Accidental Release Prevention Law/California Accidental Release Prevention Program (CalARP)

SB 1889 established the merging of federal and State of California programs governing the accidental airborne release of chemicals listed under Section 112 of the Clean Air Act. Effective January 1, 1997,

CalARP replaced the previous California Risk Management and Prevention Program (RMPP) and incorporated the mandatory federal requirements. CalARP addresses facilities containing specified hazardous materials that, if involved in an accidental release, could result in adverse off-site consequences. CalARP defines regulated substances as chemicals that pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive. The Union City Environmental Programs Division/CUPA administers the CalARP program.

Hazardous Materials Worker Safety Requirements

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health (Cal OSHA) and the federal OSHA are the agencies responsible for ensuring worker safety in the workplace. Cal OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. In California, Cal OSHA assumes primary responsibility for developing and enforcing workplace safety regulations; Cal OSHA standards are generally more stringent than federal regulations.

California Labor Code (Division 5, Parts 1, 6, 7, and 7.5)

The California Labor Code is a collection of regulations that include regulation of the workplace to ensure appropriate training on the use and handling of hazardous materials and operation of equipment and machines that use hazardous materials. Division 5, Part 1, Chapter 2.5, ensures that employees who are in charge of handling hazardous materials are appropriately trained and informed with respect to the materials they handle. Division 5, Part 7, ensures that employees who work with volatile flammable liquids are outfitted with appropriate safety gear and clothing.

Department of Toxic Substances Control and Cortese List

DTSC, a department of Cal/EPA, is the primary agency in California for regulating hazardous waste, cleaning up existing contamination, and finding ways to reduce the amount of hazardous waste produced in California. DTSC regulates hazardous waste primarily under the authority of the federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Other laws that affect hazardous waste are specific to handling, storage, transport, disposal, treatment, reduction, cleanup, and emergency planning. California Government Code 65962.5 (commonly referred to as the Cortese List) includes DTSC-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by SWRCB as having UST leaks or a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites with a known migration of hazardous waste/material.

State of California Emergency Plan, 2017

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Response to hazardous material incidents is one part of this plan. The plan is managed by the California Emergency Management Agency, which coordinates the responses of other agencies, including CalEPA, the California Highway Patrol, California Department of Fish and Wildlife (CDFW), and RWQCB.

Office of Environmental Health Hazard Assessment

The State of California Office of Environmental Health Hazard Assessment (OEHHA) is the lead state agency for the assessment of health risks posed by environmental contaminants. The OEHHA implements provisions of the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). Proposition 65 requires the governor to publish, at least annually, a list of chemicals known to the state to cause cancer or reproductive toxicity. The proposition protects California citizens and the state's drinking water sources from chemicals known to cause cancer, birth defects, or other reproductive harm and informs the public about potential exposures to such chemicals.

California Department of Transportation

The California Department of Transportation (Caltrans) manages more than 50,000 miles of California's highway and freeway lanes, provides inter-city rail services, permits more than 400 public-use airports and special-use hospital heliports, and works with local agencies. Caltrans is also the first responder for hazardous material spills and releases that occur on highway and freeway lanes and inter-city rail services.

State Water Resources Control Board

The Porter-Cologne Water Quality Control Act of 1969 established the SWRCB and divided the state into nine regional basins, each with a RWQCB. The SWRCB is the primary state agency responsible for protecting the quality of the state's surface and groundwater supplies, while the regional boards are responsible for developing and enforcing water quality objectives and implementation plans. The Planning Area is within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board. The act authorizes the SWRCB to enact state policies regarding water quality in accordance with the U.S. EPA Clean Water Act (CWA) section 303. The SWRCB regulates the handling, storage, and disposal of hazardous substances in construction projects. Permits and/or other action by the SWRCB may be required if contamination of water or soils occurs during the construction associated with the Proposed Plan. In addition, the act authorizes the SWRCB to issue Waste Discharge Requirements (WDRs) for projects that would discharge to State waters.

California Public Resources Code Section 2115.4

Public Resources Code Section 21151.4 regulates hazardous materials near schools. Public Resources Code Section 21151.4 prohibits the certification of a Draft Environmental Impact Report (EIR) for a project involving the construction or alteration of a facility that might reasonably be anticipated to emit hazardous air emissions or handle extremely hazardous air emissions in a quantity greater than a certain threshold, within one-quarter mile of a school.

Local Regulations

CalEPA's Unified Program (CUPA)

In 1993, Senate Bill 1082 gave CalEPA the authority and responsibility to establish a unified hazardous waste and hazardous materials management and regulatory program, commonly referred to as the Unified Program. The purpose of this program is to consolidate and coordinate six different hazardous materials and hazardous waste programs, and to ensure that they are consistently implemented throughout the state. CalEPA oversees the Unified Program with support from the DTSC, SWRCB, the CalOES, and the Office of the State Fire Marshal. State law requires counties, and allows local agencies, to implement the Unified Program. The agency in charge of implementing the program is called the Certified Unified Program Agency or CUPA. Monterey County's Environmental Health Bureau is the designated CUPA for Monterey. As the Certified Unified Program Agency, the Environmental Programs Division administers the following Unified Programs:

- Hazardous Materials Release Response Plans and Inventory (Business Plan) Program
- California Accidental Release Prevention Program
- Underground Storage Tank Program
- Hazardous Waste Generator Program
- Hazardous Waste On-Site Treatment Programs
- Aboveground Petroleum Storage Act Program

Monterey County Environmental Health Bureau

Monterey County's Environmental Health Bureau, Hazardous Materials Management Services (HMMS) is designated as the local Certified Unified Program Agency (CUPA). This agency is responsible for inspecting facilities in the County to verify proper storage, handling and disposal of hazardous materials and hazardous wastes. The HMMS 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.

Monterey County Multi-Jurisdiction Hazard Mitigation Plan (HMP)

Jurisdictions in Monterey County have developed and maintained an (HMP) to reduce risks from natural disasters that complies with federal requirements for hazard mitigation planning. Participating jurisdictions include the Cities of Carmel-by-the-Sea, Del Rey Oaks, Gonzales, Greenfield, King City, Marina, Monterey, Pacific Grove, Salinas, Sand City, Seaside, Soledad, Monterey County Water Resources Agency (MCWRA), Carmel Area Wastewater District (CAWD), Monterey Regional Waste Management District (MRWMD), Monterey One Water (M1W), and Moss Landing Harbor District. During this planning project, local leaders, special districts, and the community have worked in tandem to identify risks, assess capabilities, and formulate a strategy to reduce disaster vulnerability. The HMP details the use of these policies,

programs, projects, and other activities to protect life and property by reducing the potential for future damages and economic losses from known hazards and to create a risk and vulnerability assessment that focuses on local hazards of concern.

Monterey County Emergency Operations Plan

The Monterey County Emergency Operations Plan (EOP), adopted in November 2020, addresses response and recovery efforts and discusses principles, concepts, and procedures that the Office of Emergency Services and its partners use during an emergency in the event of erosion, floods, tsunamis, dam failure, hazard materials, wildfires, earthquakes, landslides, and windstorms.

Monterey Regional Airport Land Use Compatibility Plan

The 2019 Monterey Regional Airport Land Use Compatibility Plan (ALUCP) is intended to protect and promote the safety and welfare of residents, businesses, and airport users near the airport, while supporting the continued operation of the airport. Much of the Planning Area is within Airport influence Area (AIA), as shown in Exhibit 1B of the Monterey Regional ALUCP. The Airport Safety Zones associated with runway activities and airport influence areas for the Monterey Regional Airport overlap with the Planning Area, as shown on Figure 3.8-3 of this document and Exhibit 4C of the ALUCP. These Airport Safety Zones include 1. Runway Protection Zone (RPZ), 2. Inner Approach/Departure Zone (IADZ), 3. Inner Turning Zone (ITZ), 4. Outer Approach/Departure Zone (OADZ), 5. Sideline Safety Zone (SSZ), 6. Airport Property Zone (APZ), and 7. Airport Influence Area (AIA). Pursuant to ALUCP Policy 4.1.10.1, all proposed land use policy actions that affect property within the AIA must be sent to the Airport Land Use Commission for a Consistency Determination. Additionally, Table 4B Safety Criteria Matrix of the ALUCP outlines the maximum densities, intensities, required open space land requirements, prohibited uses, and other development conditions for proposed development within the Airport Safety Zones.

Fort Ord Reuse Authority (FORA) Base Reuse Plan

Fort Ord Reuse Authority (FORA) adopted the Base Reuse Plan (BRP) in June 1997 and republished a digital format of the BRP in September 2001. The BRP focuses on the broad concepts for redevelopment of the former Fort Ord Military Reservation and issues related to integrating the former Fort Ord property into the regional economy of the Monterey Peninsula. The Reuse Plan Elements contains a set of integrated goals, objectives, policies, and programs for the land use jurisdictions: City of Seaside, City of Marina, City of Monterey, and Monterey County. Hazardous and Toxic Materials Safety Policy B-1 requires the City to work with the U.S. Army and all contractors to ensure safe and effective removal and disposal of hazardous materials. Additionally, the U.S. Army has led groundwater and munitions clean-up efforts with some munitions removal conducted and completed under FORA direction. Under the 1986 Defense Environmental Restoration Program, the Department of Defense is responsible for cleanup of former munitions sites. The U.S. Army conducted lead removal at the beach firing ranges, and FORA, California State University Monterey Bay, and others have conducted lead and asbestos removal from buildings. Discovered objects that resemble munitions or explosives on or near former Fort Ord property are to be reported to the US Army, US EPA, California Department of Toxic Substance Control (DTSC), and the Seaside Environmental Services Cooperative Agreement (ESCA) Program using the Fort Ord Munitions and Explosives of Concern (MEC) incident recording program.

Monterey City Code

Chapter 13, Article 2, Clean Up of Hazardous Substances, outlines definitions and clean-up responsibility for spills or release of any hazardous substances. Section 13-6 defines "hazardous substances or material" which include any material listed in Sections 66680 and 66685 of Title 22 of the California Administrative Code, Environmental Protection Agency (EPA) pollutants, 40 Code of Federal Regulations, and National Fire Protection Association (NFPA) as either a flammable liquid, a Class "II" combustible liquid or a Class "III-A" combustible liquid. Section 13-6.1 details that responsible parties should take all actions necessary to remedy the effects of any unauthorized discharge, spill, or release of any hazardous substances. The Monterey Fire Department will also mitigate, or authorize mitigation, of all hazardous material release incidents which endanger the public safety of the citizens of Monterey or which create a public nuisance.

Chapter 31.5, Article 2, Urban Storm Water Quality Management and Discharge Control, serves to protect and enhance the water quality of waters of the State and waters of the United States, and protect water bodies. Specifically, Section 31.5-21, Notification of Spills, requires any person responsible for a facility or operation that results in a release of a hazardous material must notify emergency response officials of the occurrence via emergency dispatch services, the City's department of Plans and Public Works, and the City's Engineering Division.

Chapter 38, Article 19, Hazardous Materials Storage, outlines regulations that are intended to ensure that the use, handling, storage, and transport of hazardous substances comply with all applicable requirements of the California Health and Safety Code. Chapter 38, Section 130, Hazardous Materials Release Response Plans, requires all businesses located in the City and required by Article 6.95 of the California Health and Safety Code to prepare hazardous materials release response plans. Chapter 38, Section 131, Underground Storage Tanks, requires underground storage of hazardous substances to comply with all applicable requirements of Article 6.7 of the California Health and Safety Code. This includes notifying Fire Chief and the Community Development Director of any unauthorized release of hazardous substances within 24 hours after the release has been detected and any proposed abandoning, closing or ceasing operations of an underground storage tank.

Chapter 38, Part IV, Regulations Applying in All Districts, outlines performance standards that apply to all use classifications in all zoning standards. Specifically, Section 38-111 includes performance standards for Radioactive Materials (F) and Hazardous and Extremely Hazardous Materials (G) that comply with the respective provisions of California Radiation Control Regulations (California Administrative Code, Title 17) and California Hazardous Materials Regulations (California Administrative Code, Title 22, Division 4).

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if the Proposed Plan would:

Criterion 1: **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;**

Criterion 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;**

Criterion 3: **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;**

Criterion 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, would create a significant hazard to the public or the environment;**

Criterion 5: **Be 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 uses airport, and would result in a safety hazard or excessive noise for people residing or working in the project area;**

Criterion 6: **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; (Please see Chapter 3.15, criterion 1) or**

Criterion 7: **Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.**

METHODOLOGY AND ASSUMPTIONS

This analysis considers the range and nature of foreseeable hazardous materials use, storage, and disposal resulting from implementation of the Proposed Plan, and identifies the primary ways that these hazardous materials could expose individuals or the environment to health and safety risks. The analysis included a qualitative evaluation of impacts associated with the potential presence of hazardous materials or hazards in the Planning Area, and an evaluation of the extent to which land use changes suggested within the Proposed Plan could enable the development of industrial uses that commonly employ or generate hazardous materials or waste in their production processes, as well as development in or around Very High Fire Hazard Severity Zones. This analysis is based on a review of materials ranging from the Envirostor and Geotracker databases, hazard mapping, and relevant plans and regulations at the federal, State, and local levels.

RELEVANT PROPOSED GOALS AND POLICIES

The following policy of the Proposed Plan is generally relevant to potential hazardous and hazardous material impacts.

Safety Element

Goal A: Protect life and property from natural and humanmade hazards.

> **Policy a.36.** Continue to require remediation of hazardous material releases from previous land uses as part of any redevelopment activities.
>
> **Policy a.37**. Regulate development on sites with known contamination of soil or groundwater to ensure that construction workers, future occupants, adjacent residents, and the environment are adequately protected from hazards associated with contamination.
>
> **Policy a.38**. Consistent with State regulations, require proper storage and disposal of hazardous materials to reduce the likelihood of leakage, explosions, or fire, and to properly contain potential spills from leaving the site.

Land Use Element

Goal C: Minimize airport safety hazards and promote compatibility with airport and military operations.

> Policy c.1: Require that new development be consistent with the Airport Land Use Compatibility Plan (ALUCP) for the Monterey Regional Airport. However, proposed developments that are not consistent with the ALUCP standards shall be referred to the ALUC for consistency review as provided by law.
>
> Policy c.2: Refer all projects that may penetrate aeronautical surfaces identified in the ALUCP or impede approach/departure visibility within the Monterey Regional Airport Influence Area to the Airport Land Use Commission for consistency review prior to issuing local development permits.
>
> Policy c.3: Minimize the potential for development adjacent to the Monterey Regional Airport to adversely affect airport operations such as by reducing the potential for bird strikes, and electromagnetic interference, and glare.

IMPACTS

Impact 3.8-1 Implementation of the Proposed Plan would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. (*Less than Significant*)

Construction activities arising from implementation of the Proposed Plan would involve routine transport, use, and disposal of hazardous materials such as solvents, paints, oils and greases, and

materials that are typically used in construction projects. Such transport, use, and disposal would be compliant with applicable regulations such as those described under the *Regulatory Setting*, which include regulations from RCRA, Cal OSHA, the U.S. Department of Transportation, and others. The regulations mentioned cover hazardous materials–related topics such as proper personal protective equipment, transport, handling, recordkeeping, and disposal, among others.

Although solvents, paints, oils, greases, fuels, and other materials would be transported, used, and disposed of during construction, these materials are typically used in construction projects and would not represent any undue hazard. Releases involving common construction hazardous materials would be small and localized and spills that may occur would be contained and cleaned according to the Safety Data Sheet[10] (SDS) in the appropriate manner.[11] A hazardous material SDS would include accidental release clean up measures such as appropriate techniques for neutralization, decontamination, cleaning or vacuuming, and adsorbent materials, etc. Contractors and staff would be covered by Cal OSHA and CUPA training standards that require documented employee training and equipment for emergency response.

Moreover, any project requiring greater than 1 acre of soil disturbance would be required to obtain National Pollutant Discharge Elimination System (NPDES) coverage under the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Order No. 2009-0009-DWQ (in addition to the regulations previously mentioned). The Construction General Permit would require the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which includes Best Management Practices (BMPs) to regulate and prevent contamination of stormwater runoff. Construction BMPs can include the following:

- Maintenance activities, maintenance schedules, and long-term inspection procedures to minimize release of fluids, oils and fuels from construction equipment.
- Controls for reducing or eliminating the discharge of pollutants
- Procedures for the proper disposal of waste[12]

As described in the *Environmental Setting*, there are several sites within the Planning Area that currently use hazardous materials and/or generate hazardous wastes which require regulatory oversight to protect human health and the environment. Additionally, the Proposed Plan would potentially permit new industrial, manufacturing, or research and development uses that involve routine transport, use, or disposal of hazardous materials in quantities reportable to the local

[10] SDS include information such as the properties of a chemical; the physical, health, and environmental health hazards; protective measures; and safety precautions for handling, storing, and transporting the chemical. In addition, OSHA requires that SDS preparers provide specific minimum information as detailed in Appendix D of 29 CFR 1910.1200.

[11] Occupational Safety and Health Administration (OSHA). 2012. Hazard Communication Standard: Safety Data Sheets. Last revised: February 2012. Available: https://www.osha.gov/Publications/OSHA3514.html. Accessed: January 4, 2024.

[12] U.S. Environmental Protection Agency (U.S. EPA). 2018. Stormwater Phase II Final Rule: Pollution Prevention/Good Housekeeping Minimum Control Measure. Available: https://www.epa.gov/sites/production/files/2018-12/documents/epa_stormwater_phase_ii_final_rule_factsheet_2.8_pollution_prevention_12-04-18.pdf. Accessed January 4, 2024.

CUPA. Such uses are regulated by the Monterey County's Environmental Health Bureau, Hazardous Materials Management Services under State and Federal laws and regulation. The City also coordinates with DTSC, which regulates the generation, treatment, and disposal of hazardous waste, and the SWRCB and regional water boards, which enforces the Clean Water Act and Porter-Cologne Water Quality Control Act, and protects the quality of ground and surface waters.

Routine transport of hazardous materials on major arterials and highways within and surrounding the Planning Area are regulated and monitored by USDOT, Caltrans, and the California Highway Patrol. Any hazardous material transport via railroad through the Planning Area would be regulated and monitored by USDOT. Although the use, storage and transport of hazardous materials releases cannot feasibly be eliminated, the requirements of existing regulatory programs would reduce potential program-level impacts of routine transport, use, or disposal of hazardous materials to a less-than-significant level.

Mitigation Measures

None required.

Impact 3.8-2 Implementation of the Proposed Plan would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (*Less than Significant*)

Implementation of the Proposed Plan could result in future development of land uses that may involve the use, transportation, disposal, and storage of hazardous materials in the Planning Area. As such, personal injury, property damage, environmental degradation, or death could potentially result from the release of hazardous materials caused by upset or accident conditions. Although the risk of upset and accident conditions involving the release of hazardous materials into the environment cannot be completely eliminated, it can be reduced to a manageable level. Existing regulations at the federal, State, and local levels serve to minimize the potential for upset during routine transportation, use, and disposal, including of medical waste and chemicals or solvents used in manufacturing processes. Additionally, regulations are in place to minimize the risk of upset or accident involving sites that have previously been contaminated by hazardous substances, such as those listed in Table 3.8-1 and shown on Figure 3.8-1. Continued compliance with CUPA programs would help to ensure documentation of releases and threatened releases as well as the development of risk management and hazardous materials release response plans required under existing regulations. Given existing regulations and programs and Proposed Plan policies and implementing actions that reduce the potential for hazardous materials upsets and promote safe handling and proper disposal of such wastes, impacts associated with the release of hazardous materials into the environment would be less than significant.

Mitigation Measures

None required.

Impact 3.8-3 Implementation of the Proposed Plan 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. (*Less than Significant*)

A significant impact would occur if implementation of the Proposed Plan would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Buildout of the Proposed Plan would not involve emitting or handling acutely hazardous materials or wastes in the vicinity of schools. While there are schools in Monterey are located within one-quarter mile of development sites under the Proposed Plan, construction projects such as housing would require little ground disturbance (lessening the potential risk of exposure) during construction and any hazardous materials use would still be subject to applicable requirements as mentioned under Impact 3.8-1. However, there are open and active hazardous materials sites within one-quarter mile or adjacent to a school campus, as shown on Figure 3.8-1. There are open Cleanup Program Sites with a quarter-mile of both Trinity Christian High School and San Carlos School, and active Military UST sites within a quarter-mile of Bay View Academy Upper Campus. Further, the General Plan Land Use map of the Proposed Plan displays the possibility of industrial and manufacturing uses that may emit hazardous emissions or handle hazardous materials within one-quarter mile of an existing school. Compliance with Monterey City Code Chapter 13, Article 2, details that responsible parties should take all actions necessary to remedy the effects of any unauthorized discharge, spill, or release of any hazardous substances, while Chapter 38, Section 130, requires all businesses located in the City prepare hazardous materials release response plans. Adherence to the requirements of existing regulatory programs would reduce potential impacts associated with handling hazardous materials near a school to a less-than-significant level.

Mitigation Measures

None required.

Impact 3.8-4 Implementation of the Proposed Plan would not result in development located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment. (*Less than Significant with Mitigation Incorporated*)

A significant impact would occur if development under the Proposed Plan is located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment. The California Department of Toxic Substances Control's EnviroStor database which, pursuant to Government Code Section 65962.5, lists Federal Superfund, State Response, Voluntary Cleanup, School Cleanup, Hazardous Waste Permit, and Hazardous Waste Corrective Action site, and the State Water Resources Control Board's GeoTracker database, which tracks authorized or unauthorized discharges of waste to land, or unauthorized releases of hazardous substances from underground storage tanks. According to the database, hazardous materials sites, including LUST

sites (which meet Cortese List requirements), exist within the Planning Area, as shown on Figure 3.8-1 and Table 3.8-1.

There 11 open "Cleanup Program Sites" in and within the vicinity of the Planning Area which include the following: American Tin Cannery Row Redevelopment Project, County Club Cleaners, Del Monte Shopping Center, Diaz Property, Dimaggio's Classic Cleaners, Former Sudden Service/Vapor Dry Cleaners, Former Tom's Monterey Auto Repair, Grove Laundry, Monterey Regional Airport, One Hour Martinizing, and Russo's Marine Fueling Station, as shown on Figure 3.8-1. Cleanup Program Sites are non-federally owned sites that are regulated under State Water Quality Control Board (SWRCB)'s Site Cleanup Program. Compliance with SWRCB and local regulations, such as Chapter 13, Article 2, would ensure clean-up responsibility for spills or release of any hazardous substances, while Chapter 38, Section 130 required all business to prepare hazardous materials release response plans. As such, the Cleanup Program Sites would not result in a significant hazard to the public.

As described in the Environmental Setting, there are no Superfund sites within the Planning Area[13]. However, the northernmost parcel within the Fort Ord/Ryan Ranch opportunity area (APN 031-191-018-000, referred to as parcel E29.1) is part of a munitions response area where unexploded ordnances (UXO) have been discovered. The site has been cleared of UXO to a level that permits light industrial uses; however, residential use is restricted and additional remediation in coordination with the U.S. Army, U.S. Environmental Protection Agency, and California Department of Toxic Substances Control is required before the residential restriction can be removed. Program 1-H in the proposed Housing Element would involve preparation of a specific plan to foster the creation of a mixed-use village within the Fort Ord/Ryan Ranch opportunity area to provide housing, jobs, schools, shops, services and recreation for future residents while also preserving carefully selected areas of natural open space and habitat. The proposed Housing Element does not identify the parcel E29.1 as a site available for housing within the 2023-31 planning period; however, the General Plan land use diagram designates the parcel as a mixed use neighborhood. Therefore, implementation of **Mitigation Measure HAZ-1** is required to ensure adequate remediation in coordination with the U.S. Army, U.S. EPA, and DTSC before development occurs.

Mitigation Measures

MM-HAZ-1: Remediation of Unexploded Ordnance at Fort Ord. Prior to issuance of a building permit for residential or mixed use development on APN 031-191-018-000 (referred to as parcel E29.1), the City shall require documentation demonstrating that soil and water on the parcel have been remediated consistent with the Residential Quality Assurance (RQA) process (or equal) and that the residential restriction has been removed by DTSC.

Significance after mitigation: Less than significant.

Impact 3.8-5 Implementation of the Proposed Plan would not result in development located within an airport land use plan or, where

[13] Source: Table 3.8-1 Contaminated Sites within the Planning Area . Geotracker, SWRCB, 2023; EnviroStor, DTSC, 2023.

such a plan has not been adopted, within two miles of a public airport or public uses airport, and would result in a safety hazard or excessive noise for people residing or working in the Planning Area. (*Less than Significant*)

A significant impact would occur if implementation of the Proposed Plan would result in development located within an airport land use plan or, within two miles of a public airport or public uses airport and would result in a safety hazard or excessive noise for people residing or working in the Planning Area. As described in Environmental Setting, the majority of the Planning Area is located within the Monterey Regional Airport influence area. As such, development under the Proposed Plan would largely be within the boundaries of the Monterey Regional Airport Land Use Compatibility Plan (ALUCP), including the airport safety zones established therein.

However, future development under the Proposed Plan would be required to comply with the safety zone land use compatibility standards in Table 4B Safety Criteria Matrix of the ALUCP in order to protect and promote the safety and welfare of residents and airport users. The Safety Criteria Matrix establishes maximum densities, intensities, prohibited uses, and other development conditions for proposed development within the ALUCP safety zones so as to restrict the development of land uses that could pose particular hazards to the public or to vulnerable populations in case of an aircraft accident. Further, the proposed Land Use Element creates a new Airport Compatibility Overlay, which applies to properties in airport safety zones 1 through 6 as identified in the ALUCP in order to protect airport operations and ensure public safety. The overlay requires that new development comply with the standards established in the ALUCP and requires review by the Airport Land Use Commission is required for any project in the AC-O that would exceed the height thresholds established in the ALUCP. Existing uses are permitted to continue and projects that meet the infill exemption criteria established in the ALUCP are also permitted. Further, the proposed Land Use Element includes policies to minimize airport safety hazards and promote compatibility with airport operations, including Policy C.1 which requires that new development be compatible with the standards for land uses, density, and intensity specified in ALUCP for the Monterey Regional Airport and Policy C.3 which seeks to minimize the potential for development adjacent to the Monterey Regional Airport to adversely affect airport operations such as by reducing the potential for bird strikes, electromagnetic interference, and glare.

Therefore, compliance with the ALUCP and implementation of the Proposed Plan would reduce airport safety hazards and excessive noise exposure potentially resulting from new development to the maximum extent practicable. Associated impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.8-6 Implementation of the Proposed Plan would not impair implementation of or physically interfere with an adopted

emergency response plan or emergency evacuation plan. (*Less than Significant with Mitigation Incorporated*)

See Impact 3.15-1 in EIR Section 3.15: Wildfire for analysis on this impact. Compliance with the existing regional and local codes and regulations, Monterey Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), the County of Monterey Emergency Operations Plan (OEP), the Monterey County Community Wildfire Protection Plan (CWPP), and MM-WF-1, would reduce impacts to a less-than-significant level related to interference with an adopted emergency response plan or emergency evacuation plan.

Mitigation Measures

MM-WF-1 The following measures shall be implemented to increase capacity and improve vehicle flow at locations projected to have a high volume-to-capacity ratio in the event of an emergency evacuation:

- Mitigate congestion and delay at the interchanges of Fremont Street-Highway 1 and Soledad Drive-Highway 1 by temporarily widening highway ramps by placing traffic cones to indicate two lanes to accommodate a higher volume of evacuating vehicles.

- Deploy adaptive traffic signal control systems that dynamically respond to real-time traffic conditions at the interchanges of Fremont Street-Highway 1 and Soledad Drive-Highway 1, giving priority to evacuation traffic and improving the efficiency of traffic flow during emergencies.

Impact 3.8-7 Implementation of the Proposed Plan would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. (*Less than Significant*)

See Impacts 3.15-1 and 3.15-2 in Section 3.15: Wildfire for analysis on this impact. Compliance with the existing State and local codes and regulations, California Fire Code, California Building Code requirements including California Code of Regulations Title 24, Monterey City Code Section 33-35, as well as proposed policies A.36, A.37, A.38 in the Safety Element, would reduce impacts to a less-than-significant level related to exacerbating wildfire risks during construction, operation, and implementation of the Proposed Plan.

Mitigation Measures

None required.

3.9 Hydrology and Water Quality

This section assesses potential environmental impacts from implementation of the goals, policies, actions, and projected buildout of the Proposed Plan related to hydrology and water quality. Issues addressed include water quality standards, groundwater resources, drainage, and flood hazards related to rivers, sea level rise, dam failure, seiches, tsunamis, and mudflows. The section describes existing surface water and groundwater hydrology, water quality, and flood hazards in the Planning Area, as well as relevant federal, state, and local regulations and programs.

There was one response to the Notice of Preparation (NOP) regarding topics covered in this section. A commenter suggested the reconnection of Lake El Estero with the ocean and flagged sea level rise adaptation for Del Monte Avenue as a concern. This comment is addressed in this section and incorporated into the following analysis.

Environmental Setting

PHYSICAL SETTING

Groundwater

Monterey is located in the Central Coast Hydrologic Region, which has 60 alluvial groundwater basins and subbasins.[1] There are no nearby groundwater basins that intersect with the Monterey Planning Area. The Salinas Valley Groundwater Basin is located approximately six miles east and northeast of the Planning Area. The Salinas Valley Seaside Subbasin is located just outside the city limits just east and northeast of Monterey. The Carmel Valley Subbasin is located approximately three miles south of the Planning Area. The Salinas Valley and Carmel Valley groundwater basins have been designated as a medium-priority basins by the California Department of Water Resources, while the Seaside Subbasin is designated as very low priority.[2]

Though these basins are hydrologically separate, they are hydraulically connected by California American Water (Cal-Am)'s distribution system. The City is supplied water by Cal-Am and is

[1] Central Coastal Regional Water Quality Control Board, 2013. *California Water Plan Central Coast Hydrologic Region*. Available: https://water.ca.gov/programs/california-water-plan. Accessed: October 31, 2023.

[2] California Department of Water Resources, Basin Prioritization, https://water.ca.gov/programs/groundwater-management/basin-prioritization, accessed 7/27/22.

managed by the Monterey Peninsula Water Management District.[3] Beneficial uses for the groundwater basin include municipal and domestic water supply, agricultural water supply, industrial process and service water supply, groundwater recharge, and freshwater replenishment. Both Carmel Valley Subbasin and the Seaside Subbasin have experienced years of overdraft and excessive pumping.[4] The main climate vulnerability is continued seawater intrusion in the basin as seawater levels rise, plus increased agricultural water uses and more severe and frequent droughts that may result in over pumping and further stress on the basin. Figure 3.9-1 displays groundwater basins within the Planning Area.

In addition, the Monterey Subbasin is located approximately 10 miles northeast of the Planning Area. While the Subbasin is not adjacent to the city limits, Marina Coast Water District's (MCWD) wells that would supply water to future developments at Fort Ord are located in the Monterey Subbasin. The Monterey Subbasin has been designated by the California Department of Water Resources (DWR) as medium priority. As such, the Subbasin is required to develop a GSP, which was published in 2022 by the MCWD Groundwater Sustainability Agency (GSA) and the Salinas Valley Basin GSA.

Surface Water Resources

The Planning Area is dissected by a number of small creeks and streams that flow directly or indirectly to Monterey Bay. Lake El Estero and Del Monte Lake are the two largest surface water bodies in the city , while Laguna Grande and Roberts Lake, located in the City of Seaside, border the northern Planning Area boundary.[5] Lake El Estero, a former estuary, now has water pumped in through a pipe, and water in Del Monte Lake is pumped to the ocean to prevent flooding. Lake El Estero and Del Monte Lake are receiving bodies for several of the streams that flow through the City. Historically, these estuary systems varied from a tidally influenced marine system to a brackish water lake. Discharge in the streams is seasonal, with most of it occurring during the winter rainy season. Figure 3.9-2 displays regional watersheds and surface water resources.

Storm Drain Facilities

The City owns and maintains a storm drainage system that collects and transports storm water to Monterey Bay, which includes over 10 miles of pipelines and drainage channels.[6] Storm water runoff is collected through catch basins and storm water inlets that direct runoff

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[3] Central Coastal Regional Water Quality Control Board, 2019. Water Quality Control Plan for the Central Coastal Basin, June 2019 Edition. Available: https://www.waterboards.ca.gov/centralcoast/publications_forms/publications/basin_plan/docs/2019_basin_plan_r3_complete_webaccess.pdf. Accessed: October 31, 2023.

[4] California American Water Central Division – Monterey County District. 2021. Urban Water Management Plan. Available: https://www.amwater.com/caaw/resources/PDF/Customer-Service-Billing/Rates-Tariffs/GRC-Applications/Monterey_UWMP.pdf. Accessed: October 31, 2023.

[5] City of Monterey, 2004. City of Monterey General Plan Update DEIR. Available: https://files.monterey.org/Document%20Center/CommDev/Planning/General-Plan/20-General-Plan-DEIR.pdf. Accessed: October 31, 2023.

[6] Ibid.

Figure 3.9-1: Groundwater Basins

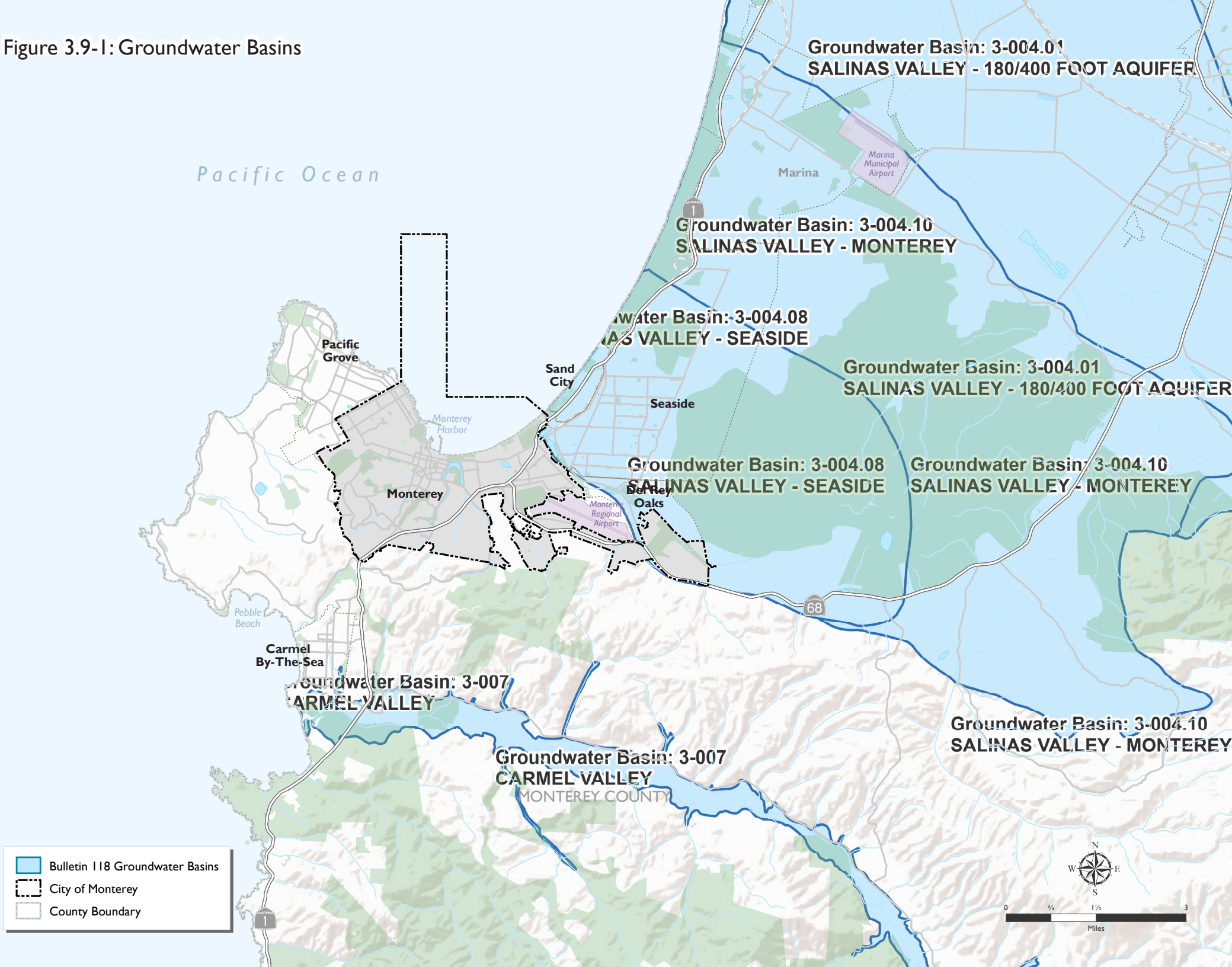
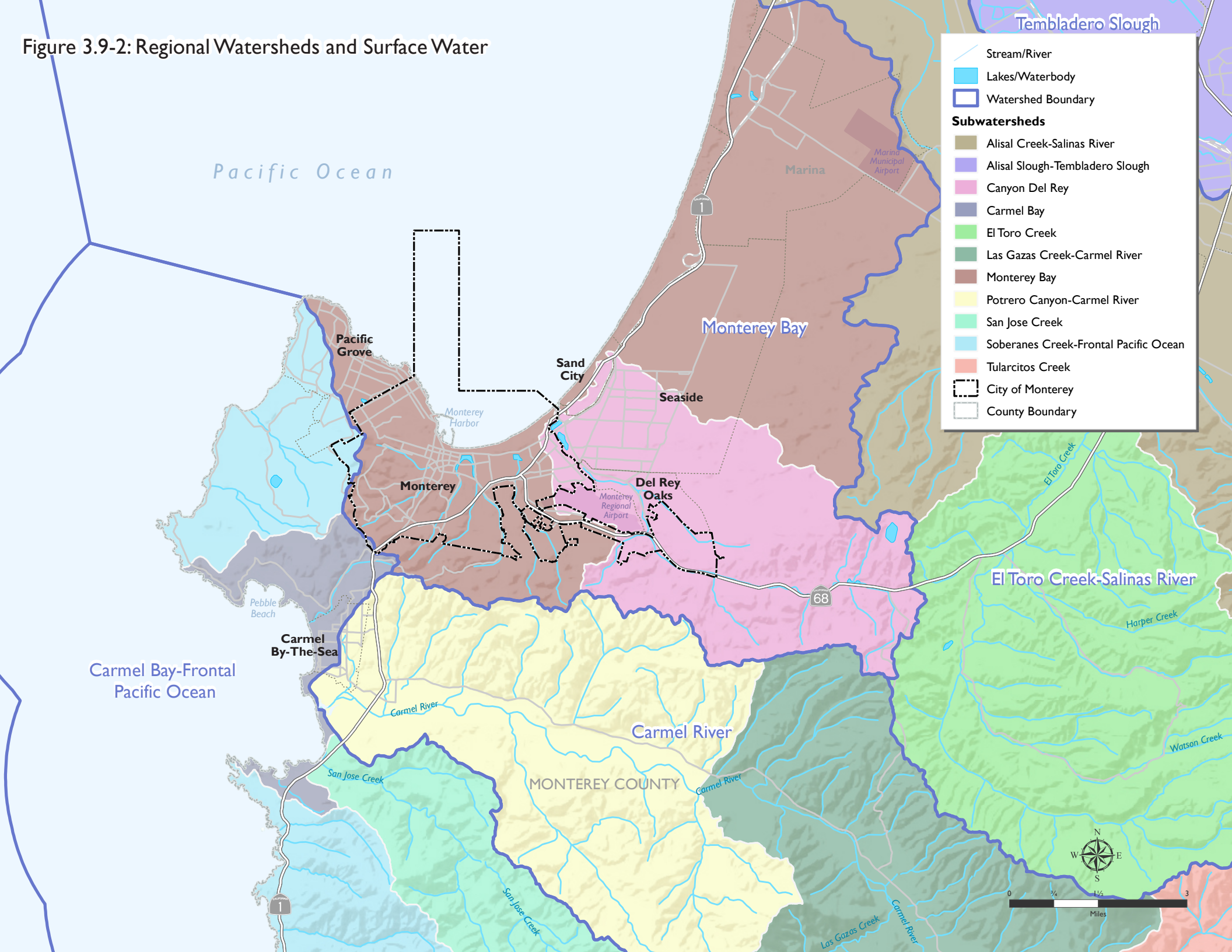


Figure 3.9-2: Regional Watersheds and Surface Water



into pipelines and channels. A series of stormwater outfalls are located along the margin of the Monterey Bay through which storm water is discharged. City personnel maintain the lines by cleaning the catch basins and the storm inlets. A portion of the cost for the maintenance and capital replacement of the storm drain system is recovered through a storm water utility fee. Figure 3.9-3 displays existing storm facilities in the Planning Area.

Water Quality

The *Water Quality Control Plan for the Central Coastal Bay Basin* (Basin Plan), as administered by the Central Coast Regional Water Quality Control Board, specifies beneficial uses that apply to water bodies where the potential exists for them to be affected by the project. Del Monte Lake has water quality requirements for the following beneficial uses: municipal and domestic supply, water contact recreation, non-contact water recreation, wildlife habitat, warm freshwater habitat, and commercial and sport fishing. El Estero Lake has the same water quality requirements for beneficial uses, with the addition of the following: groundwater recharge, cold freshwater habitat, and spawning, reproduction, and/or early development. Laguna Grande/Roberts Lake also has water quality requirements for the following beneficial uses: municipal and domestic supply, water contact recreation, non-contact water recreation, wildlife habitat, cold freshwater habitat, warm freshwater habitat, and commercial and sport fishing. [7]

Water bodies in Monterey were assessed and included in the California 2020-2022 Integrated Report.[8] Assessed waterbodies are surface waterbodies, such as rivers, lakes, and beaches, that are placed in one of five Integrated Report Condition Categories based on a waterbody's ability to support beneficial uses. The California 303(d) list portion of the California Integrated Report consists of waterbodies in Categories 4a, 4b, and 5. These waterbodies can be referred to as "listed" or "impaired." Listed or impaired waterbodies refer to those that contain pollutants at levels that exceed water quality standards set by the State and Regional Water Boards.[9] Monterey Harbor is listed as impaired for the following pollutants: Arsenic (75661), Copper (75970), Oxygen, Dissolved (83345), Polychlorinated biphenyls (PCBs) (74799), and Toxicity (85418). Hartnell Gulch West Fork is listed as impaired for Escherichia coli (E. coli) (125772). Don Dahvee Creek was listed as impaired for the following pollutants: Copper (113695), Escherichia coli (E. coli) (125788), Lead (113696), Zinc (113699)

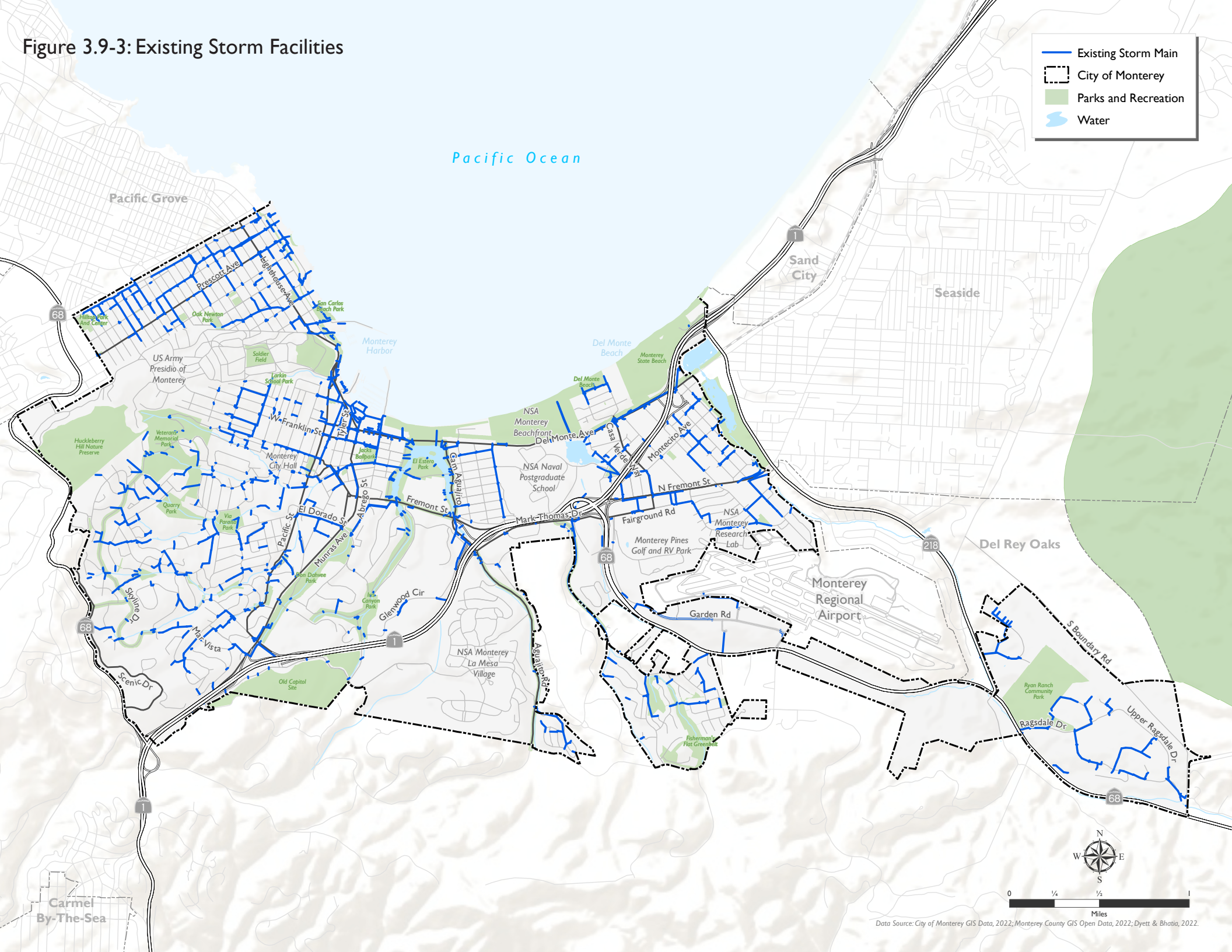
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[7] Central Coastal Regional Water Quality Control Board. 2019. *Water Quality Control Plan for the Central Coastal Basin, June 2019 Edition*. Available: https://www.waterboards.ca.gov/centralcoast/publications_forms/publications/basin_plan/docs/2019_basin_plan_r3_complete_webaccess.pdf. Accessed: October 31, 2023.

[8] State Water Resources Control Board. 2022. *2020-2022 California Integrated Report*. Central Coast Regional Water Quality Control Board. EPA approved: May 11, 2022. Available: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html. Accessed: November 1, 2023.

[9] State Water Resources Control Board. April 2, 2019. Impaired Water Bodies. Available: https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml. Accessed: January 17, 2024

Figure 3.9-3: Existing Storm Facilities



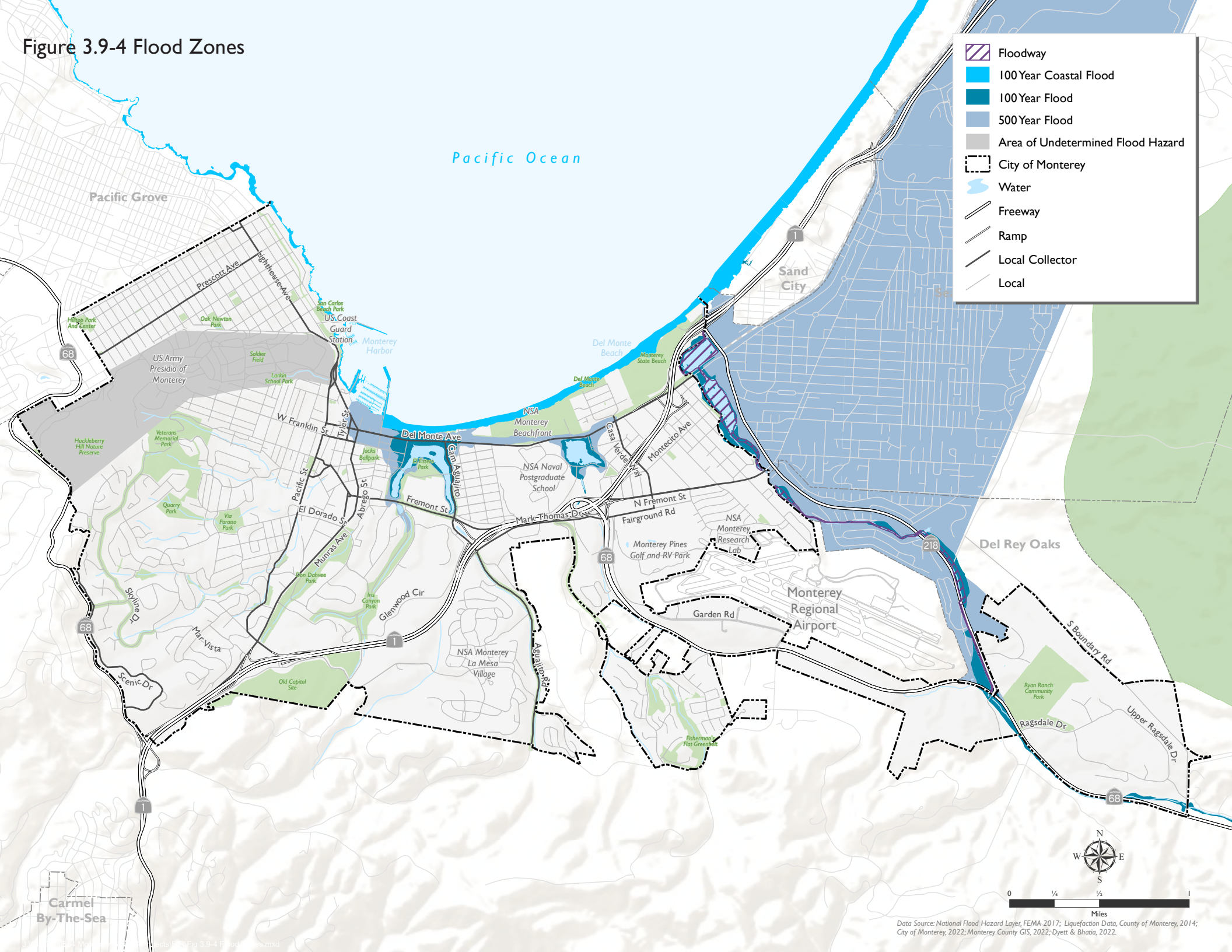
Groundwater resources in the vicinity of the Planning Area are located within the Salinas Valley Basin (3-004) and the Carmel Valley River Basin (Basin No. 3-007), as defined in the Basin Plan. Beneficial uses of these basins include a variety of municipal, domestic, industrial, agricultural, and wildlife uses.

Flooding

Figure 3.9-4 shows the 100-year coastal floodplain and 100-year and 500-year floodplains within the Planning Area based on the Federal Emergency Management Agency (FEMA) mapping. Parts of the coastline near Monterey Harbor, Municipal Wharf 2, Del Monte Beach, and Monterey State Beach are mapped within the 100-year coastal floodplain, which means that such areas are expected to flood once every 100 years. FEMA mapped areas near margins of water bodies in the Planning Area as 100-year floodplains, such as areas around El Estero Park and Del Monte Lake. In addition, there are larger areas, including Fisherman's Wharf, the Monterey Sports Center, and Del Monte Avenue from Tyler Street to Casa Verde Way that are mapped within the 500-year floodplains, where flooding is expected once every 500 years. Areas of special flood hazard, identified by FEMA or the Federal Insurance and Mitigation Administration in a report entitled "Flood Insurance Study for the City of Monterey" and dated 2009, are referenced in the Flood Damage Prevention ordinance (Article 7, Chapter 9) of the City Code. The Flood Insurance Study, with an accompanying Flood Insurance Rate Map, details the areas of special flood hazard in the Planning Area and is on file at the City of Monterey Building and Safety Division.

The City of Monterey is a permitted member of the Monterey Regional Storm Water Management Program (MRSWMP). The MRSWMP is a regulatory document that contains the requirements each entity must implement and enforce locally to protect the water quality of waterways like the Monterey Bay National Marine Sanctuary. The MRSWMP components are mandated by the State and the Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) for Phase II communities per the federal Clean Water Act. The MRSWMP includes appropriate source control, site design, and stormwater treatment measures for projects to address stormwater runoff pollutant discharges and prevent increases in runoff flows from new development and redevelopment projects. The Central Coast Regional Water Quality Control Board (RWQCB) also requires treatment of stormwater runoff for new developments, including flow through retention or detention basins, prior to discharge into waterways. Thus, projects will be required to consider design features for stormwater retention, detention, and/or water quality treatment.

Figure 3.9-4 Flood Zones



Data Source: National Flood Hazard Layer, FEMA 2017; Liquefaction Data, County of Monterey, 2014; City of Monterey, 2022; Monterey County GIS, 2022; Dyett & Bhatia, 2022.

Dam and Levee Failure Inundation Zones

Any dam poses a potential risk of failure, which would most likely be caused from seismically induced ground shaking or other seismic events, and which threatens the area below the dam with inundation. There are no dams located in the vicinity of the Planning Area. Los Padres Dam is located 18 miles southeast of the Planning Area, while the Forest Lake Dam is located two miles west in census-designated place Del Monte Forest.[10] Dam or levee failure of the Los Padres Dam and the Forest Lake Dams do not pose great threats to the Planning Area.

Coastal and Bay Hazards

Seiche

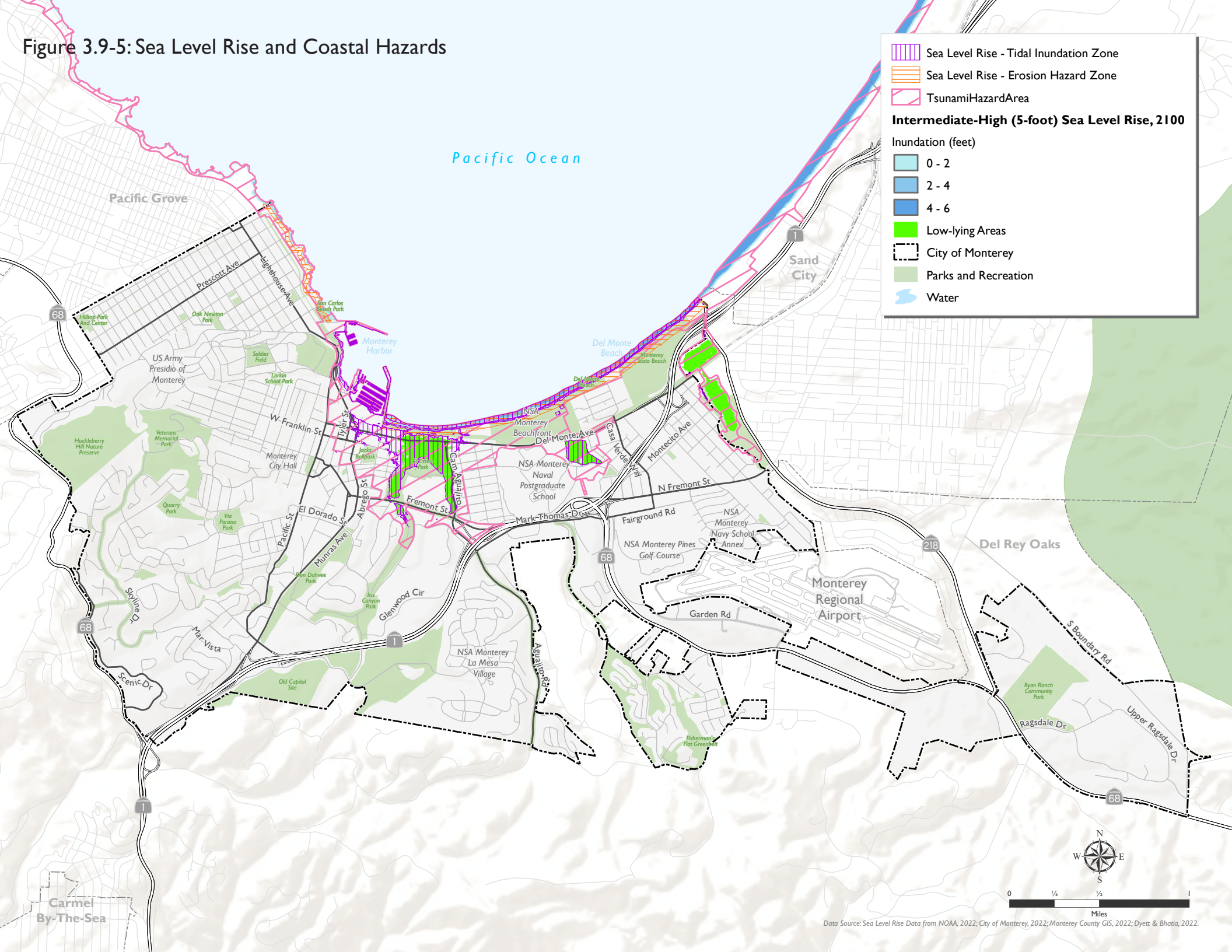
A seiche is a standing wave that oscillates in a body of water, due to strong winds, changes in atmospheric pressure, or seismic waves from an earthquake passing through a water body. Seiche occurs in an enclosed or partially enclosed body of water, such as a lake or reservoir. Due to water bodies within or near the Planning Area like Del Monte Lake and El Estero Lake, flood risk from a seiche could result and will be further evaluated in the environmental analysis.

Tsunamis

Tsunamis are long-period water waves caused by underwater seismic events, volcanic eruptions, or undersea landslides. Tsunamis affecting the Monterey Bay region would most likely originate west of the Bay, in the Pacific Ocean. Areas that are highly susceptible to tsunami inundation tend to be low-lying coastal areas, such as tidal flats, marshlands, and former bay margins that have been artificially filled. The Monterey Bay is located directly north of the Planning Area. The Planning Area ranges in elevation from approximately 0 feet above mean sea level (msl) to approximately 446 feet above msl. Based on the distance from Monterey Bay and elevation of the Proposed Plan, the Planning Area is susceptible to tsunami inundation. The coastline ranging from San Carlos Beach Park to Del Monte Beach, parts of Downtown, El Estero Park, and Del Monte Lake are low-lying areas that are susceptible to tsunamis. Sea level rise and tsunami hazard areas are shown on Figure 3.9-5.

[10] California Department of Water Resources, 2023. California Dam Breach Inundation Maps. Available: https://fmds.water.ca.gov/maps/damim/. Accessed: November 1, 2023.

Figure 3.9-5: Sea Level Rise and Coastal Hazards



REGULATORY SETTING

Federal Regulations

Clean Water Act

Several sections of the Clean Water Act (CWA) pertain to regulating waters of the United States. The CWA is not only the primary federal law for regulating water quality in the United States but also the basis for several State and local laws. Its objective is to reduce or eliminate water pollution in the nation's rivers, streams, lakes, and coastal waters. The CWA prescribes basic federal laws for regulating discharges of pollutants and sets minimum water quality standards for all waters of the United States. Several mechanisms are used to control domestic, industrial, and agricultural pollution under the CWA. [13]

The EPA is the overarching authority for protecting the quality of waters of the United States. However, the EPA has delegated administration and enforcement of the CWA in California to the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs). The State has developed a number of water quality laws, rules, and regulations. It also adopts water quality standards to protect beneficial uses of waters of the State, as required by Section 303(d) of the CWA. CWA requirements are addressed through development of a 303(d)/305(b) integrated report, which provides both an update to the 303(d) list and a 305(b) assessment of statewide water quality.[14] The 2020-2022 California Integrated Report was approved by the EPA on May 11, 2022.

Executive Order 11988

FEMA is responsible for managing the 100-year floodplain, areas with a 1 percent or greater chance of flooding in any given year. A Flood Insurance Rate Map, an official FEMA-prepared map, is used to delineate both the Special Flood Hazard Areas (the 100-year floodplain) and the flood-risk premium zones in a community. Under Executive Order 11988, FEMA requires local governments that are covered by the National Flood Insurance Program to pass and enforce a floodplain management ordinance that specifies minimum requirements for any construction within the 100-year floodplain.[15] FEMA administers the National Flood Insurance Program, which includes floodplain management and flood hazard mapping and provides subsidized flood insurance to communities that comply with FEMA regulations to limit development in floodplains.

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[13] United States Environmental Protection Agency (US EPA). June 22, 2023. Summary of the Clean Water Act. Available: https://www.epa.gov/laws-regulations/summary-clean-water-act. Accessed: January 17, 2024

[14] State Water Resources Control Board. April 18, 2023. 305(b)/303(d) Integrated Report. Available: https://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/303d/index.html. Accessed: January 17, 2024

[15] FEMA. October 20. 2021. Executive Order 11988 Floodplain Management. Available: https://www.fema.gov/glossary/executive-order-11988-floodplain-management. Accessed: January 17, 2024

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was established in 1974 to set federal minimum drinking standards and to protect public water supplies. This is the primary federal legislation protecting drinking water supplied by public water systems. As a result of the act, regulations for the protection of public health, as well as regulations relating to the taste, odor, and appearance of drinking water were established.[16]

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) was established and implemented by the SWRCB. The SWRCB is the primary State agency with responsibility for protecting the quality of the State's surface and groundwater supplies, or waters of the State. Waters of the State are defined more broadly than waters of the United States (i.e., any surface water or groundwater, including saline waters, within the boundaries of the State). This includes waters in both natural and artificial channels. It also includes all surface waters that are not waters of the United States or non-jurisdictional wetlands, which are essentially distinguished by whether they are navigable. If waters are not navigable, they are considered to be isolated and, therefore, under the jurisdiction of only the Porter-Cologne Act and not the CWA.[17] The Porter-Cologne Act authorizes the SWRCB to draft policies regarding water quality. The act requires projects that discharge or propose a discharge of wastes that could affect the quality of waters of the State to file a Report of Waste Discharge with the appropriate RWQCB. The Porter-Cologne Act also requires the SWRCB or a RWQCB to adopt basin plans for the protection of water quality.

National Pollutant Discharge Elimination System Permit Requirements

The 1972 amendments to the federal Water Pollution Control Act established the National Pollutant Discharge Elimination System (NPDES) permit program to control discharges of pollutants from any point source. The 1987 amendments to the CWA created a new section, which was devoted to stormwater permitting (Section 402).[18] The Phase I NPDES stormwater program regulates stormwater discharges small and medium-sized municipal separate storm sewer systems (MS4s) (i.e., those serving less than 100,000 persons). CWA Section 402 mandates permits for municipal stormwater discharges, which are regulated under the NPDES General Permit for MS4s. The discharge of stormwater runoff from the MS4 in Monterey is permitted under the Central

[16] US EPA. June, 2004. Overview of the Safe Drinking Water Act. Available: https://www.epa.gov/sdwa/overview-safe-drinking-water-act. Accessed: January 17, 2024

[17] State Water Resources Control Board. January 2024. Porter-Cologne Water Quality Control Act. Available: https://www.waterboards.ca.gov/laws_regulations/docs/portercologne.pdf. Accessed: January 17, 2024

[18] US EPA. September 2010. Development of the Clean Water Act and NPDES Program, NPDES Permit Writers Manual. Available: https://www3.epa.gov/npdes/pubs/pwm_chapt_01.pdf. Accessed: January 17, 2024

Coast Municipal Regional Permit (MRP) (Order No. R3-2013-0032; NPDES Permit No. CAS000004), which is discussed further below.[19], [20]

NPDES General Construction Stormwater Permit

Most construction activities that disturb 1 acre of land or more are required to obtain coverage under the NPDES General Permit for Construction Activities (Construction General Permit). The SWRCB issued a statewide Construction General Permit (Order No. 2009-0009-DWQ, NPDES No. CAR000002, as amended by 2010-0014-DWQ and 2012-0006-DWQ), which was adopted on September 2, 2009.[21] 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 1 acre to the total land area. The Construction General Permit requires the applicant to file a Notice of Intent (NOI) to discharge stormwater and prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP includes a site map and a description of proposed construction activities, along with a demonstration of compliance with relevant local ordinances and regulations. Also included is an overview of the best management practices (BMPs) that would be implemented to prevent soil erosion and discharges of other construction-related pollutants that could contaminate nearby water resources. Permittees are further required to conduct annual monitoring and reporting to ensure that BMPs are correctly implemented and effective in controlling the discharge of stormwater-related pollutants.

Water Quality Control Plan

Monterey Bay is under the jurisdiction of the Central Coast RWQCB, which established regulatory standards and objectives for water quality in its Water Quality Control Plan for the Central Coastal Basin, commonly referred to as the Basin Plan.[22] Basin plans are updated and reviewed every 3 years. They provide the technical basis for determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals. Each RWQCB, which has region-

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[19] State Water Resources Control Board. February 5, 2013. National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000004. Available: https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/phsii2012_5th/order_final.pdf. Accessed: January 17, 2024

[20] California Regional Water Quality Control Board, Central Coast Region. July 12, 2013. Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region. Available: https://www.monterey.org/Document%20Center/Public%20Works/Engineering/Environmental%20Regulations/Stormwater%20Program/2013_0032_attach1_post_construction_requirements.pdf. Accessed: January 17, 2024

[21] State Water Resources Control Board. January 23, 2013. NPDES General Permit for Construction Stormwater Discharges Associated with Construction and Land Disturbance Activities Order No. 2009-0009-DWQ. Available: https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo2009_0009_dwq.pdf. Accessed: January 17, 2024

[22] Regional Water Quality Control Board, Central Coast Region. June 2019. Water Quality Control Plan for the Central Coast Basin. Available: https://www.waterboards.ca.gov/centralcoast/publications_forms/publications/basin_plan/docs/2019_basin_plan_r3_complete_webaccess.pdf. Accessed: January 17, 2024

wide and water body–specific beneficial uses, sets numeric and narrative water quality objectives for several substances and parameters in numerous surface waters in its region. A basin plan must include (1) a statement of beneficial water uses that the RWQCB will protect, (2) the water quality objectives needed to protect the designated beneficial water uses, and (3) strategies to be implemented, with time schedules for achieving the water quality objectives. The Basin Plan was last updated in 2019.

NPDES Phase II Small MS4 General Permit

SWRCB adopted the Phase II Small MS4 General Permit for Water Discharge Requirements (Order No. 2013-0001-DWQ NPDES Permit No. CAS000004, further amended five times) on February 5, 2013.[23] Several Cities and counties (including Monterey) are covered as permittees under this permit and required to address issues regarding the protection of stormwater quality in their jurisdictions through implementation of stormwater programs. Monterey is a permittee under the Phase II MS4 Permit for the discharge of stormwater runoff from the MS4s. The project would be required to comply with Provision E.10 of the MS4 Permit. Provision E.10 requires adoption and implementation of low-impact development (LID) techniques, including, among other things, infiltration and biotreatment, the use of vegetated swales and retention basins, and minimal use of impermeable surfaces, to manage stormwater and maintain a site's predevelopment runoff rates and volumes.

Waste Discharge Requirements General Permit for Discharges with Low Threat to Water Quality

CWA Section 402 includes waste discharge requirements for dewatering activities. Although small amounts of construction-related dewatering are covered under the Construction General Permit, the Central Coast RWQCB has regulations specific to dewatering activities. These typically involve reporting and monitoring. If dewatering occurs as part of the project at storm drains that lead to Monterey Bay, the contractor would be required to comply with Central Coast RWQCB dewatering requirements. If contaminated groundwater is encountered during construction (e.g., contamination from chlorinated VOCs), the project sponsor would be required to comply with the Central Coast RWQCB's general requirements (i.e., Order No. R3-2017-0042, Waste Discharge Requirements NPDES Permit for Discharges With Low Threat to Water Quality.)[24]

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for State intervention

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[23] State Water Resources Control Board. February 5, 2013. General Permit for Waste Discharge Requirements (WRDs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2013/wqo2013_0001dwq.pdf. Accessed: January 17, 2024

[24] California Regional Water Quality Control Board, Central Coast Region. December 2017. Order No. R-3-2017-0042 Waste Discharge Requirements NPDES Permit for Discharges With Low Threat to Water Quality. Available: https://www.waterboards.ca.gov/centralcoast/board_decisions/adopted_orders/2017/npdes_general_order_r3-2017-0042.pdf. Accessed: January 17, 2024

only if necessary to protect the resource. The plan is intended to ensure a reliable groundwater water supply for California for years to come.[25]

The SGMA requires the formation of local Groundwater Sustainability Agencies, which are required to adopt Groundwater Sustainability Plans (GSPs) to manage the sustainability of groundwater basins.[26] Adoption of a GSP is required for all high- and medium-priority basins, as identified by the Department of Water Resources; otherwise, the agencies must submit an alternative to a GSP. The SGMA also requires governments and water agencies with high- and medium-priority basins to halt overdraft practices and bring groundwater basins into a balanced level of pumping and recharge. Within SGMA, the Salinas Valley and Carmel Valley groundwater basins have been designated as a medium-priority basins and are required to have groundwater sustainability agencies (GSAs), groundwater sustainability plans (GSPs), and manage groundwater for long-term sustainability. The Carmel Valley Subbasin (3-007) is in an unmanaged area part of a medium-priority groundwater basin. An unmanaged area is a part of a high- or medium-priority groundwater basin that is outside the management of a Groundwater Sustainability Agency (GSA) and not subject to an alternative to a Groundwater Sustainability Plan (GSP) or other exemption from SGMA requirements.[27]

The Seaside Subbasin (3-004.08) was adjudicated in 2006 in response to overdraft of the subbasin and conflict between groundwater users (California American Water v. City of Seaside, et al. (Case No. M66343, California Superior Court, Monterey County). The adjudication defined the safe yield of the subbasin and allocated specific volumes of groundwater pumpage to each of the parties to the adjudication that limits the total volume of groundwater extraction to the safe yield. The implementation of the adjudication results in managing the subbasin's groundwater resources in a sustainable manner similar to the requirements of SGMA. Consequently, the Seaside Subbasin 3-004.08 will not have a GSA formed and will not be required to prepare and implement a GSP under SGMA. Within SGMA, the Monterey Subbasin (3-004.10) has been designated as a medium-priority groundwater subbasin, which requires the adoption of a GSP. MCWD and Salinas Valley Groundwater Basin (SVGB) GSAs co-developed a GSP in January 2022 to meet SGMA regulatory requirements, while reflecting local needs and preserving local control over water resources. The GSP provides a path to achieve and document sustainable groundwater management within 20 years following GSP adoption and preserves the long-term sustainability of locally-managed groundwater resources.

Local

Monterey Regional Storm Water Management Program (MRSWMP)

Monterey Regional Storm Water Management Program (MRSWMP) facilitates local compliance with the federal Clean Water Act and coordinates activities with other pollution prevention programs, such as those pertaining to wastewater treatment plants, hazardous waste disposal, and

[25] California Department of Water Resources. Sustainable Groundwater Management Act (SGMA). Available: https://water.ca.gov/programs/groundwater-management/sgma-groundwater-management. Accessed: January 17, 2024

[26] Ibid.

[27] State Water Resources Control Board, 2023. Sustainable Groundwater Management Act. Available: https://www.waterboards.ca.gov/sgma/groundwater_basins/. Accessed: November 6, 2023.

water recycling. The purpose of the MRSWMP is to implement and enforce a series of management practices, referred to as "Best Management Practices" (BMPs), which are designed to reduce the discharge of pollutants from the MS4s to the maximum extent practicable. MRSWMP also provides City staff construction BMP site inspection checklists for sites less than an acre and more than an acre.[28] Additionally, jurisdictions within the MRSWMP are advised to use the *Stormwater Technical Guide for Low Impact Development*. The guide is designed ensure compliance with the post construction requirements (PCRs), facilitate review of applications, and promote integrated Low Impact Development (LID) design, which stems from Central Coast RWQCB Order R3-2013-0032.

California American Water Urban Water Management Plan

California American Water Company (Cal-Am)'s Urban Water Management Plan (UWMP) was prepared in response to California's Urban Water Management Planning Act, Water Code Sections 10610 through 10656. The act requires every urban water supplier that provides water to more than 3,000 customers for municipal purposes or supplies more than 3,000 acre-feet of water annually to prepare and adopt an UWMP and update the plan every 5 years. On June 2021, Cal-Am's 2020 Urban Water Management Plan was published.[29] This plan is an update to the 2015 UWMP and carries forward information from that plan that remains current and is relevant to this plan and provides additional information as required by amendments to the Urban Water Management Planning Act (UWMP Act; CWC §10610 – 10657). The UWMP discusses the status of projects, programs, and studies regarding water supply planning, water conservation, and recycled water. Cal-Am manages several programs and projects in the county that focus on water quality, pollution prevention, water conservation, and stream and creek protection.

Marina Coast Water District 2020 Urban Water Management Plan

Marina Coast Water District Urban Water Management Plan (UWMP) was prepared in response to California's Urban Water Management Planning Act, Water Code Sections 10610 through 10656. The act requires every urban water supplier that provides water to more than 3,000 customers for municipal purposes or supplies more than 3,000 acre-feet of water annually to prepare and adopt an UWMP and update the plan every 5 years. In May 2021, MCWD's 2020 Urban Water Management Plan was published. This plan is an update to the 2015 UWMP and carries forward information from that plan that remains current and is relevant to this plan and provides additional information as required by amendments to the Urban Water Management Planning Act (UWMP Act; CWC §10610 – 10657). The UWMP discusses the status of projects, programs, and studies regarding water supply planning, water conservation, and recycled water. MCWD manages several programs and projects in the service area that focus on water quality, pollution prevention, and water conservation.

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28 City of Monterey. 2023. Construction Sites and Stormwater. Available: https://monterey.org/city_hall/public_works/engineering/environmental_regulations/storm_water_program/construction_sites_and_stormwater.php. Accessed: November 3 2023.

29 California American Water, 2021. Urban Water Management Plan. Avaliable: https://www.amwater.com/caaw/resources/PDF/Customer-Service-Billing/Rates-Tariffs/GRC-Applications/Monterey_UWMP.pdf. Accessed: January 19, 2024.

Monterey General Plan

The Monterey General Plan includes the following goals and policies associated with hydrology and water quality:

Conservation Element

Goal b. Protect creeks, lakes, wetlands, beaches, and Monterey Bay from pollutants discharged to the storm drain system.

> **Policy b.1.** Continue public education and outreach programs to eliminate use of storm drains for dumping hazardous or inappropriate wastes, such as used motor oil.
>
> **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.
>
> **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.
>
> **Policy b.4.** Retain and restore wetlands, riparian areas, and other habitats, which provide remediation for degraded water quality.

Open Space Element

Goal d. Preserve and improve lakes and waterways as important visual, habitat, flood protection, and recreation resources.

> **Policy d.3.** Maintain the lakes and waterways as flood control features for the City.

Goal e. Ensure streams continue to function as natural flood control channels and habitat for native plants and animals.

> **Policy e.1.** Maintain the City's streams by controlling erosion.

Public Facilities Element

Goal l. Continue to improve drainage and urban runoff quality throughout the City and maintain Monterey's status as a regional lead agency for storm water management programs.

> **Policy l.1.** Set storm drain fees at a rate sufficient to maintain and, when necessary, replace and upgrade the system.
>
> **Policy l.2.** The City of Monterey will comply with requirements from State regulatory agencies related to urban runoff quality. This includes required implementation of the NPDES Phase II six minimum measures: Public Education and Outreach, Public Participation/Involvement, Illicit Discharge Detection and Elimination, Construction Site

Runoff Control, Post-Construction Runoff Control, and Pollution Prevention/Good Housekeeping.

Monterey City Code

Chapter 9. Article 7, Flood Damage Prevention of the Monterey City Code provides provisions to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas. The purpose of this chapters to minimize expenditure of public money for costly flood control projects, to minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard, to insure that potential buyers are notified that property is in an area of special flood hazard; and to ensure that those who occupy the areas of special flood hazard assume responsibility for their actions. This chapter includes standards of construction (9-71.1), standards for manufactured homes (9-71.4), and standards for coastal high hazard areas (9-71.5).

Chapter 31.5, Article 2, Urban Storm Water Quality Management and Discharge Control Ordinance, provides provisions to protect and enhance the water quality of waters of the State and waters of the United States, and to protect water bodies in a manner pursuant to and consistent with Federal, State, and regional regulations. Specifically, this ordinance stipulates regulations for new development aligned with NPDES General Permit (No. CAS000004 Waste Discharge Requirements for Storm Water Discharges from Small MS4s), as well Central Coast RWQCB Post-Construction Stormwater Management Requirements for Development Projects (Resolution No. R3-2013-0032). The ordinance requires all construction site owners and contractors to implement storm water management practices (BMPs), which prevent pollutants generated during construction from leaving the construction site and entering the City's storm water system during wet or dry weather.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if the Proposed Plan would:

Criterion 1: **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;**

Criterion 2: **Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;**

Criterion 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:**

i. Result in substantial erosion or siltation on- or off-site;

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
iv. Impede or redirect flood flows.

Criterion 4: In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or

Criterion 5: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

METHODOLOGY AND ASSUMPTIONS

All Proposed Plan elements were analyzed by comparing existing conditions, as described in the Environmental Setting section, to conditions during implementation of the Proposed Plan. The analysis focuses on issues related to surface hydrology, flood hazards, groundwater supply, and surface and groundwater quality. Because future construction associated with the Proposed Plan can occur anywhere within the Planning Area, potential hydrology and water quality impacts associated with future development as a result of the Proposed Plan implementation are analyzed qualitatively at a program level.

Surface Water Hydrology

The surface water hydrology impact analysis considers potential changes in the physical characteristics of water bodies, impervious surfaces, and drainage patterns throughout the city as a result of the Proposed Plan's implementation.

Groundwater Hydrology

Impacts on groundwater supply and recharge are assessed by comparing existing groundwater use and recharge capabilities with conditions within the Planning Area after implementation of the Proposed Plan. Recharge is determined by the ability of water to infiltrate into the soil.

Surface and Groundwater Quality

Impacts of the Proposed Plan on surface water and groundwater quality were analyzed by using information on potential existing water quality conditions. Potential Proposed Plan–related sources of water contaminants generated by residential operational activities, such as vehicle use, building maintenance, trash generation, and the storage or inadvertent release of hazardous materials during construction associated with the Proposed Plan, are considered. The potential for water quality objectives to be exceeded and beneficial uses to be compromised is also considered.

Flooding

The flood risk analysis uses FEMA data and historical flood information to determine the existing flood zone and whether the Planning Area overlaps designated 100-year floodplains, whether it would affect the drainage system, and whether it was a flood risk. CEQA does not require an

analysis of how existing environmental conditions will affect a project's residents or users unless the project would exacerbate an existing environmental hazard. Accordingly, hazards resulting from a project that places development in an existing or future flood hazard area are not considered impacts under CEQA unless the project would exacerbate the flood hazard. Thus, the analysis evaluates whether the Proposed Plan would exacerbate existing or future flood hazards in the city, resulting in a substantial risk of loss injury or death. If evidence indicates it would not, then the analysis will conclude by stating such. If it could exacerbate the issue, then evidence is provided to determine if the exacerbation would or would not be significant.

RELEVANT PROPOSED GOALS AND POLICIES

The following policies of the Proposed Plan are generally relevant to potential hydrology and water quality impacts.

Goal A: Protect life and property from natural and humanmade hazards.

Policy A.14: Design, construct, and maintain street and storm drain flood control systems to accommodate storm flows, employing "green infrastructure" techniques as feasible and appropriate.

Policy A.15: Review all development applications for areas within a 100-year flood hazard zone for consistency with FEMA National Flood Insurance Program (NFIP) standards to mitigate flood hazard potentials.

Policy A.16: Require applicable development projects to employ low impact development (LID) design strategies that minimize drainage concentration, minimize impervi-ous coverage, utilize pervious paving materials, and overall utilize best manage-ment practices (BMPs) to reduce stormwater runoff and minimize increases in downstream runoff and/or impacts resulting from new development.

Policy A.17: Through compliance with existing environmental regulations and associated development agreements, require applicable new development and re-development to incorporate storm drainage and water quality improvements into their design plans for construction and to protect downstream watershed processes.

Policy A.18: Periodically review the risk of increased flooding hazards due to climate change and develop strategies to adapt to changing flood hazard conditions, including those related to monitoring, emergency preparedness, vegetation management, and development policies, and ensure that the City's hazard information is up-to-date regarding climate trends.

Policy A.19: Consider and mitigate the potential hazards from storm waves, tsunami, high tidal conditions and flooding for projects along the bay shoreline.

Policy A.20: As the need is identified, work with creekside property owners to reduce and mitigate flood hazards.

IMPACTS

Impact 3.9-1 Implementation of the Proposed Plan would not violate any federal, State, or local water quality standards or waste discharge requirements. (*Less than Significant*)

The Proposed Plan would have a significant environmental impact if it would violate water quality standards and waste discharge requirements such as those set out in the NPDES General Permit for Construction Activities (Construction General Permit). Violation could occur if the Proposed Plan would substantially increase pollutant loading levels in the sanitary sewer system, either directly, through the introduction of pollutants generated by industrial or other land uses, or indirectly, through stormwater pollution. The Central Coast RWQCB, MRSWMP, City Code and General Plan water quality protection requirements and conditions applicable to implementation of the Project are intended to reduce any potential construction period and post-construction water quality impacts to a less-than-significant level, consistent with federal and State water quality regulations and plans. These Central Coast RWQCB, MRSWMP, and City requirements and conditions apply to future housing development facilitated by the Proposed Plan.

Construction activities arising from implementation of the Proposed Plan, such as grading and other construction-related earth-disturbing activities, could result in short-term water quality impacts. These would be associated with soil erosion and subsequent sediment transport to adjacent properties, roadways, or watercourses via storm drains. Sediment transport to local drainage facilities such as drainage inlets, culverts, and storm drains would end up in creeks and Monterey Bay and result in water quality impacts. Construction activities could also generate dust, litter, oil, and other pollutants that could temporarily contaminate runoff from the Planning Area. However, substantial increase in stormwater volume and velocity is not anticipated with the Proposed Plan as subsequent projects would be required to comply with stormwater management regulations and implement BMPs.

Any project with soil disturbance of at least 500 square feet or 50 cubic yards would be required to submit an Erosion and Sediment Control Plan (ESCP), which would be subject to review and approval by the City. The ESCP would need to meet City standards of including erosion control best management practices (BMPs) such as avoidance of land-disturbing activities during the wet weather season, protection of existing vegetation, use of slope and slope stabilization BMPs, and containment of construction waste on-site. Individual projects disturbing more than one acre of ground would be required to obtain coverage under the State Construction General Permit, which requires preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP); the SWPPP also must include BMPs to control contamination of surface flows and potential discharge of pollutants from commencement of construction through project completion. Compliance with Construction General Permit, Monterey City Code (Chapter 31.5, Article 2) requirements, and submission of ESCP would ensure that BMPs would be implemented to control soil erosion and sedimentation and restrict non-stormwater discharges from construction sites as well as any release of hazardous materials. As a performance standard, the selected BMPs would represent the best available, economically achievable technology and the best conventional pollutant control technology. These standard NPDES and local required construction period measures would reduce the construction period pollutants entering waterbodies to a less-than-significant level.

Post-construction, other potential water quality impacts include runoff into storm drains or water bodies if proper minimization measures are not implemented. However, BMPs as required in the SWPPP and the Phase II Small Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) Permit, ranging from source control to treatment of polluted runoff, would be implemented to reduce pollutants in stormwater and other nonpoint-source runoff. Chapter 31.5, Article 2 of the City Code is also intended to protect and enhance water quality consistent with existing regulations. The ordinance requires operators of construction sites to install, implement, or maintain appropriate best management practices (BMPs) to maintain pre-development stormwater runoff rates and prevent source pollution whenever possible.

Continued implementation of General Plan Conservation Element policies would also reduce potential impacts related to water quality and waste discharge standards, including Policy b.1. through which the City would continue public education and outreach programs to discourage illegal dumping; Policy b.2. through which the City would conduct regular street sweeping to minimize particulate matter pollution; Policy b.3. under which the City would require actions to minimize erosion for development on steep slopes; and Policy b.4. under which the City would restore wetlands, riparian areas, and other habitats, which provide remediation for degraded water quality. Therefore, compliance with existing federal, State and local regulations and continued implementation of General Plan policies would minimize the potential for violation of water quality standards or waste discharge requirements or substantially degradation of water quality. Associated impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.9-2 Implementation of the Proposed Plan would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. (*Less than Significant)*

The Proposed Plan would have a significant impact if it would substantially deplete groundwater supplies or interfere with the sustainable management of groundwater basins. Groundwater basins in the vicinity of the Planning Area include the Salinas Valley Groundwater Basin, Salinas Valley Seaside Subbasin, and the Carmel Valley Subbasin - all of which are hydraulically connected by Cal-Am's distribution system - as well as the Monterey Subbasin, from which MCWD wells draw water. As discussed above, the Carmel Valley Subbasin is in an unmanaged area part of a medium-priority groundwater basin. Because it is an unmanaged area, it is not subject to an alternative to a Groundwater Sustainability Plan (GSP) or other exemption from Sustainable Groundwater Management Act (SGMA) requirements. Also, based on the most recent SGMA 2019 Basin Prioritization, the Salinas Valley Seaside Subbasin is a very low priority basin, and therefore, does not require the adoption of a GSP. As such, implementation of the Proposed Plan would not interfere or impede sustainable groundwater management of these basins because they do not have a GSP.

However, the Marina Coast Water District's (MCWD) wells that would supply water to future development at Fort Ord are located in the Monterey Subbasin. As described in the Environmental Setting section, the State has designated the Monterey Subbasin as a medium-priority groundwater basin, and as such, it is subject to SGMA. A potentially significant impact could occur if groundwater in this Subbasin were drawn to serve the needs of new development at Fort Ord in a way that would result in a net deficit of aquifer volume or lead to a lowering of the water table. Under SGMA, the Monterey Subbasin is required to develop a GSP, which was published in 2022. The Monterey Subbasin GSP identifies projects and management actions that will allow the Monterey Subbasin to attain sustainability in accordance with §354.42 and §354.44 of the GSP Emergency Regulations. The goal of the projects and management actions is to address significant and unreasonable results related to the chronic lowering of groundwater levels and seawater intrusion in each management area. Specifically, projects and management actions to be led by MCWD are outlined in the GSP that will primarily benefit the Marina-Ord Area. These projects and management actions include MCWD demand management measures, stormwater recharge management, recycled water reuse through landscape irrigation and indirect potable reuse, and well monitoring. [30]

According to the GSP, the potential projects presented, if implemented in aggregate, are adequate to supply the entirety of projected groundwater demands in the Marina-Ord Area. The GSP provides a path to achieve and document sustainable groundwater management within 20 years following Plan adoption and preserves the long-term sustainability of locally managed groundwater resources.[31] Compliance with the SGMA legislation, by regularly demonstrating that the basin is not overdrafted, ensures that the groundwater draws will be carefully managed and sustainably used, and that the Proposed Plan will not substantially deplete groundwater supplies from increased demand. As such, compliance with SGMA legislation that requires implementation of the Monterey Subbasin GSP, development under the Proposed Plan would not interfere or impede sustainable groundwater management in the region.

Cal-Am also obtains groundwater from the Seaside Groundwater Basin. However, the State of California has limited the amount of water that can be drawn from both the Carmel Valley and the Seaside Basins. Withdrawals of surface water from the Carmel River have been limited to protect threatened species that live in the river. The Seaside Basin is under a court-ordered reduction schedule limiting groundwater withdrawals. Groundwater pumping is limited to protect the basin from overuse and to prevent saltwater intrusion into the aquifer, which would contaminate the freshwater supply. Therefore, implementation of the Proposed Plan would not deplete groundwater supplies or interfere substantially with groundwater recharge as the withdrawals of Carmel Valley and Seaside Basins are limited. See also DEIR Section 3.14, *Utilities and Service Systems*, for further analysis regarding potable water supplies.

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[30] Marina Coast Water District Groundwater Sustainability Agency & Salinas Valley Basin Groundwater Sustainability Agency, 2022. *Groundwater Sustainability Plan Monterey Subbasin.* Available: https://svbgsa.org/monterey-subbasin/. Accessed: February 5, 2024.

[31] Ibid.

Development associated with the Proposed Plan would be expected to increase the amount of impervious area within the Planning Area, which could also indirectly influence groundwater recharge. However, implementation of State and local stormwater management policies would result in an increase in the use of bioretention and other methods to slow rates of water flow and allow stormwater to infiltrate the soil, supporting groundwater recharge. In addition, as discussed in Impact 3.9-1, new development and redevelopment, depending on the area of impervious surfaces, would be required to incorporate on-site methods to result in no net increase in drainage off-site compared to pre-project site hydrology, including low impact development techniques that filter, store, evaporate, and detain runoff close to the source of rainfall and control the rate and/or volume of stormwater, allowing stormwater to naturally infiltrate soils. Based on the foregoing, at the program level, development under the Proposed Plan would not substantially decrease groundwater supplies and would not impede sustainable groundwater management of the basin. Therefore, associated groundwater impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.9-3 Implementation of the Proposed Plan would not 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, siltation, or flooding on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows. (*Less than Significant*)

Erosion, Siltation, and Flooding

Development associated with the Proposed Plan would be expected to increase the amount of impervious surface area within the Planning Area. Therefore, buildout of the Proposed Plan could increase runoff and alter existing drainage patterns resulting in erosion, siltation, and flooding. Additionally, construction activities could involve excavation and disturbance of existing ground surface, exposing base soil and temporarily altering surface drainage patterns.

As discussed under Impact 3.9-1, any project with soil disturbance of at least 500 square feet or 50 cubic yards would be required to submit an ESCP. The ESCP would need to meet City standards of including erosion control BMPs, such as avoidance of land-disturbing activities during the wet weather season, protection of existing vegetation, use of slope and slope stabilization BMPs, and containment of construction waste on-site. Additionally, individual projects disturbing more than one acre of ground would be required to implement a SWPPP; with erosion and sediment control BMPs as required by the State's Construction General Permit and MS4 Phase II Permit regulations. Standard erosion and sediment control measures and other housekeeping BMPs, such as vehicle and equipment maintenance, material delivery and storage, and solid waste management, would

be identified in the SWPPP. These measures would be identified for each individual project and implemented during construction to reduce contamination and sedimentation in waterways.

The SWPPP would also include a range of stormwater control BMPs (e.g., installing silt fences, staked straw wattles, or geofabric to prevent silt runoff to storm drains or waterways); requirements for the stockpiling, protection, and replacement of topsoil and backfill at the conclusion of construction activities; and requirements for revegetation of turf, plants, and other vegetation upon completion of construction. Projects disturbing less than an acre of ground surface during construction would not be required to prepare a SWPPP but would be required to implement the construction site control BMPs required by the City's MS4 NPDES permit. Development associated with the Proposed Plan would be required to comply with Provision E.10, which requires adoption and implementation of LID techniques, including the use of vegetated swales and retention basins and minimal use of impermeable surfaces to manage stormwater and maintain a site's predevelopment runoff rates and volumes. Development would also be subject to requirements of the Construction General Permit, San Central Coast RWQCB Municipal Stormwater Pollution Prevention Program, and the City's erosion and sediment control requirements. Compliance with applicable regulations and implementation of erosion and sediment control BMPs discussed above would ensure that impacts associated with substantial alteration of the existing drainage pattern of the Planning Area would be reduced. Therefore, at the program level, development under the Proposed Plan would not result in substantial erosion, siltation, or flooding on- or off-site and impacts would be less than significant.

Surface Runoff

The City owns and maintains the storm drainage collection system, which is comprised of reinforced concrete pipe, and discharges by permit to the Monterey Bay. As described above, the City's stormwater conveyance system is designed to capture, direct, and convey peak storm event flows. Current stormwater requirements for construction and new development regulate both the quality and the quantity of storm runoff. Storm water quality is regulated under the Phase II MS4 Permit, of which the City of Monterey is a permittee. Developments within the Planning Area must meet comply with Provision E.10, which requires adoption and implementation of low-impact development (LID) techniques, including, among other things, infiltration and biotreatment, the use of vegetated swales and retention basins, and minimal use of impermeable surfaces, to manage stormwater and maintain a site's predevelopment runoff rates and volumes. Guidelines for implementing these regulations are detailed in the MRSWMP *Stormwater Technical Guide for Low Impact Development* handbook and are reviewed and permitted by Monterey. Required compliance with existing local regulations would reduce the amount of runoff as well as the risks of the Proposed Plan contributing significant additional polluted runoff. Any new development associated with buildout of the Proposed Plan would be required to comply with best practices for stormwater treatment, as required by the City's MS4 Permit. These stormwater treatment guidelines would require new development within the Planning Area to detain storm runoff with bioretention facilities, minimize surface flow velocities, and make use of all applicable LID techniques. New development, during both construction and operations phases, would be required to comply with the NPDES General Permit for Construction Activities, which requires the preparation of a SWPPP and implementation of BMPs to mitigate risks of polluted runoff. Compliance with these regulations would reduce stormwater velocity and volume the maximum extent practicable, and as a result impacts would be less than significant.

Impede or Redirect Flood Flows

Approximately 968 acres of the Planning Area is within the 100-year flood zone and an additional 85 acres is in the 500-year flood zone, as shown in Figure 3.9-4. The City participates in the Federal Flood Insurance Program and is thus required to comply with requirements of the program. New developments within areas of special flood hazard are kept on file at the City of Monterey Building Safety Division. New developments associated with buildout of the Proposed Plan, such as housing sites within the Cannery Row area, within the 100-year coastal and 500-year floodplain would be in compliance with the Flood Damage Prevention Ordinance (Chapter 9. Article 7), which includes standards of construction (Section 9-71.1) and standards for coastal high hazard areas (Section 9-71.5). To minimize flood hazards, standards of construction require anchoring to prevent flotation and collapse, as well as flood resistant materials as specified in FEMA Technical Bulletin TB2-93. Standards for coastal high hazard areas include anchoring, filling, and prohibition of man-made alteration of sand dunes. Therefore, development under the Proposed Plan would not impede or redirect flood flows and impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.9-4 In flood hazard, tsunami, or seiche zones, implementation of the Proposed Plan would not risk release of pollutants due to project inundation. (*Less than Significant*)

As shown in Figure 3.9-4, the coastal flood zone extends along the northern part of the Planning area and some low-lying areas of the city are located in the FEMA-delineated 100-year 500-year flood zones. Further, as shown in Figure 3.9-5, the tsunami evacuation zone extends along the coastline and covers much of the Downtown area as well as parts of the Pacific-Munras-Cass opportunity area. A strong seismic event in the vicinity of the Planning Area could potentially result in a seiche in the Monterey Bay that could impact adjacent parts of the Planning Area. Implementation of the Proposed Plan would result in residential and employment-oriented development in and adjacent to these hazard areas. Construction activities associated with this new development would involve the storage and use of fuels, lubricants, coatings, dyes, paints and other potential pollutants. Once operational, new development would also typically use cleaning solvents or landscaping chemicals that could potentially be released with the occurrence of a flood event, tsunami, or seiche.

New development would be required to comply with existing City regulations designed to minimize and avoid loss or damage due to flooding. Development in flood hazard areas is regulated by the standards in Chapter 9. Article 7, Flood Damage Prevention of the Monterey City Code which require that all new construction and substantial improvements be constructed with flood resistant materials using methods and practices that minimize flood damage. Additionally, as noted above, all development pursuant to the Proposed Plan would be subject to the applicable provisions of City Code Chapter 31.5, Article 2 regarding stormwater management and drainage control, which would help ensure pre-development stormwater runoff rates and prevent nonpoint source pollution whenever possible. Compliance with these regulations would limit the risk of loss and damage due to flooding, including the release of pollutants, to the maximum extent practicable,

and with compliance, associated impacts would be less than significant. The Planning Area is not located within an area at risk of flooding in the event of dam or levee failure. The Los Padres Dam is located 18 miles southeast of the Planning Area, while the Forest Lake Dam is located two miles west on the other side of hills. As such there is no substantial risk of pollutant release as a result of damn or levee inundation and there would be no associated impact.

Mitigation Measures

None required.

Impact 3.9-5 Implementation of the Proposed Plan would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (*Less than Significant*)

As discussed under Impact 3.9-1, construction and operation associated with the Proposed Plan would comply with local, State, and federal regulations, including the NPDES Construction General Permit, Basin Plan, Central Coast Phase II MS4 Permit, and the City's Code. Commonly practiced BMPs, as required by these regulations, would be implemented to control construction site runoff and reduce the discharge of pollutants to storm drain systems from stormwater and other nonpoint-source runoff. As part of compliance with permit requirements during ground-disturbing or construction activities associated with future development, implementation of water quality control measures and BMPs would ensure that water quality standards would be achieved, including the water quality objectives that protect designated beneficial uses of surface and groundwater, as defined in the Basin Plan. Construction runoff would also have to be in compliance with the water quality objectives for the region. The NPDES Construction General Permit requires stormwater discharges not to contain pollutants that cause or contribute to an exceedance of any applicable water quality objectives or water quality standards, including designated beneficial uses. Therefore, the Proposed Plan would not obstruct implementation of a water quality control plan.

Further, as described under Impact 3.9-2, the Carmel Valley and Seaside subbasins are not subject to a Groundwater Sustainability Plan (GSP) or other Sustainable Groundwater Management Act (SGMA) requirements. The nearest medium-priority basin with a GSP is the Salinas Valley Groundwater Basin, Monterey Subbasin. As noted in GSP, MCWD is developing new water supplies to support redevelopment of the former Fort Ord and to supplement its groundwater supplies, which include Indirect Potable Reuse through expansion of the Advanced Water Purification Facility, injection of advanced treated water into 180/400 Foot Aquifers and/or the Deep Aquifers, and extraction with new and existing MCWD production wells. As development at Fort Ord under the Proposed Plan is accounted for in the Monterey Subbasin GSP, implementation of the Proposed Plan would not interfere or impede sustainable groundwater management of a basin. Overall, impacts related to conflicts with a water quality control plan or sustainable groundwater management plan would be less than significant.

Mitigation Measures

None required.

3.10 Land Use, Population, and Housing

This section assesses potential environmental impacts from implementation of the Proposed Plan related to land use, population, and housing. The analysis considers Proposed Plan consistency with other applicable land use plans and regulations, population growth, community division, and housing displacement. This section describes existing land uses, demographics, and housing in the Planning Area, as well as relevant federal, State, and local regulations and programs.

There were no responses to the Notice of Preparation (NOP) regarding topics covered in this section.

Environmental Setting

PHYSICAL SETTING

Existing Land Use

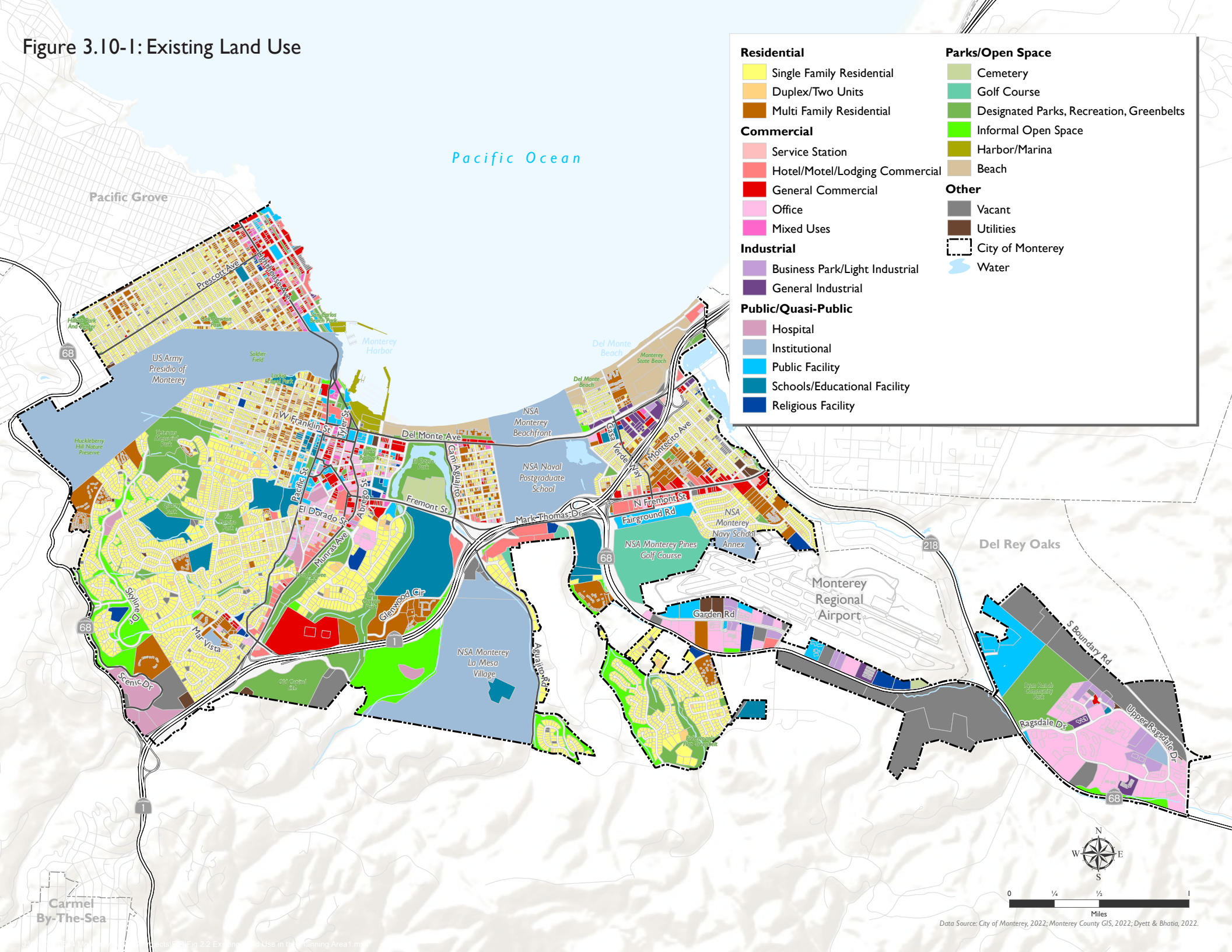
The 8.67-square mile Planning Area includes a wide mix of uses, including residential, public/semi-public, parks, recreation, and open space, industrial, and commercial uses. The relative acreage and distribution of existing land uses throughout the Planning Area are shown in Figure 3.10-1 and Table 3.10-1.

Residential

Residential land uses account for 24.6 percent of land (1,371 acres) within the City limit, spread throughout the community. Residential is the single largest land use category in the City of Monterey. Single-family homes occupy most of the residential land at 18.9 percent (1051.4 acres). Most of the single-family residential land use is found west of Pacific Street near the Presidio of Monterey. There is also a neighborhood of single-family homes near Alta Mesa Road and Via Mirada, directly north of the Del Monte Shopping Center. Single-family homes are also located east of Highway 68 near Fisherman's Flat Greenbelt, and on both sides of North Fremont Street.

Multi-family residential uses, including duplexes and apartments, are also located throughout Monterey, most being situated near the Presidio of Monterey, Downtown, Lighthouse Avenue, Monterey Peninsula College, and North Fremont Street. Multi-family residential accounts for 5.7 percent (319.6 acres) of land within the Planning Area.

Figure 3.10-1: Existing Land Use



Public/Institutional

Public/institutional land use designation applies to all publicly owned facilities and those private facilities operated to serve the public, excluding parks, recreation, and open space facilities, which have their own land use designation. Public and private schools, military facilities, cemetery, parking facilities, hospitals, museums, and historic buildings are the main uses within this category. The Defense Language Institute, Monterey Peninsula College, the Monterey Institute for International Studies, and the Naval Post Graduate School are the most significant institutional uses within this designation. About 24.4 percent of land (1,359.7 acres) in the city is devoted to public/institutional uses.

Commercial

Commercial land use designation in Monterey applies to all types of commercial areas and allows the full range of commercial uses, including retail, office, visitor commercial, and professional offices. Commercial land use accounts for 4.5 percent of land (250.6 acres) within the city limit. Commercial land use areas are generally mixed-use (i.e., a mix of commercial and residential buildings), and apartments, while having several amenities, access to services, jobs, and transportation, and public infrastructure which make them desirable for housing. The main commercial areas in Monterey include the Downtown area, focused around three-block-long Alvarado Street; Del Monte Shopping Center; commercial development along Lighthouse Avenue, Del Monte Avenue, and North Fremont Street; commercial areas in Cannery Row, Fisherman's Wharf, and along Munras Avenue; and medical offices concentrated around the Pacific-El Dorado-Cass Street area.

Industrial

About 1.4 percent of land (76.8 acres) in the city is devoted to industrial uses. The Industrial designation includes uses consisting mostly of business parks that have historically been dominated by office and lighter industrial uses. To broaden the city's economic base and provide an area for industrial development, a 300-acre Ryan Ranch area east of the city at the intersection of State Highways 68 and 218 was annexed in 1968 and is the primary reservoir of industrial land.

Parks

Parks, recreation, and open space land use designation includes neighborhood and community parks, community centers, and greenbelts and other open space areas. This includes the extensive open space network extending from the Monterey Bay to the hillsides surrounding the city, the open space resources provided by the Monterey Bay, the city’s greenbelts that are adjacent to developed areas, and both Lake El Estero and Del Monte Lake. About 16.4 percent of land (912.3 acres) in the city accounts for park, recreation, and open space uses.

Vacant

Vacant land accounts for 7.0 percent of the land within the city limit (398.8 acres). The largest vacant parcels can be found east of Highway 68 and south of Highway 1. Most vacant land is nestled

near the Monterey Regional Airport, Ryan Ranch Office Park, and Highway 1, adjacent to Scenic Drive and Highway 1, and some parcels near Cannery Row.

Table 3.10-1: Existing Land Use Summary

Land Use	*Acres*	*Percent*
Single-family Residential	1051.4	18.9%
Multi-family Residential	319.6	5.7%
Commercial	250.6	4.5%
Industrial	76.8	1.4%
Office	246.9	4.4%
Public/Institutional	1359.9	24.4%
Parks and Open Space	912.3	16.4%
Utilities	23.9	0.4%
Transportation & Misc.	937.5	16.8%
Vacant	398.8	7.0%
Total	**5568.7**	**100.0%**

Source: Monterey County Assessor.

Existing Conditions

In 2023, there were 13,825 housing units and 26,845 residents in the Planning Area according to the California Department of Finance Population and Housing Estimates.[1] There were 22,246 jobs in the Planning Area according to the State of California Employment Development Department.[2]

Growth Projections

Housing

Future housing forecasts represent the implementation of the Proposed Plan and the City of Monterey's obligation to meet their Regional Housing Needs Allocation (RHNA) share of 3,654 housing units from 2023 to 2031. The Proposed Plan would add a total of 5,787 housing units between 2023 and 2031, with the total number of housing units in the Planning Area projected to increase from 13,825 to 19,612, by approximately 42 percent. For the purposes of a conservative estimate of potential environmental impacts, this draft EIR considers 5,800 new housing units at buildout in 2031.

However, Association of Monterey Bay Area Governments (AMBAG)'s Moving Forward Monterey Bay Appendix A 2022 Regional Growth Forecast (RGF) forecasts an addition of 912 units

[1] California Department of Finance. May 2023. E-1 Population and Housing Estimates for Cities, Counties, and the State January 1, 2022 and 2023. Available: https://dof.ca.gov/forecasting/demographics/estimates-e1/. Accessed: September 25, 2023.

[2] California Department of Employment Development. Current Month Labor Force. Available:

for the City of Monterey from 2015 to 2045, from 13,637 to 14,549. Consequently, Appendix A 2022 RGF does not align with and accommodate Monterey's RHNA and does not depict accurate growth projections for the City itself as noted in Table 3.10-3. More information can be found in Regulatory Setting of AMBAG Moving Forward Monterey Bay 2045 below.

Population

As mentioned above, future housing forecasts represents the implementation of the Proposed Plan. Population forecasts were derived from the future housing forecasts by applying an average household size and residential vacancy rate. An average household size of 1.94 and vacancy rate of 9.5 percent were used to calculate the population forecasts. As such, between 2023 and 2031, the city's population is projected to increase by approximately 38 percent, growing from 26,845 to 36,949. For the purposes of a conservative estimate of potential environmental impacts, this draft EIR considers 10,125 new residents at buildout in 2031.

Employment

Regional employment projections by the AMBAG assumed there were 38,133 jobs in the city in 2015, as shown on Table 3.10-2. AMBAG's Moving Forward Monterey Bay Appendix A 2022 RGF projects that the Monterey County's employment will add 38,169 jobs between 2015 and 2045, for a total of 263,437 jobs by 2045. Specifically for the City of Monterey, the RGF forecasts an addition of 7,346 jobs from 2015 to 2045, from 38,133 to 45,509. However, data drawn from the United States Census Bureau demonstrates there were 24,980 jobs in 2015, which indicates the regional employment projections substantially overestimated the number of jobs in Monterey in 2015 by 53 percent. As a result, the employment assumptions were adjusted to use United States Census data as the baseline as it accurately captured the number of jobs in 2015. The updated number of jobs is 24,980 and is reflected in Table 3.10-3. After the baseline was calculated, the increment of job growth from the regional projections was applied to get future employment that accurately reflects the planning period. Between 2023 and 2031, the city's total number of jobs is projected to increase to 24,237, a net increase of 1,991, or approximately 8.9 percent. For the purposes of a conservative estimate of potential environmental impacts, this draft EIR considers 1,995 new jobs at buildout in 2031.

Table 3.10-2: Subregional Employment Forecast, 2015–2045

								Change in 2015-2045	
Geography	*2015*	*2020*	*2025*	*2030*	*2035*	*2040*	*2045*	*Number*	*Percent*
Monterey County	225,268	243,015	245,054	249,613	253,918	258,553	263,437	38,169	17%
Carmel-By-The-Sea	3,353	3,566	3,593	3,674	3,752	3,833	3,915	562	17%
Del Rey Oaks	705	748	753	774	794	815	834	129	18%
Gonzales	5,764	6,326	6,382	6,533	6,660	6,788	6,920	1,156	20%
Greenfield	7,227	7,882	7,948	8,061	8,177	8,298	8,423	1,196	17%
King City	7,573	8,195	8,248	8,371	8,511	8,669	8,832	1,259	17%
Marina	6,107	6,548	6,621	6,765	6,899	7,055	7,217	1,110	18%
Monterey	**38,133**	**40,989**	**41,527**	**42,506**	**43,452**	**44,465**	**45,509**	**7,376**	**19%**
Pacific Grove	7,470	8,016	8,061	8,152	8,244	8,343	8,445	975	13%
Salinas	73,009	78,874	79,577	81,079	82,505	84,044	85,683	12,674	17%
Sand City	1,966	2,092	2,102	2,151	2,188	2,224	2,259	293	15%
Seaside	9,667	10,476	10,589	10,833	11,062	11,290	11,543	1,876	19%
Soledad	8,532	9,010	9,079	9,161	9,235	9,333	9,462	930	11%
Unincorporated	55,762	60,293	60,574	61,553	62,439	63,396	64,395	8,633	15%

Source: AMBAG, 2022 Regional Growth Forecast, Table 7: Subregional Employment Forecast

Table 3.10-3 presents the anticipated housing projections for the Planning Area between 2023 and 2031 based on buildout projections developed for the Proposed Plan.

Table 3.10-3: Planning Area Population and Job Growth Projections, 2015–2031

	2015	*2023*	*2031*	*Net Increase during Planning Period (2031-2023)*	*Percent Change during Planning Period (2031-2023)*
Population	28,283	26,845	38,013	11,168	41.60%
Housing Units	13,650	13,825	19,612	5,787	41.86%
Jobs	24,980	20,743	22,734	1,991	9.60%

Source: Dyett & Bhatia, 2023; California Department of Finance, 2023; State of California Employment Development Department, 2023, United States Census Bureau American Community Survey Table DP05 and the OnTheMap tool, 2015.

REGULATORY SETTING

Federal

There are no federal regulations applicable to land use, population, and housing in the Planning Area. State, regional, and local regulations are discussed below.

State

California Government Code

State law requires each city, town, and county in California to adopt a General Plan containing at least seven elements, including a Housing Element. Regulations regarding Housing Elements are found in the California Government Code sections 65580-65589. Although the Housing Element must follow State law, it is by its nature a local document. The focus of the Monterey Housing Element is on the needs and desires of Monterey residents and workers as they relate to housing in the community. Within these parameters, the intent of the Element is also to comply with State law requirements.

Unlike the other mandatory General Plan elements, the Housing Element requires periodic updating and is subject to detailed statutory requirements and mandatory review by the State of California Department of Housing and Community Development — HCD. According to State law, the Housing Element must:

- Provide goals, policies, quantified objectives, and scheduled programs to preserve, improve and develop housing.
- Identify and analyze existing and projected housing needs for all economic segments of the community.
- Identify adequate sites that will be zoned and available within the Housing Element planning period — between 2023 and 2031 — to meet the City's share of regional housing needs at all income levels.
- Be submitted to HCD to review and certify that the Housing Element complies with State law.

State law establishes detailed content requirements for Housing Elements and establishes a regional "fair share" approach to distributing housing needs throughout all communities in the Association of Monterey Bay Area Governments (AMBAG) region. The law recognizes that for the private sector and non-profit housing sponsors to address housing needs and demand, local governments must adopt land use plans and implementing regulations that provide opportunities for, and do not unduly constrain, housing development.

Sustainable Communities and Climate Protection Act of 2008 (Chapter 728, Statutes of 2008)

The Sustainable Communities and Climate Protection Act of 2008, otherwise known as Senate Bill (SB) 375, requires the integration of land use, housing, and transportation planning to achieve regional greenhouse gas (GHG) emission reductions, as adopted by the California Air Resources

Board. SB 375 requires Metropolitan Planning Organizations (MPOs) to develop a Sustainable Communities Strategy (SCS)—a new element of the Regional Transportation Plan (RTP)—to plan for achieving GHG reduction targets. The SCS must demonstrate attainment of the regional GHG emissions reduction targets while accommodating the full projected population of the region.

Regional

AMBAG Moving Forward Monterey Bay 2045

The Association of Monterey Bay Area Governments (AMBAG), the regional Metropolitan Planning Organization (MPO) and Council of Governments (COG), adopted the 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) for the Monterey Bay Area in June 2022. The MTP/SCS named Moving Forward Monterey Bay 2045 is a comprehensive plan that coordinates land use patterns and transportation investments with the objective of developing an integrated, multimodal, and equitable transportation system for the AMBAG region, which includes Monterey, Santa Cruz, and San Benito counties.

Moving Forward Monterey Bay focuses on six key goals—Access and Mobility, Economic Vitality, Environment, Healthy Communities, Social Equity, and System Preservation and Safety—outlining transportation management strategies and future land use and development patterns to improve the transportation system to meet the diverse needs of the region through 2045. Access and Mobility focuses on convenient, accessible, and reliable travel options while maximizing productivity for all people and goods in the region. Economic Vitality seeks to raise the region's standard of living by enhancing the performance of the transportation system. Key goal Environment centers the promotion of environmental sustainability and protection of the natural environment. Healthy Communities aims to protect the health of AMBAG's residents, foster efficient development patterns that optimize travel, housing, and employment choices and encourage active transportation. Social Equity focuses on the providing an equitable level of transportation services to all segments of the population, while System Preservation and Safety centers on the preservation and sustainability of a safe regional transportation system.

One of the main goals of Moving Forward Monterey Bay is to reduce GHG emissions from cars and light-duty trucks through 2050 to meet State goals for 2035 and 2050 GHG emissions reduction targets. As described above, under SB 375, COGs such as AMBAG must develop an SCS as part of the RTP. Moving Forward Monterey Bay 2045 functions as both the SCS and the RTP for the region. To reduce GHG emissions, Moving Forward Monterey Bay promotes increased density via infill development and mixed-use in existing commercial corridors in combination with high quality transit service, that is bus service that has headways of 15 minutes or less during the peak period or rail service. As part of the MTP/SCS process, AMBAG worked with local jurisdictions to update Opportunity Areas. Opportunity Areas are places in the region with the highest chance for successful sustainable growth in the future; they are generally located where Transit Priority Areas and Economic Development Areas within the AMBAG region overlap. This effort also identified Transit Priority Areas as locations that have both supportive land use densities and high-quality transit service/connections for each Opportunity Area. Within the City of Monterey, the MTP/SCS identified the following Opportunity Areas, which correspond to several of the Opportunity Areas identified in the Proposed Plan: Lighthouse (AMBAG Area MO-1), Downtown (AMBAG Area MO-2), North Fremont (AMBAG Area MO-3), and Garden Road (AMBAG Area MO-4).

Moving Forward Monterey Bay Appendix A 2022 RGF projects that the region's population will grow by approximately 107,500 people between 2015 and 2045, for a total population of just under 869,800 in 2045. The RGF also projects that the region will add 65,500 jobs between 2015 and 2045, for a total of just over 442,800 jobs by 2045. Specifically for the City of Monterey, the RGF forecasts an addition of 7,346 jobs from 2015 to 2045, from 38,133 to 45,509. In terms of population, the RGF forecasts an addition of 1,553 people from 2015 to 2045, from 28,086 to 29,639. In terms of housing units, the RGF forecasts an addition of 912 units from 2015 to 2045, from 13,637 to 14,549. Consequently, Appendix A 2022 RGF does not accommodate Monterey's RHNA and does not depict accurate growth projections for the City itself as noted in Table 3.10-3.

AMBAG Regional Housing Needs Allocation

The Regional Housing Needs Allocation (RHNA) process is intended to ensure that adequate housing is available for all income groups in communities throughout California. The California Department of Housing and Community Development (HCD) determines the regional need based on population projections and other factors including rates of vacancy, overcrowding, and cost-burden. Population projections and other factors are required to distribute the region's share of statewide need to cities and counties within its jurisdiction. The purpose of the RHNA is to allocate a share of the Monterey Bay Area's projected housing need to cities and counties by household income group, categorized as "very low," "low," "moderate," and "above moderate." According to the Draft 2023–2031 RHNA, AMBAG has determined that Monterey's share of regional housing need for the period from December 15, 2023 through December 15, 2031 would be 3,654 units. Approximately 1,177 of these units would be allocated as housing affordable to very low-income households, 769 units would be allocated for low income households, 462 units would be allocated to moderate income, and 1,246 units would be allocated for above moderate income households.[3] The AMBAG Executive Board adopted the Final 6th Cycle RHNA Plan in October 2022.

Local

City of Monterey General Plan 2005 (General Plan)

Adopted on January 2005, the City of Monterey General Plan is the City's long-range planning document that represents the community's vision for future development. It contains twelve elements with goals and policies to guide development in the Planning Area, including Urban Design, Land Use, Circulation, Housing, Conservation, Open Space, Safety, Noise, Economic, Social, Historic Preservation, and Public Facilities. The Monterey General Plan envisions the Planning Area as a small-scale residential community beside the Bay, framed by a forested hill backdrop and drawing its charm from a rich historical background, certain commercial enterprises, and natural scenic beauty.

[3] Association of Monterey Bay Area Governments. October 2022. Final 6th Cycle Regional Housing Needs Allocation (RHNA) Plan 2023-2031. Available: https://www.ambag.org/sites/default/files/2023-05/PDFA_AMBAG%20RHNA%202023-2031_Final%20Plan_051823.pdf. Accessed: September 26, 2023.

2015-2023 Housing Element

The Housing Element is one of the State-mandated elements that must be included in the City's General Plan. State law stipulates that the Housing Element include certain items, such as a Housing Needs Assessment; goals, policies and objectives regarding housing in Monterey; and implementation programs to work toward achieving those goals. In May 2015, the City adopted the 2015-2023 Housing Element Update to cover the eight-year planning period from December 2015 through December 2023. The Proposed Plan is a comprehensive update to the 2015-2023 Housing Element.

Monterey City Code

The Monterey City Code contains many of the ordinances for the City of Monterey. The City Code is organized by chapters, articles, divisions, and sections, and includes the City's Zoning Ordinance (Chapter 38 of the Monterey City Code). Detailed zoning regulations—including permitted and conditional uses, and development regulations—including provisions related to building height, bulk, and massing—are directly integrated within the Monterey Zoning Ordinance. Zoning regulations most relevant to land use, population, and housing are in the Zoning Ordinance.

The City's Zoning Ordinance (Chapter 38 of the Monterey City Code) divides the community into base and overlay districts, specifying the uses that are permitted, conditionally permitted, and, in some instances, uses that are specifically prohibited within each district. Each zoning district has development standards that are designed to protect and promote the health, safety, and general welfare of the community. Within a typical district, there are regulations related to land use, lot size, coverage, building heights, parking, landscaping, and design criteria. The City Code also includes an Affordable Housing Ordinance (Chapter 8, Article 1, Low- and Moderate-Income Housing) which requires that all new housing developments consisting of six or more units to make 20 percent of the proposed units available to, and affordable to, very low-, low-, and moderate-income households.

Specific Plans

The following neighborhood and specific plans adopt a vision, goals, policies, and standards within the City's mixed-use neighborhoods to ensure preservation of the City's historic resources citywide.

Highway 68 Area Plan

The Highway 68 Area Plan was adopted in June 1984 and encompasses 4,943 acres including Tarpey Flats, Monterra, Laguna Seca, and Aguajito areas. The plan describes goals and policies that will guide the development of the Highway 68 Area that protects current and future Monterey residents from adverse impacts of Highway 68 development, preserve the Monterey environment and quality of life, meet the social needs of Monterey citizens, and support the Monterey economy. The plan claims a maximum of 3,550 dwelling units will be permitted in the Monterra, Laguna Seca, and Aguajito areas, which are predominately located outside of the City's incorporated area and were envisioned for annexation. Specifically, for the Monterey Peninsula Unified School District (MPUSD) 50-acre site, the Highway 68 Area Plan calls for the development of 300 low-income and

moderate-income housing units. No specific projections are discussed for commercial, or office uses, but a compatible mix of commercial and residential uses are encouraged.

Goal B. To increase the supply of housing units to ease the housing needs of current and future residents of the City of Monterey while protecting the environmental and scenic qualities of the Monterra area.

Policy 1. A maximum of 1,700 dwelling units will be permitted on Monterra.

Downtown Specific Plan

The Downtown Specific Plan was adopted in October 2013 and most recently amended in July 2023. The Planning Area encompasses approximately 106 acres between Downtown and East Downtown. The Plan aims to develop a clean, enticing, and safe environment that provides gathering spaces and draws visitors into the area and offers a variety of services, events, and retail establishments. It establishes nine districts in the Planning Area and identifies several opportunity sites for commercial and residential development. The Alvarado District has the potential to build housing at a higher density, while Pierce has several small lots that could also be developed into residential uses. Proposed infrastructure projects include improvements to the Alvarado Mall, Simoneau Plaza, Custom House Plaza, and the addition of sidewalk seating. Downtown buildout projections include 912 residential units, with the caveat that limited water sources will restrict the scenario to 260 units, and a total of 50,000 square feet of commercial use.

Lighthouse Specific Plan

The Lighthouse Specific Plan was adopted in September 2016, and further amended June 2023. The Plan guides the future development of the mixed-use area along Lighthouse Avenue and Foam Street, containing residences, retail shops, and services. The Planning Area includes the Lighthouse Avenue and Foam Street corridors, bordered by the Pacific Grove City Limits at David Avenue to the Lighthouse Tunnel and connecting side streets adjacent to the Lower Presidio area. The main objective of the Lighthouse Specific Plan is to guide development of a transit-oriented mixed-use community and revitalized destination point. Buildout projections include accommodating up to 113 dwelling units (as part of the 260 units projected by the 2005 General Plan) and a 35,000-square-foot net increase in total commercial land use. The Plan includes design objectives, guidelines, and standards for land use and development provides guidance for improved bicycle boulevards, streetscapes, sewer collection, storm drainage, low impact design, and utility undergrounding.

North Fremont Specific Plan

The North Fremont Specific Plan was adopted in April 2014 and amended in August 2016. The Planning Area consists of approximately 48 acres on both sides of North Fremont Street from the eastern City limits west to State Highway 1. The area is designated by the City's General Plan as one of three "Mixed-Use Neighborhoods," including Downtown and Cannery Row and Lighthouse Avenue described earlier. The Plan aims to direct future population growth into mixed use areas by emphasizing attractive design concepts and development guidelines that will provide unique character, improved pedestrian experience, commercial opportunities, connections to the

neighborhood, and bus transportation. Buildout projections list 130 new dwelling units on North Fremont Street and 50,000 square feet of new commercial development. The Plan encourages residential development as part of mixed-use projects and specifies alternatives for streetscapes, parking, and circulation as the area carries significant traffic off of Highway 1.

Impact Analysis

For the purposes of this EIR, a significant impact would occur if implementation of the proposed Plan would:

Criterion 1: **Physically divide an established community;**

Criterion 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;**

Criterion 3: **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); or**

Criterion 4: **Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.**

METHODOLOGY AND ASSUMPTIONS

Potential impacts resulting from implementation of the Proposed Plan were evaluated based on relevant information from the planning and policy documents listed in the Regulatory Setting section of this chapter and in consideration of Proposed Plan policies.

RELEVANT PROPOSED GOALS AND POLICIES

The Proposed Plan contains the following goals and policies relevant to land use, population, and housing. The full text of proposed Housing Element programs is included in Appendix B for reference:

Land Use Element

Goal A: Establish a compact, sustainable land use and development pattern with boundaries defined by the Santa Lucia Mountains and the Monterey Bay.

> Policy A.1: Foster an integrated mix of employment, housing, educational, visitor-oriented, entertainment, recreational and open space uses throughout the city to support a complete community.

Policy A.2: Balance levels of employment and housing within the community to reduce commute times, improve air quality, and provide more opportunities for those who work in Monterey to live locally.

Policy A.4: Focus new development primarily in commercial districts and mixed use neighborhoods so as to support the vitality of existing businesses, optimize the use of utility infrastructure, and reduce vehicle trip frequency, length, and associated emissions.

Policy A.8: Reinforce the visual, pedestrian, and bicycle connection between City neighborhoods and the Bay so that residents have exceptional non-automobile access to the Bay.

Goal B: Create and nurture a series of distinctive, walkable, mixed use neighborhoods in Monterey.

Policy B.1: Develop and implement specific plans and zoning to guide development in the mixed use neighborhoods, recognizing that each mixed use neighborhood is unique and requires tailored development and design standards, multi-modal improvements, and infrastructure financing strategies.

Policy B.5: Create an attractive, safe environment for bicycles and pedestrians that promotes "micro-mobility" and connectivity to and within the mixed use neighborhoods.

Policy B.6: Encourage site designs that create an active street frontage and screen parking from the frontages of major thoroughfares.

Housing Element

Housing Goal #1. Increase housing supply and facilitate production of at least 3,654 new homes by 2031.

Policy 1.2 Promote infill development in adopted Specific Plan areas where high density residential development can be accommodated in proximity to employment, shopping, transit, recreation, and other services.

Policy 1.3 Recognizing that infill development alone will not be sufficient to meet the City's RHNA obligations, plan holistically to integrate new housing in context sensitive ways on larger vacant properties in the southeast of Monterey to take advantage of opportunities where they exist.

Policy 1.6 Continue to partner with and support non-profit and for-profit organizations in their efforts to construct, acquire, and improve housing to accommodate households with lower and moderate incomes.

Policy 1.7 Provide opportunities and facilitate innovative housing approaches in financing, design, construction, and types of housing to increase the variety and supply of lower and moderate-income housing.

Program 1-B **Multi-Family Residential Overlay Amendments.**

Program 1-E **Education Workforce Housing Overlay.**

Program 1-F **Congregational Overlay.**

Program 1-H **Fort Ord/Ryan Rach Specific Plan.**

Program 1-K **Employer Sponsored Housing.**

Program 1-I **Highway 68 Area Plan Update.**

Housing Goal #2. **Remove or reduce barriers to housing production in Monterey and address the regulatory, process, and market factors that limit and adversely affect affordability.**

Policy 2.3 Develop zoning standards to encourage smaller multi-unit housing types including fourplexes, townhouses, and rowhouses.

Program 2-B **Permit Thresholds for Multi-Family Projects.**

Program 2-E **Revise Parking Requirements.**

Housing Goal #3. **Provide for fair and equal housing opportunities for all persons, regardless of protected characteristics such as age, sex, family status, race, creed, color, or national origin, etc.**

Policy 3.3 Promote a wider variety of housing types in High Resource areas of Monterey.

Program 3-C **Local Density Bonus.**

Program 3-E **Home Sharing and Tenant Matching.**

Program 3-F **Affirmative Marketing of Affordable Housing Opportunities.**

Housing Goal #4. **Take action to prevent homelessness and address the needs of unhoused people.**

Housing Goal #5. **Monitor the effectiveness of housing programs to ensure that they respond to housing needs.**

Program 6-D **Development and Replacement Unit Requirements.**

Circulation Element

Goal a. A transportation network that is complemented by land uses that are easily accessible by walking, bicycling, or utilizing transit.

Policy a.10. Require proposed developments to provide ADA improvements, sidewalks or pedestrian connections, bicycle facilities, or transit facilities which would provide active transportation access to the development.

Goal b. A safe and well-maintained roadway system that efficiently moves people and goods across all modes of transportation.

Policy b.1. Create and maintain a roadway system of "Complete Streets" that is safe and easy to use for all modes of transportation.

Policy b.6. Establish a list of guidelines and considerations for Complete Streets in the City's multimodal plan, maximizing safety through design.

Goal c. A safe, reliable, connected, and integrated bicycle transportation network that encourages bicycling as a primary mode of transportation for residents, employees and visitors.

IMPACTS

Impact 3.10-1 Development under the Proposed Plan would not physically divide an established community. *(No Impact)*

The physical division of an established community typically refers to the construction of a linear feature, such as an interstate highway or railroad tracks, or removal of a means of access, such as a local bridge, that would affect mobility within an existing community or between a community and outlying area. However, physical division could also occur if large buildings were designed in such a way so as to create "walls" or oriented in such a way that would obstruct movement or circulation on commonly used routes. The Proposed Plan does not involve the construction of a linear feature or other barrier as described above and would not remove any means of access or mobility.

The Proposed Plan includes numerous policies that would foster connectivity within the community. Proposed Land Use Element Policy A.4 seeks to focus new development in commercial areas and mixed use neighborhoods, while Policy B.1 calls for the development and implementation of specific plans to guide development in infrastructure improvements in mixed use neighborhoods. Implementation of these policies would increase walkability, bikability and connectivity by fostering mixed use development. Implementation of proposed Land Use Element policies A.1, which promotes balance of uses in the community, and A.2, which seeks to balance levels of employment and housing within the City and reduce in/out commuting, would also support and increase connectivity within the Planning Area. Other policies that promote connectivity include: Policy A.8, which seeks to reinforce connectivity to the Bay; Policy B.5 which promotes a safe and attractive environment for bicycles and pedestrians; and Policy B6, which focuses on active street frontages. Proposed Circulation Element Policy A.10 promotes a transportation network complemented by land uses that are easily accessible by walking, bicycling, or utilizing transit and requires ADA improvements, sidewalks, pedestrian connections, and bicycle facilities. Proposed policies that support Circulation Element Goals B and C also seek to foster a safe, well-maintained, reliable, and integrated roadway, bicycle, and pedestrian network that both efficiently moves people and goods across all modes of transportation, but also increases connectivity between neighborhoods and major city destinations.

Therefore, overall, because the Proposed Plan would not introduce any physical barriers to the Planning Area and would generally improve connectivity for all users, it would result in no impact with respect to physically dividing an existing community.

Mitigation Measures

None required.

Impact 3.10-2 Development under the Proposed Plan would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. *(No Impact)*

Regional Plans

In June 2022, AMBAG adopted Moving Forward - Monterey Bay 2045, the Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS). The MTP/SCS 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 2045. It is a comprehensive planning effort that coordinates land use patterns and transportation investments with the objective of developing an integrated, multimodal and equitable transportation system. The MTP/SCS projects that the AMBAG region will grow more slowly than the state and nation, adding approximately 42,000 new homes and 65,000 new jobs by 2045. Appendix A of the MTP/SCS provides a breakdown of growth projections by jurisdiction, with the City of Monterey projected to add 7,376 new jobs and 912 new homes between 2015 and 2045.

As described above, the MTP/SCS was prepared prior to the adoption of the RHNA allocations for the AMBAG region and does not reflect the subsequent allocation of housing units to jurisdictions for the 2023-31 period. The City of Monterey has a legal obligation to plan to accommodate at least 3,654 new homes during the planning period in order to meet its RHNA obligations, which is more than four times the number of new homes the MTP/SCS projects for the City over the 20-year period from 2015-2045. Additionally, the MTP/SCS assumes a baseline number of jobs in the City which is nearly 50 percent higher than indicated in US Census data. Therefore, the Proposed Plan appropriately deviates from the growth projections in the MTP/SCS and is based on growth projections that reflect the City's assessed share of the 2023-31 RHNA and a corrected employment baseline. Implementation of the Proposed Plan is projected to result in up to 5,800 new homes and 1,995 new jobs in Monterey by 2031. Projected housing growth reflects the City's RHNA allocation of 3,654 new homes with a buffer, as required to ensure the City can navigate the "no net loss" provisions of State law.[4] Projected employment growth represents the increment of jobs growth for the City assumed in the MTP/SCS for the 2023-31 period, but the total number of jobs resulting in

[4] The "no net loss" provisions of State Planning and Zoning Law (Gov't Code § 65863) provide that if housing developments are approved on sites in the Housing Element with fewer lower income units than projected, the City must demonstrate that it still has enough sites designated in the Housing Element to accommodate the City's remaining need for lower income housing.

2031 is projected to be lower than in the MTP/SCS, reflecting the correction to the baseline employment levels.

Even though the Proposed Plan appropriately uses growth projections that differ from the MTP/SCS, it is nevertheless broadly consistent with the policies and implementing strategies of the MTP/SCS, as shown on Table 3.10-4. The Proposed Plan incorporates numerous strategies to accommodate infill development and focus new growth so as to balance levels of employment and housing within the community to reduce commute times, improve air quality, and provide more opportunities for those who work in Monterey to live locally. It also incorporates "complete streets" strategies and seeks to promote safety and security along transit access routes. Additionally, the Proposed Plan would support the performance outcomes identified in the MTP/SCS, in that it would reduce commute travel times, increase the percentage of the population in proximity to high quality transit, promote active transportation, and increase the percentage of low income residents who live within a 1/2-mile of transit.

Table 3.10-4: Moving Forward Monterey Bay Strategies Applicable to the Proposed Plan

Implementation Strategies	*Incorporation into Proposed Plan Policies*
Land Use and Housing	
Encourage infill housing by working with local jurisdictions to update municipal policies, such as reduced fees tax credits or exemptions, graduated density bonuses, and reduced parking requirements for redevelopment, affordable housing, or mixed use in Opportunity Areas.	Proposed Land Use Element Policies: Policy A.2: Balance levels of employment and housing within the community to reduce commute times, improve air quality, and provide more opportunities for those who work in Monterey to live locally. Policy A.4: Focus new development primarily in commercial districts and mixed use neighborhoods so as to support the vitality of existing businesses, optimize the use of utility infrastructure, and reduce vehicle trip frequency, length, and associated emissions. Proposed Housing Element Programs: Housing Element (HE) Program-1-C: Specific Plan Updates. HE Program 1-D: Permit Streamlining Pilot Project. HE Program 1-E: Education Workforce Housing Overlay. HE Program 1-G: Surplus Municipal Parking Facilities. HE Program 2-E: Revise Parking Requirements. HE Program 2-L: Moratorium on Vehicle Storage. HE Program 3-C: Local Density Bonus.

Table 3.10-4: Moving Forward Monterey Bay Strategies Applicable to the Proposed Plan

Implementation Strategies	*Incorporation into Proposed Plan Policies*
Meet state requirements to complete the Regional Housing Needs Assessment by quantifying existing and future housing needs resulting from population, employment, and household growth.	HE Program 1-A: Inventory of Available Sites. HE Program 1-B: Multi-Family Residential Overlay Amendments. HE Program 1-C: Specific Plan Updates. HE Program 1-D: Permit Streamlining Pilot Project. HE Program 1-E: Education Workforce Housing Overlay. HE Program 1-F: Congregational Overlay. HE Program 1-G: Surplus Municipal Parking Facilities. HE Program 1-H: Fort Ord/Ryan Ranch Specific Plan. HE Program 1-I: Highway 68 Area Plan Update. HE Program 1-J: SB 9 Housing Ordinance. HE Program 1-K: Employer Sponsored Housing.
Transportation	
Facilitate local jurisdiction adoption and implementation of a complete streets policy by recommending adoption of the region's guidelines. Encourage local jurisdictions to implement design principles consistent with the regional complete streets guidelines whenever completing local streets and road projects. Initiate a technical assistance program to help local agencies develop street designs or implement complete streets that are sensitive to their surroundings and context.	Circulation Element (CE) Goal b. A safe and well-maintained roadway system that efficiently moves people and goods across all modes of transportation. CE Policy b.1: Create and maintain a roadway system of "Complete Streets" that is safe and easy to use for all modes of transportation. CE Policy b.6: Establish a list of guidelines and considerations for Complete Streets in the City's multimodal plan, maximizing safety through design.
Improve safety and security at crosswalks, transit stops and along main access routes to transit, including rural areas, with higher priority for low income, minority and high crime areas.	CE Goal d. A safe, accessible, connected and integrated pedestrian transportation network that encourages walking as a primary mode of transportation for residents, employees and visitors. CE Policy d.2: Design intersections to improve pedestrian safety and mobility. CE Policy d.5: Establish Crosswalk Guidelines which provide standards for the strategic placement of pedestrian crossings throughout the City in the City's multimodal plan, as well as the basis for relocating and eliminating crosswalks.
Support projects that improve mobility and accessibility for seniors and people with disabilities.	CE Policy i.15: Promote social justice and equity by prioritizing projects that increase mobility options to disadvantaged communities within the City and the region.

Table 3.10-4: Moving Forward Monterey Bay Strategies Applicable to the Proposed Plan

Implementation Strategies	*Incorporation into Proposed Plan Policies*
Environment	
Assess the vulnerability of critical infrastructure to the impacts of climate change.	CE Policy i.4: Identify and adapt transportation infrastructure vulnerable to natural disasters, climate change, or extreme weather events.

Source: Moving Forward Monterey Bay, 2022; Dyett & Bhatia, 2023.

As shown in Table 3.10-4, the Proposed Plan would support the key objectives of Moving Forward Monterey Bay throughout the Planning Area, including the goal of fostering housing and jobs in proximity to transit in order to reduce VMT and GHG emissions. Therefore, the Proposed Plan would not conflict with Moving Forward Monterey Bay.

Airport Land Use Compatibility Plan

The Monterey Regional Airport is located outside but immediately adjacent to the southeastern boundary of the Planning Area. Airport operations are governed by an Airport Land Use Compatibility Plan (ALUCP), developed to ensure the safety and welfare of residents, businesses, and airport users while supporting the continued operation of the airport. The ALUCP establishes seven airport safety zones that cover almost all land within the City of Monterey. Within the six zones closest to the airport, ALUCP land use compatibility standards restrict the development of land uses that could pose particular hazards to the public in the event of an aircraft accident. The seventh safety zone is the Airport Influence Area (AIA), within which the risk of aircraft accident is considered to be low. Development in the vicinity of the airport or with the potential to extend into navigable airspace or impede taking off or landing must be referred to the Airport Land Use Commission for compatibility review.

The proposed Land Use Element incorporates a new Airport Compatibility Overlay with performance standards oriented to protecting airport operations and ensuring public safety. The purpose of the overlay is to resolve conflicts with respect to permitted development types and intensities on properties in the vicinity of the Monterey Regional Airport that have resulted from an update to the ALUCP prepared by the County in 2019. The overlay would be applied to the General Plan Land Use map as shown on Figure 2-4 and would permit continuance of existing uses and allow for new development or expansion of existing uses only as consistent with the ALUC infill exemption; establish requirements for ALUC notification and project approval; and incorporate new mitigation requirements for interior noise levels by land use type. Additionally, with implementation of Policy C.2, the City would refer all projects that may penetrate aeronautical surfaces identified in the ALUCP or impede approach/departure visibility within the Monterey Regional Airport Influence Area to the Airport Land Use Commission for consistency review prior to issuing local development permits; and through Policy C.3, would reduce the potential for bird strikes, and electromagnetic interference, and glare in order to help ensure that development adjacent to the airport would not adversely affect airport operations. Therefore, the Proposed Plan would not conflict with the ALUCP.

Local Plans and Regulations

Local land use plans and regulations that cover the Planning Area include the City of Monterey General Plan, the City Code, and specific plans. The Proposed Plan is a targeted update to the 2005 General Plan, focused on the Land Use, Housing, Circulation, and Safety Elements. The goals and policies of other elements have been retained. The proposed Land Use Element builds on the key themes of the 2005 General Plan with a policy framework and land use classifications that seek to establish a compact, sustainable land use and development pattern and to create and nurture a series of distinctive, walkable, mixed use neighborhoods in Monterey. A new Mixed Use Neighborhood classification which would apply to locations identified in the existing General Plan to accommodate high density infill housing, including the Downtown, North Fremont, and Lighthouse Avenue Specific Plan Areas, as well as in Fort Ord/Ryan Ranch opportunity area. Through proposed Policy A.1, the City would seek to foster an integrated mix of uses throughout the Planning Area; through Policy A.2, the City would seek to balance levels of employment and housing; and through Policy A.4, the City would focus new development in commercial districts and mixed use neighborhoods. Implementation of these policies would to reduce commute times, improve air quality, and provide more opportunities for those who work in Monterey to live locally - key objectives from the 2005 General Plan. Therefore, the Proposed Plan reinforces the overall development concept articulated in the 2005 General Plan, with adjustments as needed to ensure the Land Use Diagram has adequate capacity to accommodate the City's RHNA obligations.

The proposed Housing Element is consistent with the Monterey General Plan, which seeks to encourage housing, including mixed-use housing to meet the needs of business (Economic Element Goal D), as well as preserve existing and encourage development of new family housing in Monterey (Social Element Policy a.1). The Housing Element identifies zoning amendments needed to accommodate RHNA. These amendments generally increase capacity and facilitate housing development in areas identified in the existing General Plan as appropriate for development. As such, the amendments are generally consistent with the vision for promoting distinctive, walkable, mixed use neighborhoods within the City limit while also preserving and enhancing the natural and scenic resources that contribute to community character. The zoning amendments would be completed after adoption of the Proposed Plan.

The proposed Circulation Element addresses new State legislation and includes updates to the City's goals and policies as they relate to transportation and land use; the street system; the bicycle, pedestrian, and transit network; vehicle miles traveled; existing parking facilities; transportation safety; environmental and social justice; transportation system management; and Airport transportation. The proposed Safety Element incorporates new data, information, and maps related to flooding, sea level rise, tsunamis, wildfires, landslides, and seismic hazards, as well as strategies to increase emergency preparedness, response, and evacuation capacity. The proposed Safety Element also incorporates the 2022 City of Monterey Annex to the Monterey County Multi-Jurisdictional Hazard Mitigation Plan by reference, ensuring consistency across documents.

In addition to its General Plan, the City of Monterey has adopted specific plans for some areas within the City to tailor appropriate development standards and policies to individual neighborhoods, as described in the Regulatory Setting above. By State law, specific plans must be consistent with the General Plan. With implementation of the Proposed Plan, specific, targeted amendments to the standards in the Downtown, North Fremont, and Lighthouse Avenue Specific

Plans would be made as identified in proposed Housing Element Program 1-C to ensure consistency of the specific plans with the Proposed Plan. Other policies and standards in the specific plans would remain in effect, including policies and standards included in these specific plans adopted for the purpose of avoiding or mitigating an environmental effect.

Therefore, overall, implementation of the Proposed Plan would not conflict with regional, airport land use, or local plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Associated impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.10-3 Development under the Proposed Plan would not 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). *(Less than Significant)*

A project could induce substantial unplanned growth if it would involve the extension of roadway or utility infrastructure that would facilitate non-contiguous development in a previously undeveloped area, such as a new subdivision on agricultural land beyond the City's Sphere of Influence. The Proposed Plan would not involve such extensions of infrastructure. Rather, the Proposed Plan would facilitate residential, mixed use, and employment-oriented development within the City limit on previously developed land, land near employment centers such as the former Fort Ord, or in areas identified through previous City planning efforts as appropriate for development (such as within the boundaries of the Highway 68 Area Plan).

The Proposed Plan would result in up to 5,800 new homes and 1,995 new jobs in Monterey by 2031, and it incorporates numerous policies and programs to ensure that this growth is accommodated in an orderly fashion while minimizing adverse effects on the environment. Implementation of the proposed Land Use Element would involve fostering an integrated mix of employment, housing, educational, visitor-oriented, entertainment, recreational and open space uses throughout the city to support a complete community (Policy A.1); providing more opportunities for those who work in Monterey to live locally to reduce commute times and improve air quality (Policy A.2); focusing new development primarily in commercial districts and mixed use neighborhoods so as to support the vitality of existing businesses, optimize the use of utility infrastructure, and reduce vehicle trip frequency, length, and associated emissions (Policy A.3); and developing and implementing specific plans and zoning to guide development in the mixed use neighborhoods, with tailored development and design standards, multi-modal improvements, and infrastructure financing strategies for each mixed use neighborhood. The proposed Land Use Element also incorporates a new airport compatibility overlay, and Policy C.1 requires that new development be compatible with the standards for land uses, density, and intensity specified in the Airport Land Use Compatibility Plan (ALUCP) for the Monterey Regional Airport in order to promote public safety and minimize airport land use conflicts.

Further, the Proposed Plan would also involve implementation of Housing Element Program 1-C, under which the City would update standards in the Downtown, North Fremont, and Lighthouse Avenue Specific Plans to accommodate housing as needed to meet its RHNA obligations; Program 1-E, under which the City would adopt an educational workforce housing overlay and associated zoning standards to integrate faculty and staff housing on some MPUSD school campuses; Program 1-H, which involves the adoption of a specific plan for the former Fort Ord property to foster creation of a mixed-use village on a portion of the site, preserve areas of natural open space, identify infrastructure needs and financing mechanisms, and establish measures to ensure sustainable development and adequate resource protection; and Program 1-I, which involves amending the Highway 68 Area Plan to accommodate mixed income housing on the 50-acre MPUSD site and incorporate infrastructure financing mechanisms. As such none of the new development pursuant to the Proposed Plan would be unplanned.

As noted above, residential growth under the Proposed Plan would exceed regional projections because the AMBAG RTP/SCS did not fully accommodate the 2023-31 RHNA allocation for jurisdictions within the region, including the City of Monterey; however, non-residential growth under the Proposed Plan would be consistent with the AMBAG RTP/SCS. Further, the Proposed Plan incorporates policies and programs to ensure that planned residential and non-residential growth is accommodated in an orderly fashion and in a manner that promotes a sustainable development pattern and minimizes adverse environmental effects. Therefore, the Proposed Plan would not induce substantial unplanned growth. Associated impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.10-4 Development under the Proposed Plan would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. *(Less than Significant)*

The Proposed Plan would result in the construction of up to 5,800 new housing units by 2031, most of which would be accommodated on previously developed sites. Some of the sites identified in the proposed Housing Element contain existing housing units, which could be demolished and replaced with redevelopment. However, Program 6-D in the proposed Housing Element requires that any lower income units displaced with redevelopment on a non-vacant site identified in the Housing Element be replaced with units affordable to the same or lower income level as a condition of project approval. As such, replacement of any directly displaced lower income units would be required and the total net new units constructed pursuant to the Proposed Plan would far exceed the number of units that may be directly displaced. Indirect displacement resulting from development within the Planning Area could potentially occur through the process of neighborhood economic and demographic change in an existing area, which often results from real estate investment and increased demand from higher-income residents. However, existing City regulations and Proposed Plan policies and programs contain numerous anti-displacement measures that would help minimize or avoid the indirect displacement of people and housing as a result of Proposed Plan implementation. First, Chapter 8, Article 1 of the City Code established inclusionary zoning requirements for all new development projects proposing six or more units,

and Program 2-I of the proposed Housing Element would modify these requirements to stipulate that 10 percent of the new units in such projects must be for moderate income households and 10 percent must be for low income households. These requirements would apply to the majority of sites listed on the proposed Housing Element inventory, helping to ensure that at least 2,107 of the new homes constructed would be affordable to low and very low income households and at least 506 would be affordable to moderate income households, minimizing the potential for displacement of these groups. Further, the following programs from the proposed Housing Element would also help to reduce or avoid displacement: Program 3-A, under which the City would contract for fair housing and legal services to provide legal services and increase awareness of renters' rights; Program 4-B, under which the City would establish a rental assistance program that provides lower income renter households with recurring rental assistance at a fixed rate (known as a shallow subsidy) to help improve housing stability and prevent displacement; and Program 4-G under which the City would revise zoning to recognize single-room occupancy units as housing, helping to ensure an affordable source of housing that can prevent homelessness and displacement. Therefore, overall, implementation of the Proposed Plan would not displace substantial numbers of people or housing units and associated impacts would be less than significant.

Mitigation Measures

None required.

3.11 Noise

This section assesses potential environmental impacts related to noise from future development under the Proposed Plan, including those associated with noise standards, groundborne vibration, ambient noise levels, and airport noise. The section describes the characteristics, measurement, and physiological effects of noise and existing sources of noise in the Planning Area, as well as relevant federal, State, and local regulations and programs.

There were no comments on the Notice of Preparation related to noise.

Environmental Setting

PHYSICAL SETTING

Noise

Noise Characteristics and Measurement

Because of the technical nature of noise and vibration impacts, a brief overview of basic noise principles and descriptors is provided below.

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air). Noise is generally defined as unwanted sound (i.e., loud, unexpected, or annoying sound). Acoustics is defined as the physics of sound. In acoustics, the fundamental scientific model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. Acoustics addresses primarily the propagation and control of sound.

Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather

a broad band of frequencies varying in levels of magnitude, with audible frequencies of the sound spectrum ranging from 20 to 20,000 Hz. The typical human ear is not equally sensitive to this frequency range. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that deemphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to these extremely low and extremely high frequencies. This method of frequency filtering or weighting is referred to as A-weighting, expressed in units of A weighted decibels (dBA), which is typically applied to community noise measurements. Some representative common outdoor and indoor noise sources and their corresponding A-weighted noise levels are shown in Table 3.11-1.

An individual's noise exposure is a measure of noise over a period of time; a noise level is a measure of noise at a given instant in time. However, noise levels rarely persist at that level over a long period of time. Rather, community noise varies continuously over a period of time with respect to the sound sources contributing to the community noise environment. Community noise is primarily the product of many distant noise sources, which together constitute a relatively stable background noise exposure, with many of the individual contributors being unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding to the addition and subtraction of distant noise sources, such as changes in traffic volume. What makes community noise variable throughout a day, besides the slowly changing background noise, is the addition of short-duration, single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual.

Table 3.11-1: Typical Noise Levels in the Environment

Source of Noise	*A-Weighted Sound Pressure Level in Decibels*
Civil Defense Siren (100 feet in distance between source and listener)	130
Jet Takeoff (200 feet in distance between source and listener)	129
Riveting Machine	115
Rock Music Band	110
Piledriver (50 feet in distance between source and listener)	105
Ambulance Siren (100 feet in distance between source and listener)	100
Boiler Room	90
Printing Press Plant	89
Freight Cars (50 feet in distance between source and listener)	88
Garbage Disposal in the Home	85
Pneumatic Drill (50 feet in distance between source and listener)	80
Inside Sports Car: 50 mph	79
Vacuum Cleaner (10 feet in distance between source and listener)	69
Data Processing Center	65
Department Store	61
Speech (1 foot in distance between source and listener)	60
Auto Traffic near Freeway	58

Source of Noise	*A-Weighted Sound Pressure Level in Decibels*
Typical Minimum Daytime Levels – Residential Areas	55
Private Business Office	52
Large Transformer (200 feet in distance between source and listener)	49
Light Traffic (100 feet in distance between source and listener)	48
Average Residence	42
Typical Minimum Nighttime Levels – Residential Areas	41
Soft Whisper	30
Rustling Leaves	21
Recording Studio	20
Mosquito	10

Notes:

1. 10 decibels is the Threshold of Hearing

2.120 decibels is the Threshold of Pain

Source: Caltrans. Technical Noise Supplement. 2013. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf. Accessed: January 16, 2024.

These successive additions of sound to the community noise environment change the community noise level from instant to instant, requiring the noise exposure to be measured over periods of time to legitimately characterize an existing community noise environment. The following noise descriptors are used to characterize environmental noise levels over time, which are applicable to the Project.

- L_{eq}: The equivalent sound level over a specified period of time, typically, one hour (L_{eq}). The L_{eq} may also be referred to as the average sound level.
- L_{max}: The maximum, instantaneous noise level experienced during a given period of time.
- L_{min}: The minimum, instantaneous noise level experienced during a given period of time.
- L_x: The noise level exceeded a percentage of a specified time period. For instance, L50 and L90 represent the noise levels that are exceeded 50 percent and 90 percent of the time, respectively.
- L_{dn}: The average A-weighted noise level during a 24-hour day, obtained after an addition of 10 dB to measured noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account for nighttime noise sensitivity. The L_{dn} is also termed the day-night average noise level (DNL).
- CNEL: The Community Noise Equivalent Level (CNEL) is the average A-weighted noise level during a 24-hour day that includes an addition of 5 dB to measured noise levels between the hours of 7:00 a.m. to 10:00 p.m. and an addition of 10 dB to noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

Physiological Effects of Noise

Noise is generally loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity that is a nuisance or disruptive. The effects of noise on people can be placed into four general categories:

1. Subjective effects (e.g., dissatisfaction, annoyance)
2. Interference effects (e.g., communication, sleep, and learning interference)
3. Physiological effects (e.g., startle response)
4. Physical effects (e.g., hearing loss)

Although exposure to high noise levels has been demonstrated to cause physical and physiological effects, the principal human responses to typical environmental noise exposure are related to subjective effects and interference with activities. Interference effects interrupt daily activities and include interference with human communication activities, such as normal conversations, watching television, telephone conversations, and interference with sleep. Sleep interference effects can include both awakening and arousal to a lesser state of sleep.[1]

With regard to the subjective effects, the responses of individuals to similar noise events are diverse and influenced by many factors, including the type of noise, the perceived importance of the noise, the appropriateness of the noise to the setting, the duration of the noise, the time of day and the type of activity during which the noise occurs, and individual noise sensitivity. Overall, there is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction on people. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted (i.e., comparison to the ambient noise environment). In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships generally occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA in ambient noise levels cannot be perceived;
- Outside of the laboratory, a 3 dBA change in ambient noise levels is considered to be a barely perceivable difference;
- A change in ambient noise levels of 5 dBA is considered to be a readily perceivable difference; and
- A change in ambient noise levels of 10 dBA is subjectively heard as a doubling of the perceived loudness.

These relationships occur in part because of the logarithmic nature of sound and the decibel scale. The human ear perceives sound in a non-linear fashion; therefore, the dBA scale was developed. Because the dBA scale is based on logarithms, two noise sources do not combine in a simple additive

[1] Caltrans. Technical Noise Supplement. 2013. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf. Accessed: January 16, 2024.

fashion, but rather logarithmically. Under the dBA scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two sources are each producing sound of the same loudness, the resulting sound level at a given distance would be approximately 3 dBA higher than one of the sources under the same conditions. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA. Under the dB scale, three sources of equal loudness together produce a sound level of approximately 5 dBA louder than one source, and ten sources of equal loudness together produce a sound level of approximately 10 dBA louder than the single source.[2]

Noise Attenuation

When noise propagates over a distance, the noise level reduces with distance at a rate that depends on the type of noise source and the propagation path. Noise from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, referred to as "spherical spreading." Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (i.e., reduce) at a rate between six dBA for acoustically "hard" sites and 7.5 dBA for "soft" sites for each doubling of distance from the reference measurement, as their energy is continuously spread out over a spherical surface (e.g., for hard surfaces, 80 dBA at 50 feet attenuates to 74 at 100 feet, 68 dBA at 200 feet, etc.). Hard sites are those with a reflective surface between the source and the receiver, such as asphalt or concrete surfaces or smooth bodies of water. No excess ground attenuation is assumed for hard sites and the reduction in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees, which in addition to geometric spreading, increase the ground attenuation value by 1.5 dBA (per doubling distance).[3]

Roadways and highways consist of several localized noise sources on a defined path, and hence are treated as "line" sources, which approximate the effect of several point sources. Noise from a line source propagates over a cylindrical surface, often referred to as "cylindrical spreading." Line sources (e.g., traffic noise from vehicles) attenuate at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement.[4] Therefore, noise due to a line source attenuates less with distance than that of a point source with increased distance. Additionally, receptors located downwind from a noise source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Atmospheric temperature inversion (i.e., increasing temperature with elevation) can increase sound levels at long distances (e.g., more than 500 feet). Other factors such as air temperature, humidity, and turbulence can also have significant effects on noise level.[5]

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[2] Caltrans. Technical Noise Supplement. 2013. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf. Accessed: January 16, 2024.

3 Caltrans. Technical Noise Supplement. 2013. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf. Accessed: January 16, 2024.

[4] Caltrans. Technical Noise Supplement. 2013. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf. Accessed: January 16, 2024.

5 Caltrans. Technical Noise Supplement. 2013. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf. Accessed: January 16, 2024.

Noise-Sensitive Receptors

Many land uses are considered sensitive to noise. Noise-sensitive receptors are land uses associated with indoor and/or outdoor activities that may be subject to stress and/or significant interference from noise, such as residential dwellings, transient lodging, dormitories, hospitals, educational facilities, and libraries. Industrial and commercial land uses are generally not considered sensitive to noise. Special-status species and their habitat may also be considered noise-sensitive. Existing noise-sensitive receptors within the Planning Area include single- and multi-family residential housing, schools, parks, and libraries.

Existing Noise Conditions and Sources

The predominant source of noise in the Planning Area, as in most communities, is motor vehicles on roadways. Motor vehicle noise is of concern because it is characterized by a high number of individual events, which often create a sustained noise level, and because of its proximity to noise-sensitive uses. Roadways with the highest traffic volumes and speeds produce the highest noise levels.

The second significant source of noise is aircraft flights and operations at the Monterey Regional Airport, which is located immediately adjacent to the eastern city limits. The Monterey Peninsula Airport is approximately 600 acres and is owned and operated by the Monterey Peninsula Airport District (MPAD). The airport has two runways and flight paths over existing developments such as the Casanova Oak Knoll neighborhood, Ryan Ranch office park, the U.S. Navy Golf Course, and the Monterey County Fairgrounds.

The Monterey County Airport Land Use Commission adopted the Airport Land Use Compatibility Plan (ALUCP). Airplanes generate significant noise and the ALUCP identifies the airport's noise contours. The 65 dB contour is predominantly limited to the airport's jurisdiction. In addition, the ALUCP identifies safety and noise hazards associated with the airport and recommends areas where certain uses should not be located. The ALUCP Table 4B establishes the following prohibitions affecting residential construction:

- Zone 1 – Prohibits all structures except ones with location set by aeronautical function.
- Zone 2 – Prohibits all residential except for very low density residential and infill in developed areas.
- Zone 3 – Prohibits all residential except for low density residential and infill in developed areas.
- Zone 4 – Prohibits buildings with greater than 3 aboveground habitable floors.
- Zone 5 – Prohibits residential except for very low residential and infill in developed areas.
- Within Zones 6 and 7 residential is an allowed use and there is no maximum allowed density.

The Planning Area does not have major stationary sources of noise, such as large factories. While there are no industrial plants or factories that significantly affect noise levels in the Planning Area,

construction, heating and cooling equipment, truck loading, and recreational activities contribute to the Planning Area's overall noise environment.[7]

Ground Vibration

Characterization and Measurement

While sound is the transmission of energy through the air, groundborne vibration is the transmission of energy through the ground or other solid medium and is perceived by humans as motion (of the ground, floor, or building). Vibrations can also generate noise by transmitting energy through the air. Groundborne vibration can be quantified in two main ways. One commonly used descriptor is PPV, or Peak Particle Velocity. As seismic waves travel outward from a vibration source, they cause rock and soil particles to oscillate. The actual distance that these particles move is usually only a few ten-thousandths to a few thousandths of an inch. The rate or velocity (in inches per second) at which these particles move is the commonly accepted descriptor of the vibration amplitude, referred to as the peak particle velocity (PPV). This type of vibration will be discussed in more detail below under Construction Vibration.

Groundborne vibration can also be quantified by the root-mean-square (RMS) velocity amplitudes, which can be useful for assessing human annoyance. The RMS amplitude is expressed in terms of the velocity level in decibel units (VdB). The background vibration velocity level in residential areas is usually around 50 VdB or lower. The vibration velocity level threshold of perception for humans is approximately 65 VdB. Most perceptible indoor vibration is caused by sources within buildings, such as the operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are heavy construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible.

Table 3.11-2 summarizes the typical groundborne vibration velocity levels and average human response to vibration that may be anticipated when a person is at rest in quiet surroundings. If the person is engaged in any type of physical activity, vibration tolerance increases considerably. The duration of the event has an effect on human response, as does its daily frequency of occurrence. Generally, as the duration and frequency of occurrence increases, the potential for adverse human response increases. Groundborne noise is a secondary component of groundborne vibration. When a building structure vibrates, noise is radiated into the interior of the building. Typically, this is a low-frequency sound that can be perceived as a low rumble. The magnitude of the sound depends on the frequency characteristic of the vibration and the manner in which the room surfaces in the building radiate sound. Groundborne noise is quantified by the A-weighted sound level inside the building. The sound level accompanying vibration is generally 25 to 40 dBA lower than the vibration velocity level in VdB. Groundborne vibration levels of 65 VdB can result in groundborne noise levels of up to 40 dBA, which can disturb sleep. Groundborne vibration levels of 85 VdB can

[7] Monterey County Airport Land Use Commission, Airport Land Use Compatibility Plan, Adopted February 25, 2019, pp. 4-23 and 4-24 https://www.co.monterey.ca.us/home/showpublisheddocument/75251/636875603145330000

result in groundborne noise levels of up to 60 dBA, which can be annoying to daytime noise-sensitive land uses such as schools.[8]

Construction Vibration

As described above, vibration resulting from the operation of heavy construction equipment is often reported in PPV, which is the rate or velocity, in inches per second, at which rock and soil particles oscillate as seismic waves travel outward from a vibration source. The operation of heavy construction equipment, particularly pile driving equipment and other impact devices (e.g., pavement breakers), creates seismic waves that radiate along the surface of and downward into the ground. These surface waves can be felt as ground vibration. Vibration from operation of this equipment can result in effects ranging from annoyance of people to damage of structures. Variations in geology and distance result in different vibration levels containing different frequencies and displacements. In all cases, vibration amplitudes decrease with increasing distance.

Perceptible groundborne vibration is generally limited to areas within a few hundred feet of construction activities. Vibration amplitude attenuates over distance and is a complex function of how energy is imparted into the ground and the soil or rock conditions through which the vibration is traveling. The following equation is used to estimate the vibration level at a given distance for typical soil conditions (Federal Transit Administration, 2006). PPV_{ref} is the reference PPV at 25 feet.

$$PPV = PPV_{ref} \times (25/Distance)^{1.5}$$

Table 3.11-3 summarizes typical vibration levels generated by construction equipment (Federal Transit Administration, 2006) at the reference distance of 25 feet and other distances as determined using the attenuation equation above.

Table 3.11-2: Typical Levels of Groundborne Vibration

Human or Structural Response	*Vibration Velocity Level (VdB)*	*Typical Sources (50 feet from source)*
Threshold for minor cosmetic damage to fragile buildings	—100—	Blasting from construction project
		Bulldozer or heavy-tracked construction equipment
Difficulty in reading computer screen	—90—	
		Upper range of commuter rail
Threshold for residential annoyance for occasional events (e.g., commuter rail)	—80—	Upper range of rapid transit

[8] Federal Transit Administration. Transit Noise and Vibration Impact Assessment Manual. 2018. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed: January 16, 2024.

Table 3.11-2: Typical Levels of Groundborne Vibration

Human or Structural Response	*Vibration Velocity Level (VdB)*	*Typical Sources (50 feet from source)*
Threshold for residential annoyance for frequent events (e.g., rapid transit)		Typical commuter rail Bus or truck over bump
	—70—	Typical rapid transit
Approximate threshold for human perception of vibration; limit for vibration-sensitive equipment		Typical bus or truck on public road
	—60—	
		Typical background vibration
	—50—	

Source: Federal Transit Administration. Transit Noise and Vibration Impact Assessment Manual. 2018. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed: January 16, 2024.

Tables 3.11-4 and 3.11-5 summarize guidelines developed by the California Department of Transportation (Caltrans) for damage and annoyance potential from transient and continuous vibration that is usually associated with construction activity. Equipment or activities typical of continuous vibration include: excavation equipment, static compaction equipment, tracked vehicles, traffic on a highway, vibratory pile drivers, pile-extraction equipment, and vibratory compaction equipment. Equipment or activities typical of single-impact (transient) or low-rate repeated impact vibration include: impact pile drivers, blasting, drop balls, "pogo stick" compactors, and crack-and-seat equipment.

Table 3.11-3: Vibration Source Levels for Construction Equipment

Equipment	*PPV at 25 Feet*	*PPV at 50 Feet*	*PPV at 75 Feet*	*PPV at 100 Feet*	*PPV at 175 Feet*
Pile driver (impact)[a]	0.65	0.230	0.125	0.081	0.035
Pile driver (sonic/vibratory)[a]	0.65	0.230	0.125	0.081	0.035
Hoe ram or large bulldozer	0.089	0.0315	0.0171	0.0111	0.0048
Large bulldozer	0.089	0.0315	0.0171	0.0111	0.0048
Loaded trucks	0.076	0.0269	0.0146	0.0095	0.0041
Jackhammer	0.035	0.0124	0.0067	0.0044	0.0019
Small bulldozer	0.003	0.0011	0.0006	0.0004	0.0002

Note:

a. The Caltrans Transportation and Construction Vibration Guidance Manual (Caltrans 2013b) is used as the source for vibration from a vibratory pile driver.

Source: Federal Transit Administration. Transit Noise and Vibration Impact Assessment Manual. 2018. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed: January 16, 2024.

Table 3.11-4: Vibration Damage Potential Threshold Criteria Guidelines

	Maximum PPV (inches/second)	
Structure and Condition	*Transient Sources*	*Continuous/Frequent Intermittent Sources*
Extremely fragile historic buildings, ruins, ancient monuments	0.1	0.1
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.3
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Notes:

Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

PPV = peak particle velocity.

Source: CalTrans. Transportation and Construction Manual. 2013. Available: https://www.contracosta.ca.gov/DocumentCenter/View/34120/Caltrans-2013-construction-vibration-PDF?bidId=Accessed: January 16, 2024.

Table 3.11-5: Vibration Annoyance Potential Criteria Guidelines

	Maximum PPV (inches/second)	
Human Response	*Transient Sources*	*Continuous/Frequent Intermittent Sources*
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Notes:

Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

PPV = peak particle velocity.

Source: Caltrans. Transportation and Construction Manual. 2013. Available: https://www.contracosta.ca.gov/DocumentCenter/View/34120/Caltrans-2013-construction-vibration-PDF?bidId=Accessed: January 16, 2024.

REGULATORY SETTING

Federal Regulations

Environmental Protection Agency

Under the authority of the Noise Control Act of 1972, the United States Environmental Protection Agency (U.S. EPA) established noise emission criteria and testing methods published in Parts 201 through 205 of Title 40 of the Code of Federal Regulations (CFR) that apply to some transportation equipment (e.g., interstate rail carriers, medium trucks, and heavy trucks) and construction equipment. In 1974, USEPA issued guidance levels for the protection of public health and welfare in residential land use areas of an outdoor L_{dn} of 55 dBA and an indoor L_{dn} of 45 dBA (U.S. EPA, 1974). These guidance levels are not considered as standards or regulations and were developed without consideration of technical or economic feasibility.

Occupational Safety and Health Administration

Under the Occupational Safety and Health Act of 1970 (29 United States Code [U.S.C.] Section 1919 et seq.), the Occupational Safety and Health Administration (OSHA) has adopted regulations designed to protect workers against the effects of occupational noise exposure. These regulations list permissible noise level exposure as a function of the amount of time during which the worker is exposed. The regulations further specify a hearing conservation program that involves monitoring the noise to which workers are exposed, ensuring that workers are made aware of overexposure to noise, and periodically testing the workers' hearing to detect any degradation.

Department of Housing and Urban Development

The U.S. Department of Housing and Urban Development's environmental criteria and standards are presented in 24 Code of Federal Regulations (CFR) Part 51. New construction proposed in high noise areas (exceeding 65 dBA DNL) must incorporate noise attenuation features to maintain acceptable interior noise levels. A goal of 45 dBA DNL is set forth for interior noise levels and attenuation requirements are geared toward achieving that goal. It is assumed that with standard construction, any building will provide sufficient attenuation to achieve an interior level of 45 dBA DNL or less if the exterior level is 65 dBA DNL or less. Approvals in a "normally unacceptable noise zone" (exceeding 65 dB, but not exceeding 75 dB) require a minimum of 5dB of additional noise attenuation for buildings having noise sensitive uses if the DNL is greater than 65 dB, but does not exceed 70 dB, or a minimum of 10 dB of additional noise attenuation, if the day-night average is greater than 70 dB, but does not exceed 75 dB.

Federal Highway Administration

An assessment of noise and consideration of noise abatement per Title 23 of the CFR, Part 772, "Procedures for Abatement of Highway Traffic Noise and Construction Noise," is required for proposed federal or federal-aid highway construction projects on a new location, or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes. The FHWA considers noise abatement for sensitive receivers, such as picnic areas, recreation areas, playgrounds, active sport areas, parks,

residences, motels, hotels, schools, places of worship, libraries, and hospitals when "worst-hour" noise levels approach or exceed 67 dBA Leq. The California Department of Transportation (Caltrans) has further defined "approach" as meaning to be within 1 dB of the Noise Abatement Criteria (NAC).

Federal Railroad Noise Emissions Compliance Regulation

FTA's Office of Safety is responsible for enforcing the Railroad Noise Emissions Compliance Regulation that sets maximum sound levels from railroad equipment and for regulating locomotive horns.

The FTA has issued a manual for assessing transit-related vibration and noise impacts, which was most recently updated in 2018. The *Transit Noise and Vibration Impact Assessment* contains criteria and procedures for use in analyzing the potential noise and vibration impacts of various types of high-speed fixed guideway transportation systems, including freight, passenger, and high-speed rail. The manual also contains standard vibration control and mitigation measures, to be used when impacts would be significant, based on the level and frequency of vibrations, surrounding land uses, and presence of sensitive receptors.

State Regulations

State of California Noise Standards

The State of California does not have statewide standards for environmental noise, but the Governor's Office of Planning and Research (OPR) has established general plan guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The purpose of these guidelines is to maintain acceptable noise levels in a community setting for different land use types. Noise compatibility by different land uses types is categorized into four general levels: "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable." For instance, a noise environment ranging from 50 dBA CNEL to 65 dBA CNEL is considered to be "normally acceptable" for multi-family residential uses, while a noise environment of 75 dBA CNEL or above for multi-family residential uses is considered to be "clearly unacceptable."

In addition, California Government Code Section 65302 requires each county and city in the State to prepare and adopt a comprehensive long-range general plan for its physical development, with Section 65302(f) specifically requiring a noise element to be included in the general plan. The noise element must: (1) identify and appraise noise problems in the community and analyze and quantify current and projected noise levels; (2) show noise contours for noise sources stated in CNEL; (3) use noise contours as a guide for establishing a pattern of land uses; and (4) implement measures and possible solutions that address existing and foreseeable noise problems.

The State of California has also established noise insulation standards for new multi-family residential units, hotels, and motels that would be subject to relatively high levels of transportation-related noise. These requirements are collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an interior standard of 45 dBA CNEL in any habitable room. They require an acoustical analysis

demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than 60 dBA CNEL. Title 24 standards are enforced by local jurisdictions through the building permit application process.

Local Regulations

Monterey City Code

The Community Noise Ordinance of the City of Monterey Municipal Code (Chapter 38) establishes that all uses and activities must comply with the provisions of the Monterey Noise Regulations (Sections 22-17 and 22-18). The noise regulations include:

- Decibel levels shall be compatible with neighboring uses, and no use shall create ambient noise levels which exceed prescribed standards in the code.
- The Community Development Director may require an acoustic study for any Proposed Plans which could have, or create, a noise exposure greater than that deemed acceptable. (Ord. 3653 § 19, 2022; Ord. 3472 § 1, 2012).
- Noise shall be measured at an appropriate distance from the source with a sound level meter, which meets the standards of the American National Standards Institute (ANSI Section S1.4 1979, Type 1 or Type 2). Noise levels shall be measured in decibels. The unit of measurement shall be designated as Db. A calibration check shall be made of the instrument at the time any noise measurement is made.
- The Community Development Director may require the incorporation into a project of any noise attenuation measures deemed necessary to ensure that noise standards are not exceeded. (Ord. 3653 § 19, 2022; Ord. 3472 § 1, 2012).
- Decisions of the Community Development Director may be appealed by the applicant to the Planning Commission in accord with Article 27. (Ord. 3653 § 19, 2022; Ord. 3472 § 1, 2012).
- No use, activity, or process shall produce vibrations that are perceptible without instruments by a reasonable person at the property lines of a site.
- The noise standards above shall be modified as follows to account for the effects of time and duration on the impact of noise levels:
    - In R districts, the noise standard shall be 5 Db lower between 10:00 p.m. and 7:00 a.m.
    - Noise that is produced for no more than a cumulative period of five minutes in any hour may exceed the standards above by 5 Db.
    - Noise that is produced for no more than a cumulative period of one minute in any hour may exceed the standards above by 10 Db.

Monterey City Code Section 38-112.2 also outlines limitations on construction hours. The hours for all construction, alteration, remodeling, demolition, and repair activities which are authorized by a valid City Building Permit, as well as the delivery and removal of materials and equipment associated with these activities, are limited to the hours of 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 Monterey General Plan 2005 (General Plan) Noise Element

The City of Monterey General Plan Noise Element utilizes the Community Noise Equivalent Level (CNEL) noise descriptor and specifies an exterior noise exposure limit of 60 dB CNEL for residential land use and other sensitive land uses and 65 dB CNEL for commercial land use. Actions to mitigate noise levels are required if exterior noise levels exceed these standards. The interior noise exposure level for residences, schools, and other noise sensitive development is limited to 45 dBA, consistent with State noise standards. Actions that ensure interior noise levels do not exceed 45 dBA must be taken if exterior noise exposure exceeds the stated standards. General Plan Table 10, Noise Exposure Standards, provides the City's noise standards. The City of Monterey General Plan Noise Standards are shown in Table 3.11-6.

Table 3.11-6: General Plan Exterior Noise Exposure Standards for New Development

Land Use Designation	*Normally Acceptable Community Noise Exposure (Ldn or CNEL, dB)*	*Conditionally Acceptable Community Noise Exposure (Ldn or CNEL, dB)*	*Normally Unacceptable Community Noise Exposure (Ldn or CNEL, dB)*	*Clearly Unacceptable Community Noise Exposure (Ldn or CNEL, dB)*
Residential – Low Density Single Family, Duplex, Mobile Homes	50 – 60	55 – 70	70 – 75	75 - 85
Residential – Townhomes, Multi-Family Apartments, Mixed Use, Condominiums	50 – 65	60 – 70	70 – 75	75 – 85
Transient Lodging – Motels/Hotels	50 – 65	60 – 70	70 – 80	80 – 85
Schools, Libraries, Churches, Hospitals, Extended Care Facilities	50 – 70	60 – 70	70 – 80	80 - 85
Auditorium, Concert Halls, Amphitheaters	N/A	N/A	50 – 70	65 – 85
Sports Arena, Outdoor Spectator Sports	N/A	N/A	50 – 75	70 – 85
Playgrounds, Neighborhood Parks	50 – 70	67 – 75	70 – 80	N/A
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 – 75	70 – 80	80 - 85	N/A
Commercial buildings including Office Buildings	50 – 70	67 – 80	75 - 85	N/A

Table 3.11-6: General Plan Exterior Noise Exposure Standards for New Development

Land Use Designation	*Normally Acceptable Community Noise Exposure (Ldn or CNEL, dB)*	*Conditionally Acceptable Community Noise Exposure (Ldn or CNEL, dB)*	*Normally Unacceptable Community Noise Exposure (Ldn or CNEL, dB)*	*Clearly Unacceptable Community Noise Exposure (Ldn or CNEL, dB)*
Industrial, Manufacturing Utilities, Agriculture	50 – 75	70 – 80	75 - 85	N/A

Notes:

1. Ldn, or Day Night Average, is an average 24-hour noise measurement that factors day and night noise levels.

2. CNEL, or Community Noise Equivalent Level, measurements are a weighted average of sound levels gathered throughout a 24-hour period.

3. Applies to the primary open space areas of townhomes and multifamily apartments or condominiums (private rear yards for townhomes; common courtyards, roof gardens, or gathering spaces for multi-family developments). These standards shall not apply to balconies or small attached patios in multi-story multi-family structures.

Source: City of Monterey General Plan 2005.

The General Plan Noise Element includes the following goals and policies associated with noise and vibration:

Goal a. Minimize traffic noise in predominantly residential areas and ensure noise in commercial areas is at an acceptable level. Residential areas impacted by high noise levels are along Highway One, David Avenue, and Pacific Street. Del Monte School, Bayview School, and San Carlos School are also impacted by motor vehicle noise. Commercial areas were impacted by traffic noise along Lighthouse Avenue, Del Monte Avenue, and Franklin Street.

> **Policy a.1.** Limit truck traffic to local delivery. Pacific Grove truck traffic should be assigned to Holman Highway (Highway 68).
>
> **Policy a.2.** Route trucks and through traffic onto truck routes, even where such routing is not the shortest distance between points.
>
> **Program a.2.1** Implement traffic calming measures in neighborhoods.
>
> **Policy a.3.** Re-evaluate City traffic flow systems periodically to determine whether traffic flows can be adjusted through synchronized signalization or other means to minimize traffic stops.
>
> **Policy a.4.** Cooperate with the California Highway Patrol in the active enforcement of state motor vehicle noise standards. Active enforcement of state motor vehicle noise standards (especially altered or illegal mufflers) can keep these contributors to the noise problem under control. The City enforces state motor vehicle noise standards on City streets and the Highway Patrol enforces these standards on state highways.

Policy a.5. Protect areas adjacent to roadways and freeways with landscaped noise buffers or other means; sound walls should not be allowed.

Policy a.6. Develop and encourage the use of non-automobile travel modes such as bicycle, pedestrian and transit alternatives.

Program a.6.1. Give implementation of the citywide bikeway system a high priority in the City's capital funding.

Program a.6.2. Design separated bikeway and pedestrian systems into all new roadways and major improvements of existing roadways where feasible and in conformance with the City General Plan, area plans, Parks Master Plan, and Bicycle Master Plan.

Policy b.1. Support improvements and operational changes at the airport that promote safety and noise reduction.

Policy b.2. Work with the Airport District, Airport Land Use Commission, and surrounding 91 cities in planning for appropriate land uses around the airport and developing solutions to existing noise problems.

Policy b.3. Continue to encourage the airport to limit aircraft noise between the hours of 11 p.m. and 7 a.m.

Policy b.4. Support limiting the number of fixed-base general aviation aircraft at the airport to the existing number.

Policy b.5. Implement the following land use standards for properties that are exposed to noise levels in excess of 60 CNEL (Table 8).

Goal c. Encourage quiet neighborhoods.

Goal d. Allow new construction only where existing or projected noise levels are acceptable or can be mitigated.

Policy d.1. The City can require noise mitigations to reduce interior noise levels to an acceptable level. Table 8 establishes the land use compatibility standards for new development.

Policy d.2. Limit hours of noise generating construction activities. Include this requirement as a condition of project approval.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if implementation of the Proposed Plan would:

Criterion 1: **Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;**

Criterion 2: **Generate excessive groundborne vibration or groundborne noise levels;**

Criterion 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.**

METHODOLOGY AND ASSUMPTIONS

This analysis is based on noise modeling performed by Salter, informed by traffic modeling prepared by Kimley-Horn for the Proposed Plan's study network, including data on traffic volumes, as well as on land use and roadway network changes assumed as part of the Proposed Plan. As part of the study of existing conditions in the City of Monterey Planning Area, Salter performed long-term noise measurements at six roadways throughout the city from May 19 through May 24, 2023. Salter then developed traffic noise estimates based on traffic data to study expected increases in noise level under the Proposed Plan for 1,371 unique roadway segments in the city. The results of the analysis are included in Appendix F, Noise Modeling.

Significance Criteria

For the purposes of this EIR, a significant adverse impact would occur if implementation of the Proposed Plan would result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Planning Area in excess of standards established in the City of Monterey General Plan Noise Element and Monterey City Code.

Thus, the following thresholds are applied to determine the significance of Plan-related noise increases:

- Any projected noise level under the Proposed Plan that is greater than the "Normally Acceptable" noise level according to the City of Monterey General Plan Noise Element as shown in Table 9 for existing or planned land uses would be considered potentially significant.

Where noise levels would remain at or below Normally Acceptable levels, there would be no significant impact. The General Plan Noise Element provides Normally Acceptable noise level standards for a variety of land uses. The General Plan Safety Element also provides Conditionally

Acceptable noise level standards, for which the specified land use may be permitted only after a detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.

Construction Noise

Construction noise from development facilitated by the Proposed Plan is estimated on the basis of noise levels for various pieces of construction equipment reported by the FTA's Noise and Vibration Impact Assessment (2018).[9] It is conservatively assumed that construction equipment typically operates as close as 25 feet from the nearest noise-sensitive receptors. Construction noise level estimates do not account for the presence of intervening structures or topography, which could reduce noise levels at receptor locations. New development facilitated by the Proposed Plan would have a significant impact if temporary construction noise during permitted daytime hours could expose noise-sensitive receptors to significantly adverse noise levels, or if construction would not meet one of the standards in Section 38-112.2 of the City of Monterey Municipal Code.

On-site Operational Noise

On-site activities at new development facilitated by the Proposed Plan would have a significant impact if it would expose neighboring noise-sensitive land uses to noise levels exceeding the City's standards in the Municipal Code Sections 22-17 and 22-18, as described above in Regulatory Setting.

Traffic Noise

Traffic-related noise impacts are evaluated using the FHWA Highway Traffic Noise Prediction Model (FHWA RD-77-108).[10] This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The resultant noise levels are weighted and summed over 24-hour periods to determine the CNEL values. The traffic volumes for each roadway segment will be used along with the FHWA Traffic Noise Model to calculate Ldn at a distance of 50 feet from the roadway centerlines for local roadways. Noise standards found in the General Plan Noise Element and Municipal Code are used to evaluate potential noise impacts in the Planning Area, as discussed above.

Stationary Noise

As noted above, this analysis evaluates impacts associated with the Proposed Plan at the program level, given that specific details on future mechanical equipment or HVAC equipment and layout cannot be known at this time. Accordingly, the specific noise sources that might occur in

[9] Federal Transit Administration (FTA). September 2018. Transit Noise and Vibration Impact Assessment Manual. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed: January 17, 2024

[10] U.S. Department of Transportation, Federal Highway Administration. 1978. FHWA Highway Traffic Noise Prediction Model. Available: https://rosap.ntl.bts.gov/view/dot/30259/dot_30259_DS1.pdf. Accessed: January 17, 2024

conjunction with development of land uses allowable under the Proposed Plan also cannot be known at this time. Therefore, stationary and other noise source impacts will be discussed on a qualitative basis, considering the potential for new noise sources to exceed established standards.

Groundborne Vibration

The City has not adopted a significance thresholds to assess vibration impacts during construction. The general human response to different levels of groundborne vibration velocity levels is described in Table 3.11-5. To determine vibration impacts during construction under the Proposed Plan, vibration levels were calculated at vibration-sensitive receptors using VdB and compared to the FTA guidelines set forth in the FTA Transit Noise and Vibration Assessment (2018).[11] The following vibration thresholds are established by the FTA for the disturbance of people:

- 65 VdB for buildings where low ambient vibration is essential for interior operations, such as hospitals and recording studios
- 72 VdB for residences and buildings where people normally sleep, including hotels
- 75 VdB for institutional land uses with primary daytime use, such as churches and schools

These thresholds apply to "frequent events," which the FTA defines as vibration events occurring more than 70 times per day. The thresholds for frequent events are considered appropriate because of the scale and duration of the construction activity facilitated by the General Plan. In addition, this analysis applies the following FTA thresholds in Table 3.10-4 for potential structural damage to buildings from construction vibration.

RELEVANT PROPOSED GOALS AND POLICIES

The Proposed Plan contains the following goals and policies relevant to noise and vibration. The full text of proposed Housing Element programs is included in Appendix B for reference:

Housing Element

Housing Goal #1. Increase housing supply and facilitate production of at least 3,654 new homes by 2031.

Program 1-H Fort Ord/Ryan Rach Specific Plan.

Program 1-I Highway 68 Area Plan Update.

Circulation Element

Goal k. An air transportation system that is integrated with a multi-modal surface transportation system that efficiently moves people and goods while maximizing positive economic impacts.

> **Policy k.5.** Support improvements and operational changes at the airport that promote safety and noise reduction.

[11] FTA. 2018. Transit Noise and Vibration Impact Assessment Manual.

IMPACTS

Impact 3.11-1 Implementation of the Proposed Plan would not 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. (*Less than Significant*)

Construction

Noise from individual construction projects carried out under the Proposed Plan would likely result in temporary increases in ambient noise levels at 25 feet and at adjacent property lines. As the precise details and timeframes for individual development projects that would be carried out under the Proposed Plan cannot be known at this time, it is not possible to determine exact noise levels, locations, or time periods for construction of such projects, or construction noise at adjacent properties. Construction of residential and mixed-use development and redevelopment primarily within key opportunity areas of the city could potentially expose existing sensitive noise receptors to high levels of sustained construction noise in the vicinity of sensitive receptors, including from construction-related traffic, demolition, and reconstruction activities. Table 3.11-7 illustrates typical noise levels associated with construction equipment at a distance of 25 feet. At a distance of 25 feet from the construction site, noise levels similar to those shown in Table 3.11-7 would be expected to occur with individual development projects. Noise would typically drop off at a rate of about 6 dBA per doubling of distance. Therefore, construction noise levels would be about 6 dBA lower than shown in the table at 50 feet from the noise source and 12 dBA lower at a distance of 100 feet from the noise source.

As shown in Table 3.11-7, noise levels from construction activity could approach 107 dBA Leq 25 feet from construction equipment, specifically from the operation of pile drivers. Pile foundations are generally used under two situations: 1) when there is a layer of weak soil at the ground surface that cannot support the weight of a building; or 2) when a building has very heavy, concentrated loads, such as in a high-rise structure of 75 feet or taller, a bridge, or a water tank. The Proposed Plan does not envision new infrastructure such as bridges and water tanks, nor the construction of high-rise buildings in the Planning Area, thus pile drivers would not be needed. However, other construction equipment, such as a backhoe which could approach 86 dBA Leq at 25 feet, would exceed the exterior noise limits established in the City's General Plan. The City's exterior noise standards are 60 dBA for single-family residential areas and 65 dBA for multi-family residential areas. Construction noise would exceed ambient noise levels and may temporarily disturb people at neighboring properties. However, allowable hours for construction activity based on time of day are outlined in Monterey City Code Section 38-112.2.

Table 3.11-7: Typical Noise Levels for Construction Equipment

	Estimated Noise Levels at Nearest Sensitive Receptors (dBA Leq)		
Equipment	*25 feet*	*50 feet*	*100 feet*
Air Compressor	86	80	74
Backhoe	86	80	74

Concrete Mixer	91	85	79
Dozer	91	85	79
Grader	91	85	79
Jack Hammer	94	88	82
Loader	86	80	74
Paver	91	85	79
Pile-drive (Impact)	107	101	95
Pile-driver (Sonic)	101	95	89
Roller	91	85	79
Saw	82	76	70
Scarified	89	83	77
Scraper	91	85	79
Truck	90	84	78

Source: FTA, 2018. Transit Noise and Vibration Impact Assessment Manual.
https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

The severity of construction-related noise impacts depends on the proximity of construction activities to sensitive receptors, the presence of intervening barriers, the number and types of equipment used, and the duration of the activity. While these factors cannot be known precisely for future projects under the Proposed Plan, individual projects pursuant to the Proposed Plan would be required to comply with City standards. Per Monterey City Code Section 38-112.2, the hours for all construction, alteration, remodeling, demolition and repair activities which are authorized by a valid City Building Permit, as well as the delivery and removal of materials and equipment associated with these activities, are limited to the hours of 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. Construction that complies with the time-of-day restrictions for construction activities would result in less than significant noise impacts with regard to the generation of noise in excess of thresholds.

Implementation of policies contained in the General Plan would further reduce construction noise and associated impacts. Goal d allows only new construction where existing or projected noise levels are acceptable or can be mitigated. Under Policy d.1, the City would require noise mitigation to reduce interior noise levels to an acceptable level. Table 8 of the General Plan Noise Element establishes the land use compatibility standards for new development. Further, under Policy d.2 the City would limit the hours of noise generating construction activities as a condition of project approval.

Therefore, compliance with existing time-of-day restrictions for construction activities as well as the applicable Monterey City Code and General Plan policies would ensure that impacts related to construction noise would be less than significant.

On-Site Operational Noise

Residential and mixed-use development pursuant to the Proposed Plan is not likely to generate operational noise levels that would exceed the City's standards. The noise generated by on-site activities for new development would be subject to the City's exterior noise exposure standards for new development, contained in the General Plan Noise Element. The noise standard for single-family residential areas is 60 dBA and 65 dBA for multi-family residential areas. Stationary noise sources at new residential and mixed-use development would include ventilation and heating (HVAC) systems. Residential developments that comply with these noise standards would result in less than significant noise impacts with regard to the generation of noise in excess of thresholds. Therefore, compliance with the requirements of the General Plan and Monterey City Code would reduce potential on-site noise impacts to a less than significant level.

Traffic Noise

Future development associated with the Proposed Plan would result in an increase in traffic in and adjacent to the Planning Area and the placement of new sensitive receptors within the Planning Area. In certain locations, such as the Fort Ord/Ryan Ranch opportunity area, and the 50-acre MPUSD site south of the airport, the construction of new access roads and internal circulation may also be required. Future noise conditions were projected using a reference distance of 50 feet from each roadway segment centerline for local roadways. Then, based on the average daily traffic volumes provided by the traffic consultant, traffic noise levels were quantified for the 2031 Plus Project condition. Existing (2023) traffic noise levels were obtained from traffic modeling data performed by Kimley-Horn. The difference in noise between these two scenarios represents the Proposed Plan's incremental contribution to noise levels in the area. Appendix F shows the results of the noise modeling analysis and Figure 3.11-1a: Existing (No Project) Noise Contours and Figure 3.11-1b: Future (with Project) Noise Contours shows existing and projected noise level contours along local roadways within the Planning Area with the Proposed Plan. These results were evaluated against the noise compatibility standards in the General Plan, and where With-Project noise would be greater than the "Normally Acceptable" noise level in 2031, a traffic noise impact is considered to be potentially significant.

As shown in Appendix F, of the 1,371 roadway segments studied for expected noise increases under the Proposed Plan, the great majority (1,231 roadway segments or 90 percent), would experience a 3 dB or less increase in noise levels under the Proposed Plan compared to existing conditions. As noted in the Environmental Setting on page 3.11-5, a 3 dBA change in ambient noise levels is considered to be a barely perceivable difference. Thus, a 3 dB or less change in noise levels traffic would not constitute a significant impact, because such a change in ambient noise levels is considered just noticeable. However, there are several roadway segments (140 roadway segments) where noise levels are projected to increase an upwards of 66 dB under the Proposed Plan. Noise levels along such roadway segments studied could exceed the General Plan "Normally Acceptable" noise compatibility guidelines outlined in Table 3.11-6 and would increase by more than 3 dB over existing conditions, resulting in a potentially significant impact on sensitive receptors. Therefore, the City's General Plan outlines noise exposure regulations for sensitive receptors if noise levels exceed current guidelines. Actions to mitigate noise levels are required if exterior noise levels exceed these standards. The interior noise exposure level for residences, schools, and other noise sensitive development is limited to 45 dBA, consistent with State noise standards. Actions that ensure

interior noise levels do not exceed 45 dBA must be taken if exterior noise exposure exceeds the stated standards.

For noise exposure CNEL 65-74, the General Plan requires soundproofing existing residences, schools, and other noise sensitive developments to achieve interior noise levels of CNEL 45 or below. In addition, the General Plan requires adequate sound insulation for all new residential and other noise sensitive development in areas exposed to noise levels from CNEL 65-69. Areas exposed to noise levels above CNEL 70 should be avoided for new residential or noise sensitive development unless abated. For noise exposure CNEL 60-64, the General Plan requires acoustical studies of proposed new residential and other noise sensitive developments. It also requires sound insulation as necessary to achieve interior noise levels of CNEL 45 or below.

In addition, Monterey City Code Section 38-33 requires an acoustic analysis and noise mitigation program for residential units to be submitted with the use permit application for a mixed-use project in an area with noise generators such as traffic, evening activity, music, etc. in the immediate area. Noise mitigation measures may include insulation of walls and windows, placement of sleeping quarters in interior locations, and placement of closets and utility areas between the outside noise sources and living or sleeping areas. In Monterey City Code Section 38-99.7, all multi-family uses in the Multifamily Residential Overlay District shall conform to current noise insulation standards pursuant to the California Code of Regulations, Title 25, Chapter 1, Subchapter 1. Compliance with such codes will require developments to use state-of-the-art construction techniques that will mitigate outdoor activity noise to the greatest extent feasible.

As such, implementation of General Plan policies, as well as requirements codified in Section 38 of the Monterey City Code, would ensure potential noise impacts to sensitive receptors along major roadways in the Planning Area will be less than significant despite increases in traffic noise.

Mitigation Measures

None required.

Figure 3-11a: Existing (No Project) Noise Contours

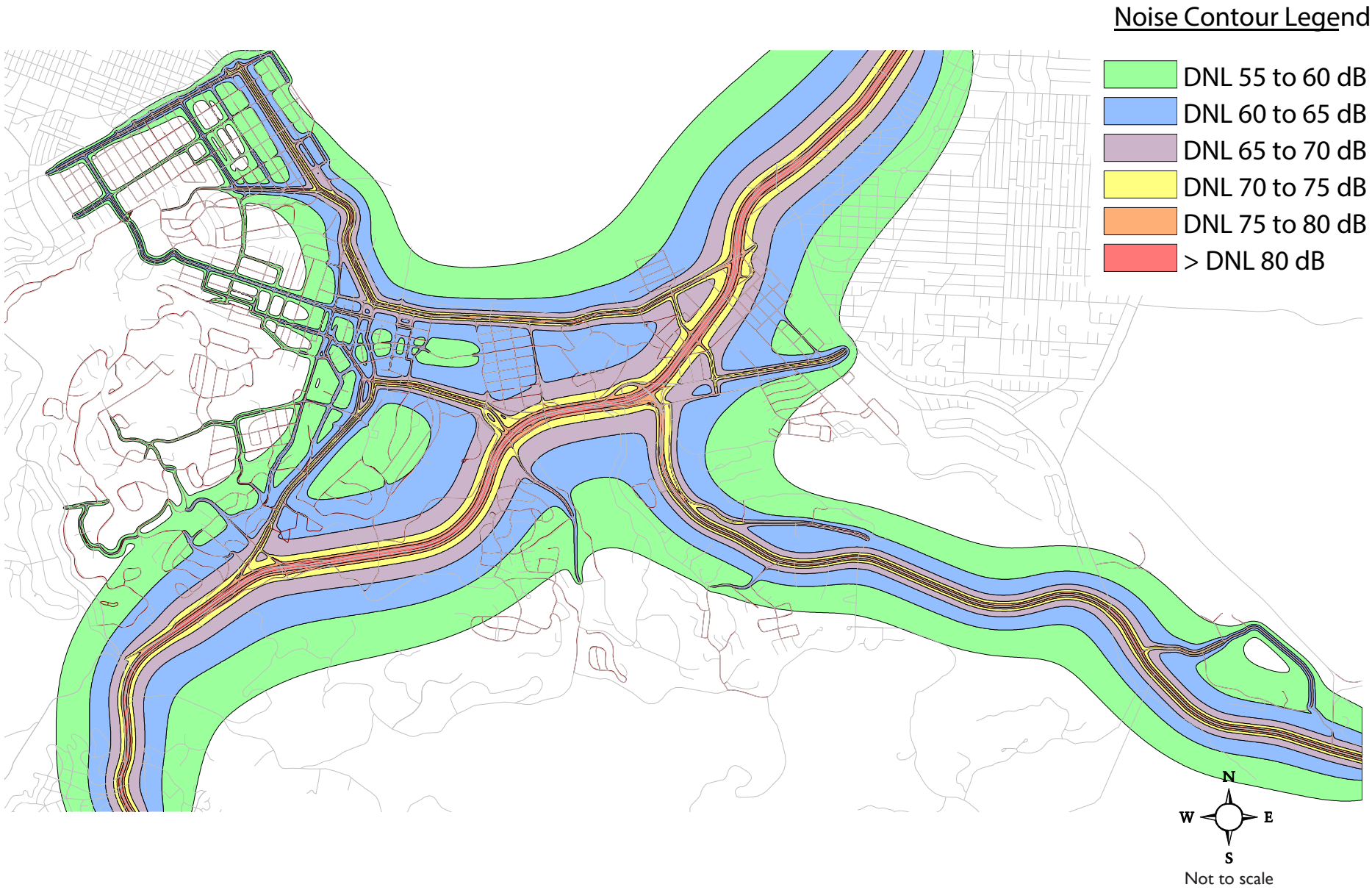
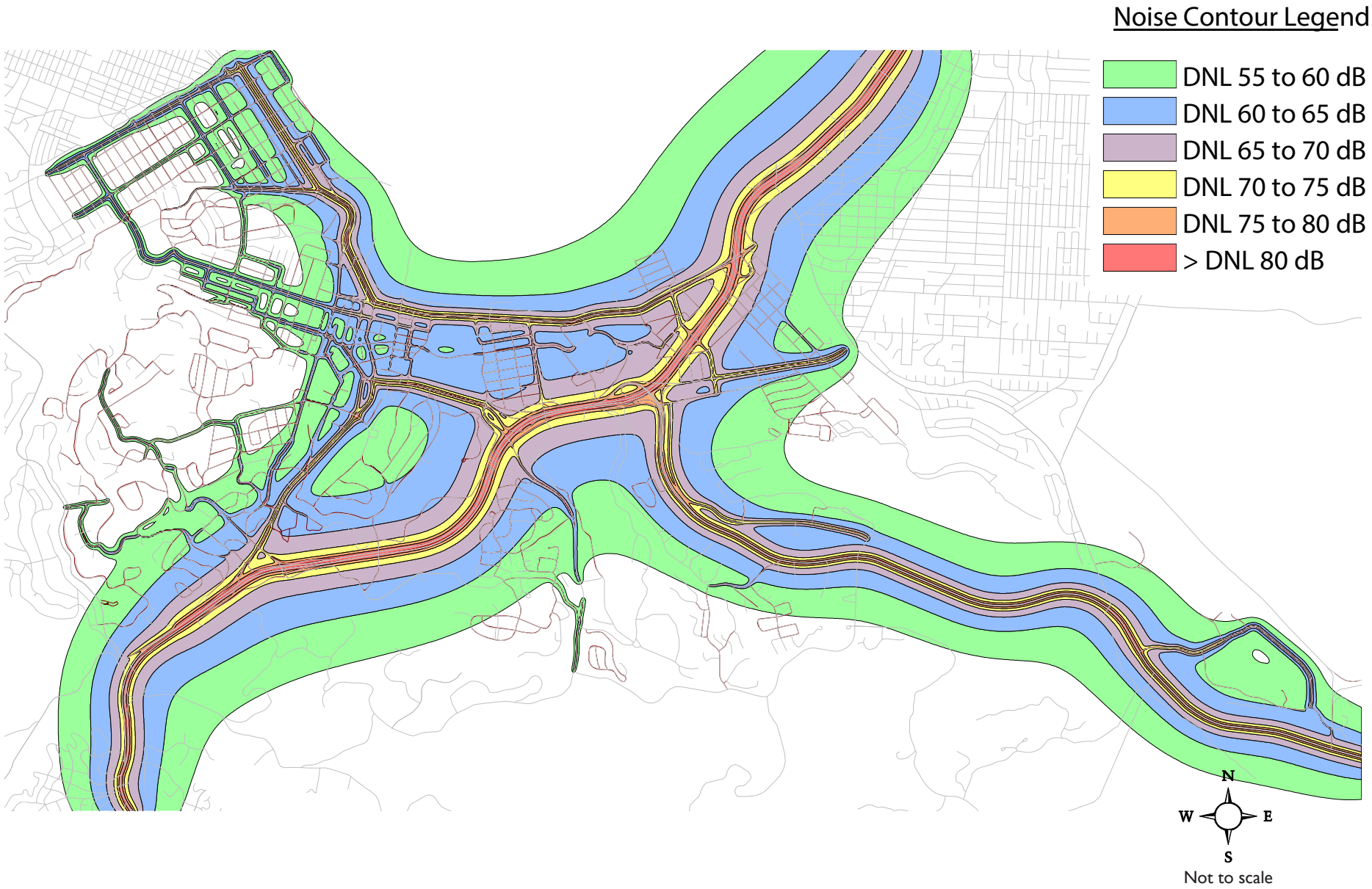


Figure 3-11b: Future (With Project) Noise Contours



Impact 3.10-2 Development under the Proposed Plan would not generate excessive groundborne vibration or groundborne noise levels. *(Less than Significant)*

Construction Vibration

Construction of individual projects facilitated by the Proposed Plan could intermittently generate groundborne vibration on and adjacent to construction sites. Buildings in the vicinity of a construction site respond to vibration with varying degrees ranging from imperceptible effects at the lowest levels, to low rumbling sounds and perceptible vibrations at minor levels, and up to minor damage at the highest vibration levels. Table 3.11-3 lists groundborne vibration levels from various types of construction equipment at various distances. The Proposed Plan would result in up to 5,800 new homes and 1,995 new jobs in Monterey by 2031. Of this, 5,548 units would consist of low-rise apartment buildings of no more than four stories. Applicable construction equipment, such as a large bulldozer, could approach vibration levels of 0.089 PPV at a distance of 25 feet from the source and 0.0315 PPV at 50 feet. Construction equipment with greater vibrational impacts, such as pile drivers, is typically needed for high-rise structures and as such is not applicable to the construction needs under the Proposed Plan.

Further, exemptions for construction activity based on time of day are outlined in the Monterey City Code. Per Section 38-112.2, the hours for all construction, alteration, remodeling, demolition, and repair activities which are authorized by a valid City Building Permit, as well as the delivery and removal of materials and equipment associated with these activities, are limited to the hours of 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. Compliance with such regulations would ensure the impacts related to excessive groundborne vibration are not significant. Therefore, compliance with applicable City Code policies and regulatory requirements, such as the construction hour restrictions, would ensure that construction vibration associated with development under the Proposed Plan would be minimized to the maximum extent practicable and impacts would be less than significant.

Operational Vibration

Stationary Source Vibration

As development occurs, there is generally a potential for more operational vibration sources to be developed. However, implementation of the Proposed Plan would not directly result in an increase of operational sources of vibration in the Planning Area. Additionally, should mechanical equipment be installed or new sources of vibration be constructed, the potential vibration effects would be analyzed in a project-specific environmental analysis. Further, vibration from mechanical equipment is generally localized, and it is unlikely that vibration effects would occur outside the immediate vicinity of the vibration-generating mechanical equipment. Monterey City Code Section 38-111 also does not permit any use, activity, or process to produce vibrations that are perceptible without instruments by a reasonable person at the property lines of a site. As such, stationary source vibration impacts associated with implementation of the Proposed Plan would be less than significant.

Traffic Vibration

There would be an anticipated increase in traffic in the Planning Area associated with both new development permitted within the Planning Area under the Proposed Plan and with regional traffic that may pass through the Planning Area (see Section 3.13: Transportation). Vibration resulting from vehicle traffic is generated primarily by heavy truck passage over discontinuities in the pavement (such as potholes, bumps, and expansion joints). Highway 1 and Highway 68, which bisect the city, are the major north-south and east-west highways that serve to connect Monterey to the wider region. Groundborne vibration generated by traffic traveling on roadways is generally below the threshold of perception at adjacent land uses, unless there are severe discontinuities in the roadway surface. This analysis assumes that roadways in the Planning Area are or would be reasonably maintained, with no severe discontinuities. Additionally, policies in the General Plan Noise Element address streetscape improvements and truck limits on local arterials that would serve to avoid traffic-related vibration impacts (Noise Element Policies a.1, a.2, a.3, a.4, a.5, and a.6). Therefore, vehicle traffic resulting from construction and operation of residential projects under the Proposed Plan would not be anticipated to result in substantial or excessive groundborne vibration and impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.10-3 The Proposed Plan would not be located within the vicinity of a private airstrip or an airport land use plan or expose people residing or working in the Planning Area to excessive noise levels. (*Less than Significant)*

The nearest aviation facility is the Monterey Regional Airport, which is located immediately adjacent to the eastern City limits. According to the 2019 Airport Land Use Compatibility Plan (ALUCP), the City of Monterey is almost entirely within the Airport Influence Area. In particular, there are several sites proposed for development near the airport, including sites in the Fort Ord/Ryan Ranch opportunity area and sites along Garden Road and Highway 68. As such, development pursuant to the Proposed Plan could result in the location of sensitive receptors in areas that may be subject to excessive noise from the airport and the impact is potentially significant.

As detailed above in the Environmental Setting, the ALUCP identifies noise hazards associated with the airport and identifies zones where certain uses are prohibited and restricted in order to protect public health and safety. Portions of the Fort Ord opportunity area and the 50-acre MPUSD parcel south of Highway 68 are within Zone 3, which prohibits all residential except for low density residential and infill in developed areas. However, the proposed Land Use Element establishes a new Airport Compatibility Overlay (AC-O) that applies to properties in airport safety zones 1 through 6 as identified in the Monterey Regional Airport Land Use Compatibility Plan (ALUCP) in order to protect airport operations and ensure public safety. Existing uses are permitted to continue on sites within the AC-O, and new development and expansion of existing uses shall only be permitted where the compatibility criteria or the infill exemption criteria of the ALUCP can be met. Further, Program 1-H and Program 1-I of the proposed Housing Element would also help

ensure compatibility with the ALUCP, requiring future land uses planned on the Fort Ord property and the Highway 68 Area Plan boundaries that are within the Monterey Regional Airport Influence Area to be compatible with the ALUCP. As such, no conflicts with ALUCP zones would result.

The ALUCP also identifies the airport's noise contours. The 65 dB contour is predominantly limited to the airport's jurisdiction and does not overlap with areas where development is permitted or on housing sites identified in the Housing Element. Compliance with the General Plan Exterior Noise Exposure Standards for New Development would also limit the potential for placement of new sensitive uses within the 65 dB contour. Further, City standards and the California Building Code require an interior sound rating of 45 dB for new development involving for residences, schools, and other noise sensitive uses. As such, with adherence to State and local regulations and Proposed Plan standards, policies, and programs, implementation of the Proposed Plan would not expose people to excessive noise levels related to airport activities and there would be a less than significant impact with respect to this criterion.

Mitigation Measures

None required.

3.12 Public Services and Recreation

This section provides an evaluation of potential impacts on public facilities and services as a result of the Proposed Plan, including impacts related to fire, police, school services, and park and recreation facilities. This section describes existing public services and facilities in the planning area, as well as relevant federal, State, and local regulations and programs. The location of public facilities and educational institutions is shown on Figure 3.12-1.

There were no responses to the NOP regarding environmental impacts related to public services and recreation.

Environmental Setting

PHYSICAL SETTING

Police Services

The Monterey Police Department (MPD) services the City of Monterey. Headquartered at 351 Madison Street, MPD is comprised of a Patrol Division that maintains 24-hour police patrol throughout the community, an Investigations Division that conducts criminal investigations, an Administration Division that provides records and jail support, and the Office of the Chief which provides strategic direction as well as accountability and financial and analytic support.

While the MPD provides traditional law enforcement services, it is also responsive to the myriad of other issues that it is tasked with. One example is the MPD Multi-Disciplinary Outreach Team (MDOT) which is comprised of police officers and social workers. MDOT social workers and MPD Community Action Team (CAT) police officers, work collaboratively to bring services to those who are in need and address quality of life issues. All of the social workers are funded by cooperating governmental and non-governmental entities, but they have full access to the MPD and have "touch-down" work stations at the MPD and are on-site at least once a week. MPD participates in the California State Mutual Aid System, which facilitates inter-jurisdictional police collaboration for emergency services. Monterey is in Mutual Aid Region II, with Alameda County acting as the regional coordinator. The Monterey office of the Coastal Division of California Highway Patrol provides highway and traffic safety services in the unincorporated areas of Monterey County in addition to all freeways, including Highway 1 and portions of Highway 68.[1]

[1] California Highway Patrol. (730) Monterey. Available: https://www.chp.ca.gov/find-an-office/coastal-division/offices/(730)-monterey. Accessed: September 19, 2023.

Staffing

MPD has a staff of 53 sworn officers and 19 civilian staff members.[2] MPD's Annual Report identifies that in 2021 the average staffing ratio was 1.80 sworn officers per 1,000 city residents based on the city's 2020 population of 30,218.[3] MPD has maintained a steady police force of 53 sworn officers between 2017 and 2021, though has plans to increase to 60 officers in the next five to ten years. In 2021, the MPD logged 50,036 calls for service.

Equipment

The Police Department maintains 15 patrol vehicles and in order to accommodate the increase in projected staffing over the next five to ten years, MPD plans to add two additional patrol vehicles. The City is planning to develop a new public safety facility, which would include MPD, the Monterey Fire Department Administrative Facility, Monterey Fire Station 11, an Emergency Operations Center, an additional resource building, and parking for the co-located buildings. If this occurs at the current police and fire site, the footprint would remain relatively similar, but there would be an increase in the total square footage of the current buildings (built in 1959), which would be demolished, and new facilities constructed. Alternatively, the City may acquire a pre-existing facility in Monterey and convert it to a shared Public Safety facility.

Fire Protection

The Monterey Fire Department (MFD) provides fire protection for a service area that includes the City of Monterey, the U.S. Army Defense Language Institute Foreign Language Center at the Presidio of Monterey, the Naval Support Activity Monterey Naval Postgraduate School and their housing located at La Mesa Village, as well as the cities of Sand City, Carmel-by-the-Sea, Pacific Grove, and the Monterey Peninsula Airport.[4]

Staffing

The department has 86 paid full-time personnel and two part-time Fire Inspectors. Fire staffing consists of three shifts that work 24 hours a day, seven days a week. Each shift works two days on and four days off (48/96 schedule) with a minimum of 23 personnel per shift (including the assigned Division Chief). The department's administration consists of one Fire Chief, one Assistant Chief, three Division Chiefs assigned to shifts, one Training Division Chief, one Deputy Fire Marshal, and two Part-Time Fire Inspectors.

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[2] City of Monterey. 2021. Monterey Police Department Annual Report. Available: https://files.monterey.org/Document%20Center/Police/MPD%20ANNUAL%20REPORT_2021_Final.pdf. Accessed: August 21, 2023.

[3] City of Monterey. 2021. Monterey Police Department Annual Report. Available: https://files.monterey.org/Document%20Center/Police/MPD%20ANNUAL%20REPORT_2021_Final.pdf. Accessed: August 21, 2023.

[4] City of Monterey. About (Fire). Available: https://monterey.org/city_hall/fire/about/index.php, Accessed: August 21, 2023.

Table 3.12-1: Monterey Fire Department Stations

Fire Station	*Address*
Fire Station 11	600 Pacific Street, Monterey, CA
Fire Station 12	582 Hawthorne Street, Monterey, CA
Fire Station 13	401 Dela Vina Avenue, Monterey CA
Fire Station 14	600 Pine Avenue, Pacific Grove, CA
Fire Station 15	On 6th Avenue between Mission and San Carlos Streets, Carmel-by-the-Sea, CA
Fire Station 16	1600 Airport Road, Monterey Regional Airport, CA

Source: City of Monterey. Fire Stations. Available: https://monterey.org/city_hall/fire/operations/fire_stations.php. Accessed: August 21, 2023

Support personnel includes one Senior Administrative Analyst, one Fire Prevention Technician, and an Administrative Assistant. There are six fire stations within the area served by Monterey Fire which are listed in Table 3.12-1 and shown on Figure 3.12-1. Fire Station 11 is adjacent to Monterey Police headquarters and is currently being evaluated for redevelopment as a new facility to meet the needs of the Fire and Police Departments. New construction would not result in increased staffing for MFD. Fire Station 14 is in the City of Pacific Grove and primarily serves that city. Similarly, Fire Station 15 is in the City of Carmel-by-the-Sea and primarily serves that city. In addition, Fire Station 16 currently serves the Fort Ord/Ryan Ranch, Garden Road, Fisherman's Flats, Deer Flats areas and the Highway 68 corridor. It is operated under a contract with Monterey Airport District and, under provisions of that contract, is only available during the hours of 8:00 am and 7:59 pm to respond to those areas.[7] During the "nighttime" hours, those areas are served by other Monterey Fire stations. The City is presently evaluating options for providing improved service levels to this portion of the city.[8]

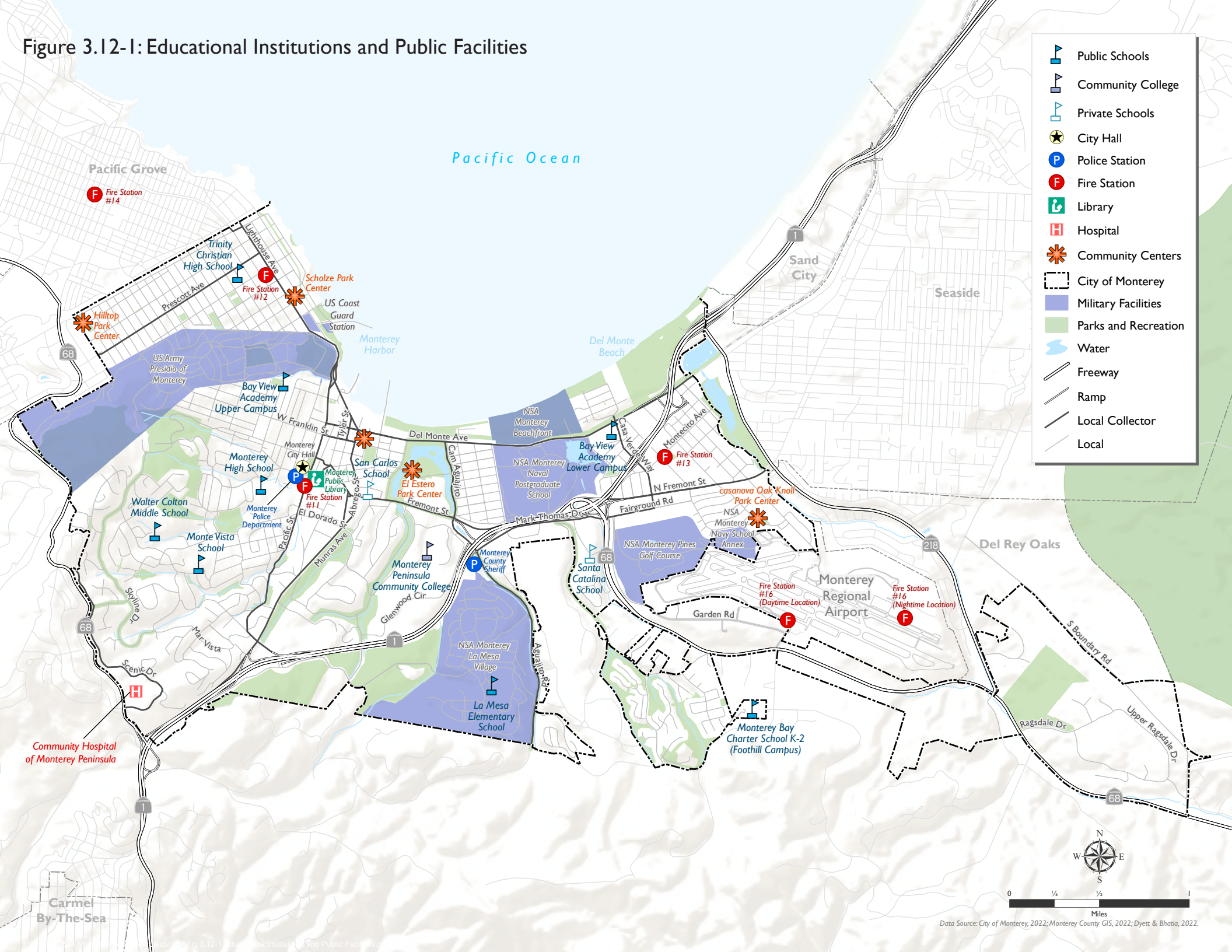
Equipment

The City of Monterey operates various pieces of firefighting equipment including: six first out pumping engines, one 100' Aerial tractor-drawn Tiller Truck, one 37' Fire Boat, one Urban Search and Rescue (USAR) truck/trailer, one Type 3 Wild land Unit, one Aircraft Rescue and Fire Fighting (ARFF) Truck, , one Command Vehicle, one OES Fire Engine. In addition, there are four Staff Vehicles and numerous reserve vehicles.

[7] Monterey Peninsula Airport District Board of Directors. August 16, 2023 Board of Directors Meeting Packet. Available: https://montereyairport.specialdistrict.org/files/833a2b1a9/20230816+Packet.pdf. Accessed: January 22, 2024.

[8] G. Panholzer, personal communication, November 10, 2023.

Figure 3.12-1: Educational Institutions and Public Facilities



Data Source: City of Monterey, 2022; Monterey County GIS, 2022; Dyett & Bhatia, 2022.

Service Calls and Response Time

Since 2016, response calls have increased from 8,296 to 9,405 incidents annually.[9] In 2022, approximately 56 percent of MFD's emergency responses throughout its service area were for rescue and medical assistance, and MFD responded to 9,405 calls throughout its service area.[10] Based on the city's 2022 population of 28,079,[11] this equates to approximately one MFD service call per 2.98 people in the city. According to a 2022 report by Citygate, in instances of smaller fires and less complex emergencies that require a single- or two-unit response, the department provides an average call-to-arrival time of six minutes, 42 seconds which is 48 seconds faster than Citygate's best practice recommendation of seven and a half minutes. For larger or more complex incidents that require more units and personnel to control, MFD averages a 10-minute and 37-second call-to-arrival performance which is 53 seconds faster than the Citygate-defined 11-and-a-half-minute baseline.[12]

Schools

The Monterey Peninsula Unified School District (MPUSD) serves the City of Marina, Sand City, Seaside, and Del Rey Oaks, in addition to City of Monterey.[13] MPUSD consists of two preschools, three transitional kindergarten through 8th grade schools, seven elementary schools, two middle schools, three comprehensive high schools, and one continuation high school. The Planning Area is served by five of these schools, as shown in Table 3.12-2. In recent years, MPUSD has seen declining student enrollment. District-wide enrollment decreased from 10,658 enrolled students in the 2018–2019 school year to 9,809 students in the 2022-2023 school year.[14] As shown in Table 3.12-2, while there have been some increases in enrollment for some schools, overall enrollment in MPUSD schools serving the Planning Area has decreased from 2,728 students in 2018-2019 to 2,673 students in 2022-2023. As of 2023, MPUSD facilities have a capacity of 14,523 seats, well beyond current enrollment at all school levels. In addition, Table 3.12-3 demonstrates that enrollment projections for MPUSD forecasts a total decrease from 8,944 in 2023 to 8,311 in 2032. Enrollment

[9] City of Monterey. Response Statistics (Fire). Available: https://www.monterey.org/city_hall/fire/about/response_statistics.php#collapse1850b0. Accessed: August 21, 2023.

[10] City of Monterey. 2022. Response Statistics. Available: https://www.monterey.org/city_hall/fire/about/response_statistics.php#collapse1850b0. Accessed: August 21, 2023.

[11] California Department of Finance. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2023. Available: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2023/. Accessed: January 22, 2024.

[12] Citygate Associates, LLC.Community. April 29, 2022. Risk Assessment and Standards of Cover Study, Volume 1 of 2: Technical Report. Available: https://files.monterey.org/Document%20Center/Fire/Administration/Vol1-Monterey-CRA-SOC-Study-Technical-Report-22_0429.pdf, Accessed: October 18, 2023.

[13] Monterey Peninsula Unified School District. 2023. About Us. Available: https://www.mpusd.net/apps/pages/index.jsp?uREC_ID=1019885&type=d&pREC_ID=1305113. Accessed: August 21, 2023.

[14] DataQuest. 2023. Enrollment by Grade. Monterey Peninsula Unified Report (27-66092). Available: https://dq.cde.ca.gov/dataquest/dqcensus/EnrEthGrd.aspx?cds=2766092&agglevel=district&year=2022-23. Accessed: August 29, 2023.

projections factor in the approximately 5,800 new residential units from housing element implementation over the next 10 years.

Table 3.12-2: Enrollment at Monterey Peninsula Unified District Schools Serving the Planning Area (2018-2023)

School	*Address*	*Enrollment*				
		2018-2019	*2019-2020*	*2020-2021*	*2021-2022*	*2022-2023*
La Mesa Elementary School	1 La Mesa Way, Monterey, CA	431	437	339	450	564
Monte Vista Elementary School	251 Soledad Dr, Monterey, CA	365	362	352	413	572
Monterey High School	101 Herrmann Dr, Monterey, CA	1,350	1,337	1,292	1,356	1,399
Walter Colton Middle School	100 Toda Vista, Monterey, CA	569	553	509	313	129
Total		**2,728**	**2,704**	**2,502**	**2,540**	**2,673**

Source: DataQuest. 2018-2023. Enrollment by Grade. Monterey Peninsula Unified Report (27-66092). Available: https://dq.cde.ca.gov/dataquest/SearchName.asp?rbTimeFrame=oneyear&rYear=2022-23&cName=Monterey+Peninsula&Topic=Enrollment&Level=District&submit1=Submit. Accessed: August 21, 2023

Schools

There are two other private schools in Monterey: Trinity Christian High School (680 Belden Street), serving ninth through twelfth graders and San Carlos School (450 Church Street), serving kindergarten through eighth grade. There are two charter schools in Monterey, Monterey Bay Charter School Foothill Campus (1700 Via Casoli), serving kindergarten through second grade and Bay View Academy Lower and Upper Schools (222 Casa Verde Way and 190 Seeno Street), serving kindergarten through eighth grade. In addition, Monterey Peninsula College (MPC) is a public community college in Monterey (980 Fremont Street). CEQA is mainly concerned with public schools, as increased enrollment could trigger the need to spend public funds on construction that could result in environmental impacts.

Libraries

The City of Monterey Public Library, located at 625 Pacific Street, serves the Planning Area and was the first public library in California founded in 1849.[15] The approximately 23,000-square-foot library building was first constructed in 1953 and rehabilitated most recently in 1983. The library was marked as one of the city's landmark buildings in 2012.

[15] City of Monterey. 2020. Monterey Public Library Feasibility Study. Available: https://monterey.org/MPLibrary/Documents/Get%20Involved/Library%20Facility%20Feasibility%20Study.pdf. Accessed: August 30, 2023

Table 3.12-3: MPUSD Enrollment Projections

Grade	*2023*	*2024*	*2025*	*2026*	*2027*	*2028*	*2029*	*2030*	*2031*	*2032*
T-K	183	196	209	210	209	202	195	189	197	195
K	529	535	541	544	541	525	507	489	510	505
1st	566	546	552	554	551	534	516	498	519	514
2nd	632	576	558	560	568	550	531	511	532	525
3rd	620	626	579	562	571	565	544	524	542	536
4th	594	628	635	586	574	570	561	540	554	547
5th	604	589	625	628	593	571	565	555	562	556
6th	584	572	561	592	617	577	555	549	562	553
7th	586	566	560	549	569	590	553	535	548	547
8th	578	585	569	559	553	568	588	552	548	551
9th	689	756	772	751	726	706	735	748	731	694
10th	825	720	782	793	767	729	707	735	779	739
11th	820	839	737	794	805	767	727	705	764	785
12th	815	827	848	744	801	809	770	730	719	771
Total	8,944	8,875	8,838	8,733	8,751	8,567	8,350	8,148	8,361	8,311
Capacity	14,523	14,523	14,523	14,523	14,523	14,523	14,523	14,523	14,523	14,523
Open Seats	5,579	5,648	5,685	5,790	5,772	5,956	6,173	6,375	6,162	6,212

Source: Monterey Peninsula Unified School District, Annual Enrollment Projection Report, 2023.

The library currently has a staff of 26 people, a collection of nearly 100,000 items, 14 Personal Computers (PC) computers and 10 laptops available for public use, and provides programming and resources for all ages.[16] [17] Within the library is a California History Room that contains historic maps, audio files, books and other items related to the history of California and the Monterey Region. Other services at the library include a variety of e-resources, free internet and wireless access, laptop borrowing services, access to photocopiers, programs and resources for kids and teens, as well as a two meeting rooms available for use by community groups.[22] The City currently supports State and local library infrastructure bond measures for the construction of new libraries, which, if approved, would contribute to the library system and help to address the demand for library services in the city.

In 2020, the City of Monterey undertook a Library Feasibility Study to assess current facility conditions, library use patterns, gather community and stakeholder input, and conduct staff workshops to identify options to expand and improve library facilities. The Library Feasibility

[16] California State Library. 2022. California Public Library Statistics. Available: https://www.library.ca.gov/stats/?Year%5B%5D=FY21-22. Accessed: August 30, 2023.

[17] B. Edwards, personal communication, November 14, 2023.

[22] City of Monterey. Library Services, Monterey Public Library. Available: https://monterey.org/library/services/meeting_rooms.php. Accessed: August 30, 2023.

Study acts as a precursor to an implementation plan that will include funding strategies and communications plans to increase community awareness about potential upgrading or expansion of existing facilities. The Library Board endorsed a preferred strategy of a Level 3 Expansion, encompassing a 31,000-square-foot renovation and expansion of the Monterey Public Library at its current location.[23]

Parks, Recreational Facilities, and Harbors

Parks

The City of Monterey operates 37 public parks, representing approximately 772 acres of parkland in the Planning Area. Shown in Table 3.12-4 and Figure 3.12-2, these parks include neighborhood parks, community parks, pocket parks/mini parks, special use parks, regional parks, and greenbelts/open spaces.[24] Neighborhood parks are intended to provide open space and basic recreational facilities for residents in the vicinity of the park, while community parks provide space for organized sports and major facilities for the broader community, including swimming pools, ball fields, and community centers. Pocket parks/mini parks offer a small park tucked into the neighborhood fabric; special use parks include those that do not fit into a typical category such as beaches and the Monterey Tennis Center; regional parks are larger parks meant for broader, regional use; and greenbelts/open space offer patches of wild or undeveloped land around neighborhoods or urban parts of the city. These greenbelts include Skyline Forest, Veteran's Park, Monte Vista, Carmelo Street, Don Dahvee, Josselyn Canyon, Fisherman Flats, and Old Capitol Site; and open space includes Monterey State Beach, Del Monte Beach, Monterey State Beach, Lower Presidio Historic Park, and McAbee Beach.

The City of Monterey adopted the Parks and Recreation Master Plan in 2016.[25] The Plan outlines facilities across the city that need upgrading and describes a number of projects the City aims to undertake to improve aging parks and recreation facilities in Monterey. These include trail-wide and segment-specific improvements to Monterey's Recreation Trail, increasing connectivity across the existing park system, maintaining cleanliness in parks, making improvements across El Estero Park, designing and constructing a new waterfront community gathering area, improving circulation in Lower Presidio Historic Park, initiating renovations for Monterey Bay Park, improving amenities at Del Monte Beach, and working toward potential plans for both an ocean aquatic center and outdoor competitive swimming pool.

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[23] City of Monterey. 2020. Monterey Public Library Feasibility Study. Available: https://monterey.org/MPLibrary/Documents/Get%20Involved/Library%20Facility%20Feasibility%20Study.pdf. Accessed: August 30, 2023

[24] City of Monterey. Beaches, Parks, & Playgrounds. Available: https://monterey.org/city_hall/departments/beaches,_parks___playgrounds/#collapse4330b2. Accessed: August 29, 2023.

[25] City of Monterey. April, 2016. City of Monterey Parks & Recreation Master Plan. Available: https://www.monterey.org/Document%20Center/CommDev/Planning/Parks%20&%20Recreation%20Master%20Plan/16_1027-Final-PRMP.pdf. Accessed: August 31, 2023.

The Parks and Recreation Master Plan notes that Monterey provides approximately 6.4 acres of neighborhood and pocket parks, community parks, and special parks per 1,000 residents. Including public open space and regional parks, the service ratio rises to 27.3 acres per 1,000 residents. In addition, Monterey's parks are distributed throughout the city, offering a park, trail, or open space within a quarter mile, or a five-minute walk, for most residents. Factoring in the additional population of approximately 11,200 residents under the Proposed Plan, the City would still maintain a total park service ratio of 19 acres per 1,000 residents. The City has not established a service level standard of minimum park acreage per resident. However, considering Monterey's current level of service, quality, and type of facilities, as well as maintenance of a relatively stable population over time, the Master Plan determined that the City does not have a need to develop more parks.

Table 3.12-4: Existing Parks and Facilities

Park Name	*Park Size (Acres)*
Pocket Park	
Bruce Ariss Way Park/Cannery Row Worker's Memorial Park	.12
Cannery Row Park Plaza	.18
Ed Ricketts Park	.03
Griffin Plaza	0.16
Hartnell Gulch Park	0.6
Laguna Grande Court Park	0.07
Lagunita Mirada	1
Portola Plaza	0.66
Sensory Garden	0.41
Spanish Plaza	0.43
Neighborhood Park	
Archer Park & Hoffman Park	1.6
Casanova Oak Knoll Park	1.3
Cypress Park	1
Deer Flats Park	1
Fisherman's Flats Park	1.5
Laguna Grande Park	2.6
Larkin Park	1.3
Montecito Park	1
Oak Newton Park	2.5
Peter J. Ferrante Park	1
Community Park	
Colton Hall Lawn	1
El Estero Park Complex	45

Park Name	*Park Size (Acres)*
Fisherman's Shoreline Park	3.17
Friendly Plaza	0.78
Hilltop Park	2.8
Jacks Ball Park	3.7
Monterey Bay Park	4.8
San Carlos Beach Park	2.87
Scholze Park	1.2
Via Paraiso Park	10.6
Whispering Pines Park	3.1
Special	
Del Monte Beach	10
Frances Elkins Park	.12
Jacobsen Park	.49
Lower Presidio Historic Park	26
McAbee Beach City Park	0.14
Monterey Bay Coastal/Recreational Trail	3.87
Monterey Municipal Beach	.75
Monterey Tennis Center	
Parks Division Corporation Yard	6
Simoneau Plaza	0.2
Sister City Park	0.29
Veteran's Memorial Park	50
Regional	
Laguna Grande Regional Park	34.8
Open Space	
Clara Wooden Grove	0.5
Deer Flats Greenbelt	40
Descanso Greenbelt	6.35
Don Dahvee Park	35.8
Fisherman's Flats Greenbelt	5
Huckleberry Hill Nature Preserve	81
Iris Canyon Greenbelt	32.1
Old Capitol Site Greenbelt	134.4
Old Salinas Hwy (Minealas) Greenbelt	5.22
Quarry Park	10
Ryan Ranch Park	100
Skyline Drive Greenbelt	85.6

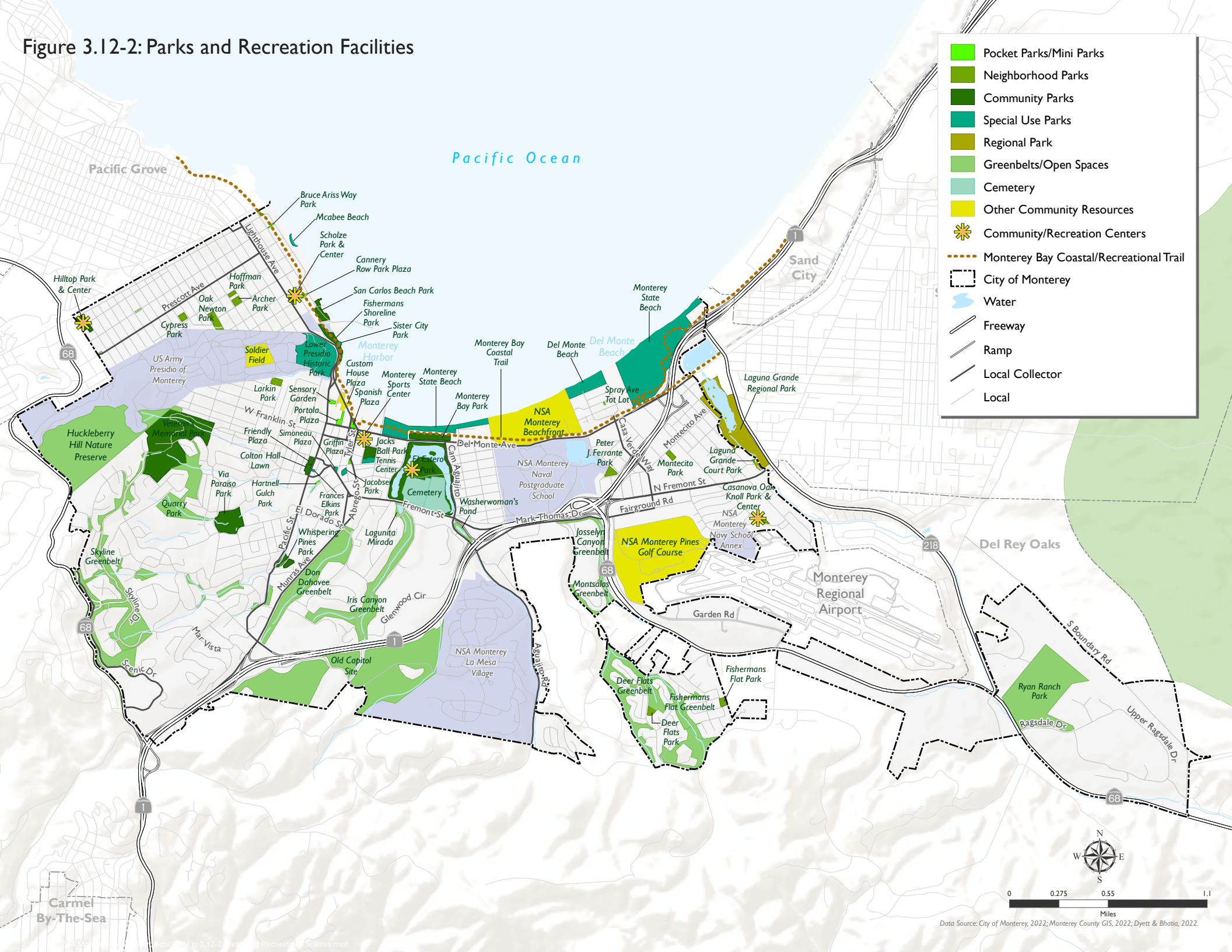
Park Name		*Park Size (Acres)*
Washerwoman's Pond		1.8
Woodridge Acres Greenbelt		3.8
Joint Use		
Bay View Charter School/Del Monte Elementary		1
Foothill Elementary School		2
La Mesa Elementary School		6.5
La Mesa Park Sites (3)		5.5
Bay View Charter School / Larkin Elementary		0.5
Monte Vista Elementary School		2
Monterey High School		4
Monterey Peninsula College		8
Soldier Field		9.5
Trinity Christian High School		1
Walter Colton Middle School		4
Community Resource		
Custom House Plaza		2
Monterey Pines Golf and RV (US NAVY)		102.64
Monterey State Beach		63.41
US Navy Beachfront		66.55
Total City Park Acreage	**771.8[1]**	**27.3 acres per 1,000 residents[2]**
Active/Passive Park Space	**195.4**	**6.9 acres per 1,000 residents**
Regional Parks	**34.8**	**1.2 acres per 1,000 residents**
Open Space	**541.6**	**19.1 acres per 1,000 residents**

Notes

1. Total city park acreage does not include joint use or community resource categories.
2. Service level ratio is based on 2020 California Department of Finance population estimates of 28,304 residents.

Source: City of Monterey Parks & Recreation Master Plan, August 2016; Dyett & Bhatia, 2023; City of Monterey.

Figure 3.12-2: Parks and Recreation Facilities



Recreational Facilities

The City operates five community/recreation centers to support community programs and events as shown on Figure 3.12-2 and listed in Table 3.12-5 below. These include Hilltop Park & Center, Monterey Sports Center, Scholze Park & Center, El Estero Park Center, and Casanova Oak Knoll Park & Center. Each community center provides a variety of meeting/multi-purpose rooms and recreational programming for all ages.

The Parks and Recreational Master Plan has not established any service ratio for recreational facilities. However, a number of recreational facilities upgrades are listed in the Master Plan, including installing free Wi-Fi at all community centers and the Sports Center, upgrading audio-visual systems, increasing operating hours, rebranding the Monterey Youth Center as El Estero Park Center, and repurposing the Teen Room as the Lake View Room that accommodates both meetings and recreational programming. The Parks Master Plan suggests future development of a multi-field sports complex, an outdoor competitive swimming pool, and a new Teen Center near the high school.

Table 3.12-5: Existing Recreation Facilities

Community Center	*Size (in ft²)*
Casanova Oak Knoll Park Center	5,110
Scholze Park & Center	9,437
El Estero Park Center	14,000
Hilltop Park & Center	18,400
Monterey Sports Center	71,255
Total	**2.71 acres**

Source: City of Monterey Parks & Recreation Master Plan, August, 2016

Waterfront and Harbors

In addition, the City offers public harbor facilities including Monterey Harbor Wharves No. 1 and 2, the Coast Guard pier, and boat launch pier.[26] Wharf No. 1 is available to visitors and residents. While Wharf No. 2 includes the Monterey Peninsula Yacht Club and a couple restaurants, it is used primarily for commercial fishing and recreational pier fishing. The City marina has 413 boat slips and offers transient slips on a first come first serve basis.[27] The Parks and Recreational Master Plan has not established any service ratio for public harbor facilities. However, the Master Plan references the Waterfront Master Plan which identifies potential new projects and opportunities

[26] City of Monterey. January, 2005. City of Monterey General Plan. Available: https://monterey.org/Document%20Center/CommDev/Planning/General-Plan/19_0604-General-Plan.pdf. Accessed: August 31, 2023.

[27] City of Monterey. Harbor & Marina. Available: https://monterey.org/city_facilities/harbor___marina/index.php. Accessed: August 31, 2023.

for parks spaces near the waterfront and harbors, such as a waterfront gathering area. The Plan also underscores the need for improved circulation, parking, and pedestrian improvements.[28]

REGULATORY SETTING

Federal Regulations

There are no federal regulations related to public services or recreation that apply to the Planning Area.

State Regulations

California Fire and Building Code

The State of California provides minimum standards for building design through the California Building Code (CBC), which is located in Part 2 of Title 24, California Building Standards Code, of the CCR. The CBC is based on the International Building Code but has been amended for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local building officials for compliance with the CBC. Typical fire safety requirements of the CBC include: the installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

California Code of Regulations

The California Code of Regulations, Title 5 Education Code, governs all aspects of education within the State. California State Assembly Bill 2926 (AB 2926) – School Facilities Act of 1986 – was enacted by the State of California in 1986 and added to the California Government Code (Section 65995). It authorizes school districts to collect development fees, based on demonstrated need, and generate revenue for school districts for capital acquisitions and improvements. It also established that the maximum fees which may be collected under this and any other school fee authorization are $1.50 per square foot ($1.50/ft2) for residential development and $0.25/ft2 for commercial and industrial development.

AB 2926 was expanded and revised in 1987 through the passage of AB 1600, which added Section 66000 et seq. of the Government code. Under this statute, payment of statutory fees by developers serves as total mitigation under CEQA to satisfy the impact of development on school facilities. However, subsequent legislative actions have alternatively expanded and contracted the limits placed on school fees by AB 2926.

Senate Bill 50, California Government Code 65995(b), Education Code Section 17620, and the Mitigation Fee Act

[28] City of Monterey. Parks Master Plan.

Senate Bill (SB) 50 (funded by bonds sold under Proposition 1A, approved in 1998) limits the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development and provides instead for a standardized developer fee. SB 50 generally provides for a 50/50 State and local school facilities funding match. SB 50 also provides for three levels of statutory impact fees. The application level depends on whether State funding is available, whether the school district is eligible for State funding, and whether the school district meets certain additional criteria involving bonding capacity, year-round school, and the percentage of moveable classrooms in use.

SB 50 amended the California Government Code Section 65995, which contains limitations on Education Code Section 17620, the statute that authorizes school districts to assess development fees within school district boundaries. Government Code Section 65995(b)(3) requires the maximum square footage assessment for development to be increased every two years, according to inflation adjustments. On January 24, 2018, the State Allocation Board approved increasing the allowable amount of statutory school facilities fees (Level I School Fees) to $3.79 per square foot of assessable space for residential development of 500 square feet or more, and to $0.61 per square foot of chargeable covered and enclosed space for commercial/industrial development.

Enacted as Assembly Bill (AB) 1600, the Mitigation Fee Act requires a local agency establishing, increasing, or imposing an impact fee as a condition of development to identify the purpose of the fee and the use to which the fee is to be put. The agency must also demonstrate a reasonable relationship between the fee and the purpose for which it is charged, and between the fee and the type of development plan on which it is to be levied. The act came into force on January 1, 1989.

Quimby Act

The 1975 Quimby Act (California Government Code section 66477) authorized cities and counties to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Under the Quimby Act, fees must be paid and land conveyed directly to the local public agencies that provide park and recreation services communitywide; however, revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities. The act states that the dedication requirement of parkland can be a minimum of three acres per thousand residents or more, and equal to the existing parkland provision (up to five acres per thousand residents) if the existing ratio is greater than the minimum standard. In 1982, the act was substantially amended. The amendments further defined acceptable uses of or restrictions on Quimby funds, provided acreage/population standards and formulas for determining the exaction, and indicated that the exactions must show a reasonable relationship to a project's impacts as identified through studies required by CEQA.

California Commission on Peace Officer Standards and Training

The California Commission on Peace Officer Standards and Training (POST) advocates for, exchanges information with, sets selection and training standards for, and works with law enforcement and other public and private entities. POST was established by the Legislature in 1959 to identify common needs that are shared by representatives of law enforcement.

Local Regulations

City of Monterey General Plan 2004 (General Plan)

The City of Monterey General Plan (General Plan) includes the following goals and policies associated with public services and recreation:

Open Space Element

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.1. Maintain greenbelts as open space.

Policy c.2. Coordinate with the County to preserve greenbelts, which form the backdrop of Monterey.

Policy c.3. Work with the County and others to preserve Monterey Pines where possible.

Goal f. Maintain and enhance the park system for City residents and visitors.

Policy f.1. Maintain the Parks and Recreation Master Plan to outline the City's current and future priorities.

Policy f.2. Acquire and retain land for current and future parks and recreation open space to serve residents' needs.

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.

Policy f.4. Provide a wide variety of quality leisure activity opportunities for all residents of the City.

Policy f.5. Be flexible in providing for special needs as dictated by current trends and changing interests of the citizens of Monterey.

Policy f.6. Provide ongoing efficient and effective design, development, renovation, and management of visually aesthetic and functional park areas and facilities.

Policy f.7. Coordinate public and private agencies and community groups in the planning and development of park and recreation programs and facilities.

Policy f.8. Maintain our parks in excellent condition.

Parks & Recreation Master Plan (2016)

The City of Monterey 2016 Parks and Recreation Plan serves to identify projects, opportunities, and framework for decision-making that will guide the City over the next 15 years to more

effectively adapt and evolve with the community's needs and interests. The Plan was informed by community input, demographics and trends analysis, recreation and facilities, and existing programs and policies. The goals of the Parks & Recreation Master Plan include:

1. **Unique Sense of Place:** Enhance and celebrate Monterey's unique sense of place through excellent park and facility design, and integration of art, history and community.
2. **Diverse Community:** Design, build and maintain facilities that support Monterey's diverse community.
3. **Economic and Environmental Sustainability:** Ensure that the Parks and Recreation system is economically and environmentally sustainable.
4. **Accessible Parks and Facilities:** Ensure adequate safety and accessibility for all users.

Monterey City Code

Chapter 27 of the Monterey City Code requires that Monterey City adhere to the standards for the recruitment and training of peace officers and public safety dispatchers established by the California Commission on Peace Officer Standards and Training (POST), since Monterey City is qualified to receive aid from the State of California pursuant to Section 13522, Chapter 1 of Title 4, Part 4 of the California Penal Code. Pursuant to Section 13512 of said Penal Code the Commission and its representatives may take measures to ensure peace officer and public safety dispatcher personnel adhere to selection and training standards established by POST.

Article 1 of Chapter 13 covers regulations related to Fire Protection including adoption of the 2022 California Fire Code and its various amendments. Chapter 23, Parks, covers a variety of regulations for recreations areas and parks, including specific regulations for El Estero Park and Ed Ricketts Park. Regulations include limitations on dogs, camping, picnicking, golf, skate parks, swimming, boating, fishing, and other special regulations. Chapter 2 of Article 6 defines the Parks and Recreation Commission, who are responsible for recommendations to the City Council for new parks development, developing and maintaining the Parks & Recreation Master Plan, as well as reviewing applications for major special events. Section 33-31 of Article 3 of Chapter 33 defines school site dedications. A subdivider who develops or completes the development of a subdivision within the MPUSD or other elementary schools must dedicate to the school district lands that the Planning Commission deems necessary for constructing schools.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if implementation of the Proposed Plan would:

Criterion 1: **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service**

ratios, response times or other performance objectives for any of the public services:

a. Fire protection,

b. Police protection,

c. Schools,

d. Parks, or

e. Other public facilities;

Criterion 2: **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; or**

Criterion 3: **Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.**

METHODOLOGY AND ASSUMPTIONS

Criteria from Appendix G of the State CEQA Guidelines were used to determine whether the Proposed Plan would have a significant impact related to public services and recreation. Potential project-related impacts were analyzed based on their potential to result in either physical degradation of public facilities, or a reduction of public service ratios such that construction of a new public service facility would be required to meet service ratio needs. Future service ratios anticipated under project conditions were compared to goal ratios identified in applicable documents (e.g., the General Plan), as well as other local planning documents, to identify the project's potential to result in impacts. In addition, correspondence with service providers is located in Appendix C of the DEIR.

RELEVANT PROPOSED GOALS AND POLICIES

The Proposed Plan contains the following goals and policies relevant to public services and recreation. The full text of proposed Housing Element programs is included in Appendix B for reference:

Housing Goal #1. Increase housing supply and facilitate production of at least 3,654 new homes by 2031.

Policy 1.1 Promote infill development in adopted Specific Plan areas where high density residential development can be accommodated in proximity to employment, shopping, transit, recreation, and other services.

Program 1-E **Education Workforce Housing Overlay.**

Program 1-H **Fort Ord/Ryan Ranch Specific Plan.**

IMPACTS

Impact 3.12-1 Implementation of the Proposed Plan would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protection, police protection, schools, parks, or other public facilities. (*Less than Significant with Mitigation*)

Police Protection Service

A significant impact would result if substantial adverse physical impacts associated with the provision of new or altered police facilities would occur as a result of buildout under the Proposed Plan. While the Monterey Police Department (MPD) has not established any other service ratios or response time goals at this time, buildout of the Proposed Plan would result in increased calls for service. While buildout would occur incrementally over a period of 8 years, the resulting increase in calls for service would require additional staff and equipment.

MPD has existing plans in place to increase staffing over the next five to ten years from 53 to 60 officers and to acquire two additional patrol vehicles. However, as noted above, MPD and MFD have plans to develop a new joint public safety facility, either through redevelopment at the current 351 Madison Street location or by acquiring a pre-existing facility in Monterey and converting it to a shared public safety facility. Though not funded, the planned facility would be sufficient to accommodate increased MPD staffing and equipment needed to accommodate the increase in calls for service anticipated with buildout of the proposed Plan.[29] Therefore, no additional new or physically altered police facilities over and above those already planned would be required as a result of the Proposed Plan. Impacts would be less than significant.

Mitigation Measures

None required.

Fire and Emergency Services

A significant impact would result if substantial adverse physical impacts associated with the provision of new or altered fire protection facilities would occur as a result of buildout under the Proposed Plan. According to Citygate's Community Risk Assessment and Standards of Cover Study[30], the Monterey Fire Department (MFD) is appropriately staffed and deployed to protect the jurisdictions it serves, with response performances meeting recognized best practice goals.

[29] [29] D. Hober, personal communication, July 26, 2023.

[30] Citygate Associates, LLC. 2022. Community Risk Assessment.

However, the projected increase in population, housing units, and jobs generated by the Proposed Plan would likely result in a subsequent increase in fire and emergency medical service calls to the Planning Area compared to existing conditions. Growth would occur incrementally over the 8-year planning period.

Despite a steady increase in calls for service since 2016, MFD does not have plans to increase staffing or equipment levels over the next eight years. Current staffing and equipment levels provide an adequate number of staffing for fires, medical, or rescue situations and would be sufficient to handle the potential increase in incidents in infill areas with buildout of the Proposed Plan.[31] However, fire and emergency medical response services are currently provided to the eastern portion of the city from Station 16, which is leased from the Monterey Airport District and it isn't well suited to provide increased services to that portion of Monterey. As such, a dedicated City-owned fire station would likely be needed to serve that area. While the location and design of this facility cannot be known at this time, the construction of the facility could potentially result in environmental impacts. Therefore, implementation of Mitigation Measure PF-1 is required.

Mitigation Measures

MM PF-1: In parallel with preparation of the Fort Ord/Ryan Ranch Specific Plan pursuant to Program 1-H of the proposed Housing Element, the City shall:

- Identify in the southeastern part of Planning Area a location for the station that minimizes disruption to sensitive ecosystems, wildlife habitats, and natural resources;
- Require the use of stormwater management measures to control and treat stormwater runoff to prevent pollution and soil erosion during construction;
- Develop a plan for the proper handling, recycling, and disposal of construction waste to minimize the impact on local landfills and ecosystems;
- Establish erosion control measures, which may include erosion control barriers, sediment traps, and other best management practices to prevent soil erosion and sedimentation of nearby water bodies;
- Require measures to protect and preserve existing vegetation, including trees and native plants, during construction activities;
- Implement best management practices to minimize noise and air pollution during construction, including dust and emissions control measures; and
- Require the use of fire-safe building materials and design features to limit the risk of damage or loss due to wildfire.

Implementation of Mitigation Measure PF-1 would reduce the potential environmental impacts associated with construction of the fire station to the maximum extent practicable. Therefore, at a programmatic level, impacts would be less than significant with mitigation.

Significance After Mitigation: Less than Significant with Mitigation.

[31] G. Panholzer, personal communication, July 26, 2023.

Schools

Buildout of the Proposed Plan would result in up to 5,800 new homes and 10,125 new residents in the planning area by 2031. While buildout of the Proposed Plan would occur incrementally over the planning period, the growth in population would increase the number of school aged children in Monterey. However, as shown in Table 3.12-3, enrollment projections generated by MPUSD using the Predictive Enrollment Analytics tool indicate that even with an additional approximate 5,800 housing units, MPUSD student populations will continue to decrease between 2023 and 2031 and not exceed total capacity of 14,523 students in any year of the planning period. To the extent that enrollment at any individual school would exceed capacity, excess enrollment would be managed first through intra-district transfers, rather than through the construction of new school facilities. Nevertheless, MPUSD estimates that it would need to expand some existing facilities and potentially alter current lease agreements with private and/or charter schools in order to meet the projected need.[32] New residential and mixed-use development under the Proposed Plan would be required to pay standard school impact fees, which would cover a fair share of any need for altered school facilities. As provided by California Government Code Section 65996, the payment of such fees is deemed to fully mitigate the impacts of new development on school services. Impacts would be less than significant.

Additionally, implementation of Program 1-E of the proposed Housing Element would result in the construction of approximately 100 units of educational workforce housing on MPUSD school campuses. The environmental impacts related to traffic, noise, and air quality and GHG emissions during construction and operation of the educational workforce housing have been considered at a programmatic level throughout this EIR. Detailed design of the educational workforce housing has not yet been completed, so site specific impacts cannot be evaluated at this time; however, construction of the educational workforce housing would be subject to separate project-level CEQA review at the time the design is proposed in order to identify and mitigate project-specific impacts not identified in this EIR as appropriate.

Mitigation Measures

None required.

Parks

A significant impact would result if substantial adverse physical impacts associated with the provision of new or altered park facilities would occur as a result of buildout under the Proposed Plan. Buildout of the Proposed Plan would result in up to 5,800 new homes and 11,200 new residents in the planning area by 2031. While buildout of the Proposed Plan would occur incrementally over the planning period, the growth in population would increase demand for parks. As noted above, the City does not have an adopted parks service standard; however, the current parkland ratio in Monterey is 27.3 acres per 1,000 residents, and with growth projected under the Proposed Plan, that ratio would be 20 acres per 1,000 residents. This ratio far exceeds the typical ratio of 3 acres per thousand residents defined in State law (Quimby Act of 1975). Therefore, the

[32] Personal communication with Ryan Altemeyer, Associate Superintendent of Business Services, Monterey Peninsula Unified School District, September 25, 2023.

current acreage of parkland in Monterey would be sufficient to meet the needs of the projected 2031 population and no new or expanded City park facilities are envisioned as part of the Proposed Plan. In the future, if new or expanded City park facilities are proposed, their construction and operation would be subject to separate project-level CEQA review.

Mitigation Measures

None required.

Library Facilities

The projected population growth under the Proposed Plan would increase demand for library services in Monterey. The City has not adopted level of service standards for the provision of library services; however, as noted above, the Library Board has endorsed a long-term strategy for a 31,000-square-foot renovation and expansion of the Monterey Public Library at its current location. It is anticipated that future demand for library services under the Proposed Plan would be through the continued provision of online services in combination with the aforementioned renovation and expansion. As such, the Proposed Plan would not require the construction of new or expanded library facilities beyond those already envisioned. Impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.12-2 Development under the Proposed Plan would not 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 (Less than Significant)

A significant impact would result if development under the Proposed Plan would increase the use of existing parks or recreational facilities such that physical deterioration of the facility would occur. As discussed under Impact 3.12-1, development under the Proposed Plan and construction of pipeline projects would result in up to 5,800 new units and 10,125 new residents in the Planning Area compared with existing conditions. As such, growth associated with implementation of the Proposed Plan could increase use of the City's existing neighborhood and of regional parks such that physical deterioration of the facility would occur or be accelerated. However, the level of deterioration would not exceed that normally expected to occur in an urban environment, given that Monterey has a wealth of municipal and regional park and recreational facilities distributed throughout the community and that growth under the Proposed Plan would occur incrementally throughout the community over a period of eight years. Further, the Parks and Recreation Master Plan describes a number of projects the City aims to undertake to improve aging parks and recreation facilities in Monterey through 2030. As such, impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.12-3 Development under the Proposed Plan would not require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. (*Less than Significant*)

A significant impact would result if development under the Proposed Plan would require the construction or expansion of recreational facilities such that environmental impacts would occur. As discussed under Impact 3.12-1, the increased local population generated by the Proposed Plan would likely use existing public service and community facilities within the city, including community centers, the Monterey Public Library, and school spaces that could be used for community activities, as well as regional recreational facilities, such as the Laguna Grande Regional Park and the Monterey Recreation Trail. Project implementation would therefore result in increased use of recreational facilities in the City and the surrounding area. However, given the extent of existing facilities in Monterey and the surrounding area and that development under the Proposed Plan would happen throughout the city and occur incrementally over the eight-year planning period, population growth with implementation of the Proposed Plan would not be expected to result in the substantial physical deterioration of existing facilities or to require construction or expansion of recreational facilities to meet the needs of new residents. As such, overall implementation of the Proposed Plan would have a less than significant impact with respect to impacts associated with the construction or expansion of recreational facilities.

Mitigation Measures

None required.

3.13 Transportation

This section evaluates the potential impacts to transportation that could arise from implementation of the Proposed Plan. The analysis evaluates the possible impacts of the Proposed Plan on vehicle miles traveled (VMT), and determines if the Proposed Plan would conflict with adopted policies, plans, and programs regarding public transit and bicycle and pedestrian facilities, substantially increase hazards due to a design feature or incompatible uses, or result in inadequate emergency access.

Travel behavior within the last year has changed at a global level due to the COVID-19 pandemic. In Monterey and the surrounding areas, travel patterns (both amount and mode of trips) have changed significantly since the "shelter-in-place" order was issued on March 17, 2020, and subsequently modified. Unless otherwise noted, the existing conditions presented in this section, such as roadway volumes and transit schedules, are based on data collection or observations prior to the start of the pandemic. The impact analysis presented in this section is generally based on the assumption that long-term travel behavior characteristics would be similar to conditions prior to the start of the pandemic, because, at present, the medium- or long-term effects of the COVID-19 pandemic on travel behavior are uncertain and it would be speculative to estimate any potential long-term or permanent changes.

There were multiple comments on the Notice of Preparation related to transportation. The Transportation Agency for Monterey County (TAMC) expressed their support for the development of a detailed Traffic Impact Analysis and the General Plan's proposed Travel Demand Management (TDM) strategies. TAMC recommended considering the inclusion of policies that support the maximum use of the Monterey Coast Trail, a description of intended future uses of the Monterey Branch Line, a discussion of free transit service, and proposed Fort Ord Regional Train and Greenway. California Department of Transportation (Caltrans) submitted a comment letter with multiple comments regarding the transportation impacts, sorted by topic areas of Traffic Impact Studies, Complete Streets and Mobility Network, Land Use and Smart Growth, Right-of-Way, and Climate Adaption. In addition, LandWatch cited a letter that asserts that residential development on the Former Fort Ord would likely cause significant transportation impacts in the form of vehicle miles travelled well above the regional average. One public commenter also hoped to see increased multi-modal transportation with the increased density. These comments are addressed in the following Environmental Setting and Impact Analysis.

Environmental Setting

PHYSICAL SETTING

Circulation Network

The City of Monterey is responsible for planning, constructing, and maintaining roadways in the Planning Area.

California State Highway System

The California State highway system is a network of highways that are owned and maintained by the California Department of Transportation (Caltrans). State highways that pass through Monterey include California State Route 1 (Highway 1), a north-south highway that runs through the center of Monterey, as well as California State Route 68 (Highway 68), an east-west highway that serves as a major route between Salinas and Monterey Peninsula. State Route 218 (SR 218) also connects Highway 1 and Highway 68 in Monterey County. SR 218 takes an approach north of Monterey Regional Airport via the cities of Seaside and Del Rey Oaks.

City of Monterey Circulation Network

City of Monterey's circulation network includes over 222 lane miles of roadway. The majority of the lane-miles serve as access for local access to residences, of note are the City's major thoroughfares. Major thoroughfares are roadways which carry through traffic and provide a network connecting to the state highway system. The City's major thoroughfares complement the Transportation Agency for Monterey County's Congestion Management Plan identified routes as listed:

- Foam Street, from Lighthouse Avenue to City Limit
- Lighthouse Avenue, from Washington Street to City Limit
- Del Monte Avenue, from Washington Street to City Limit
- Fremont Street, from Camino Aguajito to Abrego Street
- North Fremont Street, from City Limit to Highway 68 (Monterey-Salinas Highway)
- Munras Avenue/Abrego Street, from Fremont Street to Via Zaragoza, from Fremont Street to Via Zaragoza

Truck Routes

Truck routes include a highway, or portion of a highway, or a series of connected highways, on which heavy trucks may be present and travel at any and all times. Table 3.13-1 and Figure 3.13-1 identify truck routes in the Planning Area.

Table 3.13-1: Truck Routes

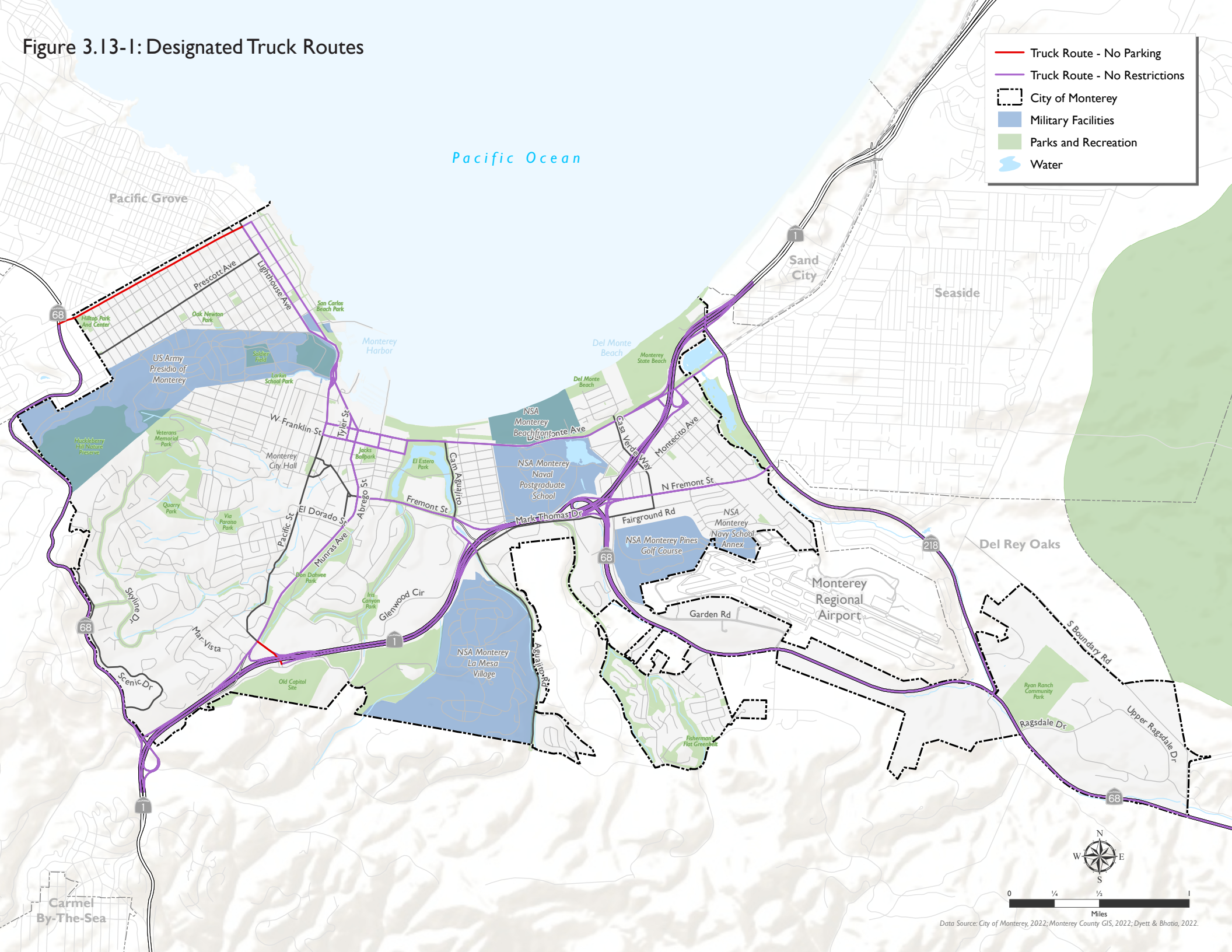
Street	Limits
Abrego Street	Eldorado Street to Pearl Street/Washington Street
Aguajito Road	Fremont Street to Mark Thomas Drive/Highway 1 NB Exit Ramp
Camino El Estero	Del Monte Avenue to Franklin Street
David Avenue	Wave Street to Devisadero Street (West City Limit)
Del Monte Avenue	Pacific Street to East City Limit
English Avenue	Del Monte Avenue to Highway 1 NB Exit Ramp
Figuero Street	Franklin Street to Commercial Wharf II
Foam Street	Lighthouse Avenue to David Avenue
Franklin Street	Pacific Street to Camino El Estero
Freemont Street	Highway 1/Aguajito Road to Abrego Street
Hannon Avenue	Del Monte Avenue to Highway 1 SB Entrance Ramp
Lighthouse Avenue	Washington/Del Monte Avenue to North City Limit
Munras Avenue	Eldorado Street/Abrego Street to Highway 1 SB Ramps
North Freemont Street	Highway 1 to East City Limit
Olmsted Drive	Monterey/Salinas Highway (SR68) to Monterey Peninsula Airport Entrance
Pacific Street	Lighthouse Avenue to Franklin Street
Soledad Drive	Munras Avenue to Highway 1 NB Entrance Ramp
Tyler Street	Lighthouse Avenue to Franklin Street
Washington Street	Pearl Street/Abrego Street to Del Monte Avenue

Source: City of Monterey, 2031 General Plan Update, Circulation Element, 2024.

Other Transportation Facilities

The Monterey Regional Airport terminal is located outside of the City of Monterey boundaries. The airport is most frequently used for domestic travel and on occasion for military air-craft landings. The City of Monterey operates and manages a harbor and marina in Monterey Bay. The U.S. Coast Guard (USCG) operates a home port out of the Monterey harbor at the Breakwater USCG Pier.

Figure 3.13-1: Designated Truck Routes



Vehicle Miles Traveled

One performance measure used to quantify automobile travel is VMT, which refers to the amount of automobile travel attributable to a project as well as the distance traveled. In 2013, Governor Brown signed Senate Bill (SB) 743, which added Public Resources Code Section 21099 to the California Environmental Quality Act (CEQA). Public Resources Code Section 21099 changed the way transportation impacts are analyzed in transit priority areas, and aligns local environmental review methodologies with statewide objectives to reduce greenhouse gas (GHG) emissions, encourage infill mixed-use development in designated priority development areas, reduce regional sprawl, and reduce VMT in California[1].

Increased VMT leads to various direct and indirect impacts on the environment and human health. Among other effects, increased VMT on the roadway network leads to increased emissions of air pollutants, including GHGs, and increased energy consumption. The transportation sector is associated with more GHG emissions than any other sector in California. As documented in the City's Climate Action Plan, about 57 percent of the City's GHG emissions are produced by local transportation. Reducing VMT is one of the most effective means for reducing the City's GHG emissions.

VMT is typically an output from travel demand models. Its calculation is based on the estimated number of vehicles multiplied by the distance traveled by each vehicle. This analysis uses the following VMT metrics:

- **Household VMT per capita,** which measures all the VMT by motor vehicle on a typical weekday associated with a residential use, such as trips to work, school, or shop, and divides that VMT by the number of residents in the Planning Area.
- **Commute VMT per worker,** which measures all of the worker commute VMT by a motor vehicle on a typical weekday between homes and workplaces and divides that VMT by the number of workers in the Planning Area.

Existing Transit System

Monterey-Salinas Transit (MST) is the principal transit service for the city and the surrounding communities. MST is a joint powers agency with a board of directors that includes a representative from the city. Thirteen MST routes currently serve the citizens of the community. Simoneau Plaza located in downtown Monterey is the transfer center for all routes serving the city. The MST Trolley is an example of a tourist serving transit line which promotes the City's "Park Once" program encouraging visitors to park once and reduce high demand to the transportation network. Senior and disabled citizens can use the MST fixed-route and Direct Area Response Transit (DART). MST also operates the RIDES program for disabled citizens. These routes operate on weekdays and Saturdays from approximately 7:00 AM to 11:00 PM and from approximately 7:30 AM to 5:30 PM on Sundays and holidays.

[1] State of California Governor's Office of Planning and Research. CEQA Transportation Impacts (SB 743). Available: https://opr.ca.gov/ceqa/sb-743/. Accessed: January 23, 2024.

Existing Bicycle and Pedestrian System

According to Move Monterey, the Multimodal Plan for the City of Monterey,[2] the City maintains an extensive network of bike paths, including 5.8 miles of Class 1, 15.9 miles of Class II, 0.95 miles of Class III, and 1.1 miles of Class IV bike paths. The most notable bicycle and pedestrian path is the Monterey Bay Coastal Recreation Trail (Recreation Trail) that is located along the Monterey Bay coastline. The Recreation Trail is a dual use facility that offers people destination opportunities, such as the restaurants or retail stores along Cannery Row or Fisherman's Wharf, or one of many parks for relaxing or wildlife viewing and sightseeing. Another Class I facility is the Munras Avenue Path, which runs from El Dorado Street to the Del Monte Shopping Center and provides an important pedestrian connection between major commercial areas and schools and provides access to the State Historic Park.

In addition, Monterey has several types of infrastructure that form the pedestrian network. Sidewalks exist throughout most of the City; however, there are some neighborhoods with gaps in the sidewalk. No comprehensive inventory of sidewalks or pedestrian crossing exists. In addition to the Citywide Wayfinding Sign Program, there are some other pedestrian wayfinding signs in the downtown area. Portola Plaza is currently a pedestrian–only facility that is used for seasonal events like the annual car show and ice–skating. Every Tuesday afternoon/ evening Alvarado Street is closed to vehicular traffic for the Downtown Farmers Market. This weekly event is very popular and has raised interest in the community to provide more permanent pedestrian–only streets in other parts of the city.[3]

Planned Transportation Network Changes

Several changes are planned for various transportation modes within and near the Planning Area as described below; these changes include projects planned by the City and/or other agencies, and are not related to the Proposed Plan; they would be implemented regardless of the Proposed Plan. Changes with reasonably foreseeable approval and funding are assumed in the analysis of future-year 2031 conditions. However, not all planned changes have final design plans, full approvals, and/or full funding. Planned changes for transportation modes are summarized below by primary travel category.

Planned Roadway Changes

Del Monte / Casa Verde / Recreation Trail Intersection Improvement Project – In summer 2018, the City of Monterey applied for Highway Safety Improvement Program (HSIP) grant funding for the design and construction of intersection improvements at the intersection of Del Monte Avenue and Casa Verde Way, including the recreational trail crossing at Casa Verde Way. The City was awarded grant funding for the project, and the scope includes:

- Relocation of the Trail Crossing to the intersection,

[2] City of Monterey. 2021. Move Monterey Multimodal Plan for the City of Monterey. Available:
Available; https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf. Accessed: October 23, 2023.

[3] Ibid.

- Protected left turn phase,
- Realignment of crosswalks for a more direct crossing,
- ADA improvements to crosswalks,
- Median improvements for pedestrian crosswalk, and
- Mountable splitter island at Casa Verde Way and Robertson Avenue to separate vehicular traffic and reduce U-turns.

Planned Bicycle Changes

New Bikeways – New bikeways, as shown in Figure 3.13-2, will connect to the existing bicycle network and future ridership patterns, consistent with future growth patterns described in the General Plan.

Planned Pedestrian Changes

Sidewalk Inventory – When the opportunity arises, given staffing restraints, the City would like to develop a comprehensive inventory of existing sidewalks and sidewalk gaps, which includes information such as approximate length and width of sidewalk.

Crosswalk Inventory – The City would like to develop a comprehensive inventory of existing marked crosswalks and features, which includes marked crosswalks, signalized/unsignalized crosswalks, and rectangular rapid flashing beacons (RRFB).

ADA Transition Plan – The City of Monterey has created an ADA Transition Plan in order to identify City programs, services and activities and provide recommendations on improvements including curb ramp improvements. As of May 2020, the City is working on ADA Improvements through Measure P/S, funding the reconstruction of over 131 curb ramps and the design of an additional 125 curb ramps.

REGULATORY SETTING

State

California Department of Transportation (CALTRANS)

Caltrans owns and operates three State highways in the area – Highway One, Highway 68 and Highway 218. Caltrans is proposing to improve traffic operations and reduce collisions with wildlife on an approximately nine-mile stretch of State Route 68 in Monterey County by modifying the design of nine intersections from Josselyn Canyon Road to San Benancio Road and by providing five new underground culverts for wildlife to use to cross under the highway. The proposed work would extend from highway post mile 4.8 to post mile 13.7 (west to east). Two build alternatives are being evaluated in the Project Approval and Environmental Document phase. Alternative 1 would convert nine intersections into roundabouts; eight would be converted into single-lane roundabouts, and one would be converted into a two-lane roundabout. Alternative 2 would include expanded signalized intersections with adaptive signal control technology and enhanced lane channelization to provide auxiliary through lanes and additional right and left turn lanes. Both alternatives would provide improved bicycle and pedestrian facilities and replacement lighting where necessary. Both alternatives would replace drainage facilities and utilities that would

necessitate relocation due to the intersection modifications. Temporary construction easements would be required for access to nearby properties for construction activities where necessary. This project is currently undergoing environmental review.

Senate Bill 743

SB 743 has changed the way transportation impact analysis is conducted as part of CEQA compliance. With these changes, automobile delay, level of service (LOS), and other similar measures of vehicular capacity or traffic congestion are no longer the basis for determining significant impacts under CEQA. According to SB 743, these changes are intended to "more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions." In December 2018, the Governor's Office of Planning and Research (OPR) completed an update to the CEQA Guidelines to implement the requirements of SB 743. The guidelines state that VMT must be the metric used to determine significant transportation impacts. The guidelines require all lead agencies in California to use VMT-based thresholds of significance for transportation impact analysis in CEQA documents published after July 2020.

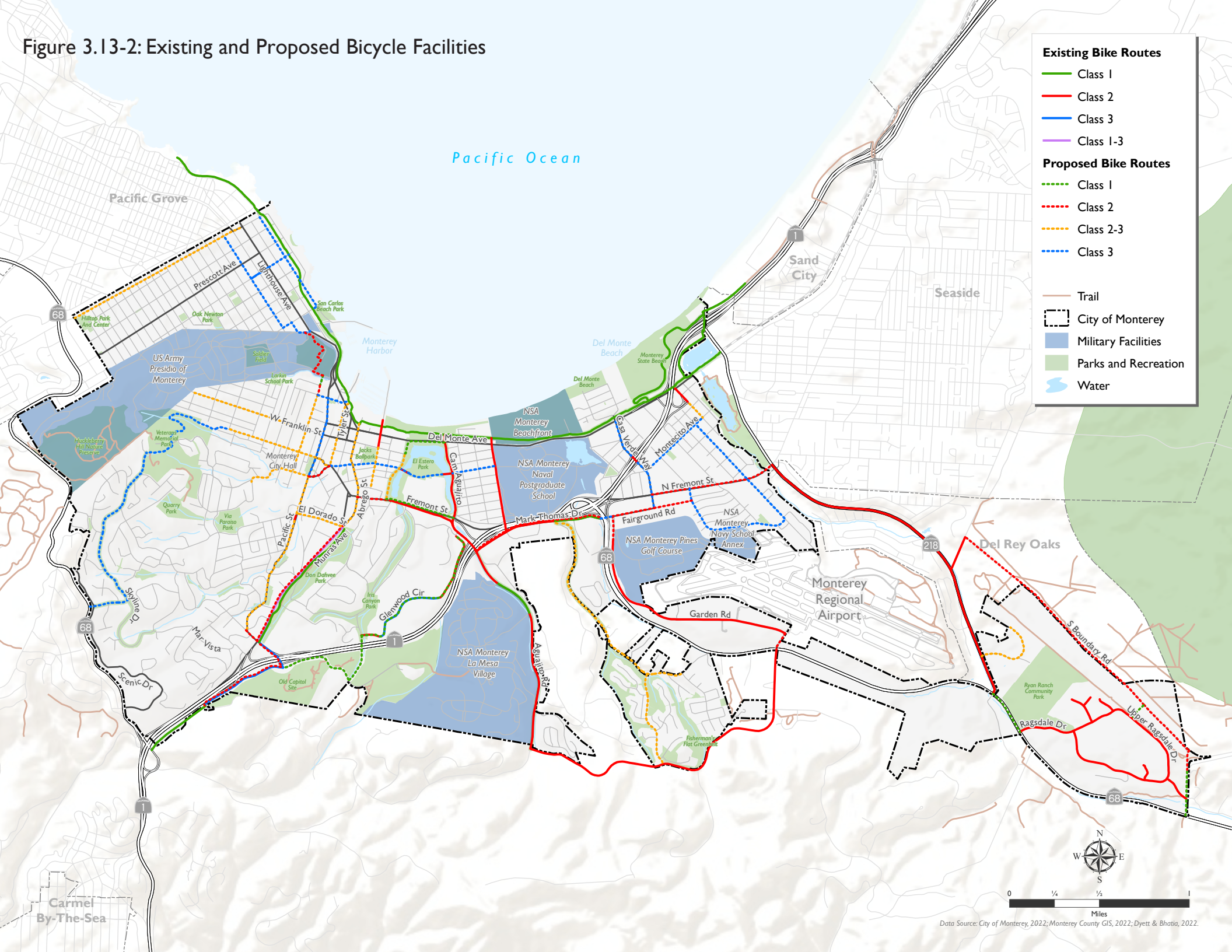
Regional

Transportation Agency for Monterey County

Transportation Agency for Monterey County (TAMC) is a countywide transportation-planning agency responsible for developing long range transportation plans, administering Measure X, a 3/8 cent sales tax in Monterey County dedicated to transportation, distributing local, State, and federal transportation grants, and administering several transportation projects and programs. TAMC is a 23-member agency which consists of local officials from each of its twelve incorporated cities and five county supervisorial districts, and ex-officio members from seven public agencies.

The TAMC also administers the Safe Routes to Schools (SR2S) Program, which the City of Monterey participates in. The program works to relieve traffic congestion around schools by promoting alternatives to commuting to school, such as walking, biking, taking the bus and carpooling. In addition, the program helps improve safety, promote a healthy lifestyle for youth, and enhance the sense of community in neighborhoods. It does this through classroom education, special events, infrastructure improvements, a crossing guard program, and other strategies.TAMC is currently working with Caltrans on a proposed project to convert the Highway 68 corridor from signalized intersections into roundabouts.

Figure 3.13-2: Existing and Proposed Bicycle Facilities



Data Source: City of Monterey, 2022; Monterey County GIS, 2022; Dyett & Bhatia, 2022.

Local

Multimodal Plan for the City of Monterey

The City's Multimodal Mobility Plan (Move Monterey) addresses the City's needs to create a safe and effective pedestrian, bicycle, and transit network. The plan supports enhancements to and maintenance of an extensive network of sidewalks and Class I, II, III, and IV bicycle facilities as well as increases ADA access to pedestrian and transit facilities. In 2021, the City was able to update its Move Monterey Plan to include chapters that will help Monterey manage traffic and accommodate a variety of users. New chapters include Complete Streets, Vehicle Miles Traveled, Vision Zero, and Transportation Demand Management. Move Monterey includes strategies for new development to incorporate in order to create and maintain a safe and effective pedestrian, bicycle, and transit network.

Monterey City Code

Chapter 20 of the City Code is the City's Motor Vehicles and Traffic Ordinance. The ordinance outlines regulations regarding administration and enforcement; operation of vehicles; pedestrians; stopping, standing, and parking; loading zones; parking meters; parking lots; and other special regulations. Chapter 33, Section 24 outlines street and arterial regulations for subdivisions. The street design of the subdivision shall relate to the pattern of thoroughfares designated in the General Plan and to any other existing or proposed street designs approved by the Planning Commission. The street pattern of the subdivision shall provide for the most advantageous development of adjoining lots, the neighborhood, and the community; and shall be designed to carry the ultimate traffic of the subdivision and of any other lands it may serve. The street system shall be designed to retain and protect existing vegetation wherever possible; and shall be designed in harmony with the topography and natural landform.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if the Proposed Plan would:

Criterion 1: **Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities.**

Criterion 2: **Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).**

Criterion 3: **Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment).**

Criterion 4: **Result in inadequate emergency access.**

METHODOLOGY AND ASSUMPTIONS

This section describes the methodology for VMT forecasts developed for this transportation assessment and as supporting data for other assessments in the CEQA document including the GHG assessment. The new CEQA Guidelines Section 15064.3(b)(4) establishes that the lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Appendix H includes the VMT forecast methodology and impact assessment performed by Kimley-Horn for the Proposed Plan.

For the determination of transportation-related significant impacts, the following major land uses were analyzed:

- Residential
- Employment-based (Manufacturing and Mining, Construction, Finance and Real Estate, Service, Public, Agriculture, Wholesale, Education, Health)

The most recent version of the Association of Monterey Bay Area Governments Travel Demand Model (AMBAG RTDM) served as the primary tool for calculating VMT across all land uses. The AMBAG TDM has a base year of 2015 and a future year of 2045. Both were employed to assess the VMT impacts of the land uses across three specific analysis scenarios. The land uses were evaluated based on these scenarios:

- Baseline – 2015 land use in the incorporated and unincorporated areas of the County
- 2031 No Project – 2031 land uses in the incorporated and unincorporated areas based on housing element (HE) update in the County, excluding the City of Monterey.
- 2031 Proposed Plan – 2031 land uses in the incorporated and unincorporated areas based on housing element update, including the City of Monterey.

The analysis methodology used the transportation analytics platform Replica to establish the existing thresholds. Subsequently, the analysis results using the AMBAG RTDM as described above was used to evaluate future land use scenarios to adjust the Replica data to make impact determinations.

Vehicle Miles Traveled Threshold

CEQA Guidelines Section 15064.3 requires that the determination of significance for transportation impacts be based on VMT instead of a congestion metric such as level of service (LOS). The change in the focus of transportation analysis is the result of SB 743. OPR's Technical Advisory provides recommendations for implementing Section 15064.3 of the CEQA Guidelines related to VMT. OPR recommends that if a project does not achieve a level of 15 percent or more below regional or citywide VMT, it may indicate a significant transportation impact. Based on these criteria, the City of Monterey has adopted the following VMT thresholds of significance:

- Residential: 15 percent below existing county-wide average VMT per capita
- Employment: 15 percent below existing county-wide average Work VMT per employee

Transportation Demand Management

The Proposed Plan includes several Transportation Demand Management (TDM) strategies which would incentivize the use of alternatives to vehicle trips and reduce VMT. These include proposed Land Use and Housing Element policies and programs which promote infill intensification and Circulation Element policies which would promote non-motorized transportation and proactively manage parking demand. Relevant Proposed Plan policies and programs are listed below.

RELEVANT PROPOSED GOALS AND POLICIES

The Proposed Plan contains the following goals and policies relevant to transportation. The full text of proposed Housing Element programs is included in Appendix B for reference:

Circulation Element

Goal A: A transportation network that is complemented by land uses that are easily accessible by walking, bicycling, and utilizing transit.

> **Policy A.2:** Continue to use land-use policies to concentrate development within walking distance of the transit system.
>
> **Policy A.3:** Encourage transit/pedestrian oriented (TOD/POD) designs in mixed-use neighborhoods.
>
> **Policy A.4:** Update the parking and transportation fund, which is used to fund transportation improvement projects and non-infrastructure programs as outlined in the City's multimodal plan.
>
> **Policy A.10:** Require proposed developments to provide ADA improvements, sidewalks or pedestrian connections, bicycle facilities, or transit facilities which would provide active transportation access to the development.

Goal B: A safe and well-maintained roadway system that efficiently moves people and goods across all modes of transportation.

> **Policy B.1:** Create and maintain a roadway system of "Complete Streets" that is safe and easy to use for all modes of transportation.
>
> **Policy B.3:** Prioritize infrastructure projects which optimize the existing street network before investing in costly roadway and parking expansion projects.
>
> **Policy B.4:** Prioritize bicycle and pedestrian mobility improvements over vehicle convenience.
>
> **Policy B.7**: Encourage the implementation of transportation projects that optimize the traffic operations along the arterial street network.

Goal C: A safe, reliable, connected and integrated bicycle transportation network that encourages bicycling as a primary mode of transportation for residents, employees, and visitors.

Policy C.2: Increased bicycle connectivity between neighborhoods and major city and regional destinations.

Policy C.3: Maintain designated bicycle routes as attractive and safe transportation facilities to provide viable alternatives to automobile travel.

Policy C.5: Identify commuter routes, which provide more direct bicycle connections for residents and visitors.

Policy C.6: Establish and maintain a current list of bicycle improvement projects in the City's multimodal plan to create a connected bicycle transportation network.

Policy C.8: Support implementation of regional active transportation networks, such as the Fort Ord Regional Trail and Greenway (FORTAG) and Monterey Bay Sanctuary Scenic Trail (MBSST), which connect pedestrians and bicyclists from Monterey to the greater Monterey Bay Area.

Policy C.9: Require development projects to provide on-site facilities such as bicycle parking, storage and showers, provide connections to existing and future planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks/multi-use paths and/or bicycle lanes, or contribute to the cost of improvements. Ensure that projects are designed and/or retrofitted to be efficiently served by buses, bike routes and pedestrian connections.

Goal D: A safe, accessible connected integrated pedestrian transportation network that encourages walking as a primary mode of transportation for residents, employees, and visitors.

Policy D.3: Increase pedestrian connectivity between neighborhoods and major city and regional destinations.

Policy D.4: Establish and maintain a current list of pedestrian improvement projects in the City's multimodal plan to create a continuous pedestrian network throughout the City.

Policy D.6: Continue to identify and prioritize projects which would improve accessibility for all pedestrians, such as ADA ramps, audible pedestrian signals, sidewalk widenings or any other transportation infrastructure improvement that could improve accessibility.

Policy D.7: Require that development projects provide internal pedestrian connections and linkages to adjacent public streets, neighborhoods and community facilities. Ensure that projects are designed and/or retrofitted to be efficiently served by buses, bike routes and pedestrian connections.

Goal E: An integrated multi-modal transportation network that supports and encourages transit use, including Bus, Bus Rapid Transit (BRT), and Rail.

Policy E.2: Encourage use of the MST Trolley service to connect visitors between Downtown Monterey and Cannery Row.

Policy E.3: Coordinate with Monterey-Salinas Transit (MST) on changes to the local transit service.

Policy E.4: Install transit priority system, where feasible, in collaboration with MST.

Policy E.5: Collaborate with MST and area jurisdictions to improve access to transit.

Policy E.6: Collaborate with MST to provide attractive amenities at transit stops in the City.

Policy E.7: Protect the potential for future rail transportation by supporting the efforts of the Transportation Agency for Monterey County (TAMC) to provide additional passenger rail service.

Policy E.8: Require development projects to enhance access to transit. Ensure that projects are designed and/or retrofitted to be efficiently served by buses, bike routes and pedestrians connections.

Goal G: Parking that efficiently utilizes existing facilities and encourages a reduction in auto travel.

Policy G.2: Implement a demand-based pricing structure for public parking.

Policy G.8: Incorporate bicycle parking in parking lots and garages for both public and private development.

Goal H: A transportation network supported by projects and programs that work towards zero collisions involving serious or fatal injuries.

Policy H.2: Prioritize transportation improvements that enhance pedestrian and bicycle safety.

Goal J: A transportation network that is more efficient through the use of demand management and intelligent transportation technology.

Policy J.2: Reduce existing demand before considering roadway expansion or parking expansion.

Policy J.3: Encourage the use of Transportation Demand Management (TDM) strategies to address vehicle congestion and parking demand by implementing strategies such as: telecommuting, travel mode changes, reducing trips taken, re-routing trips, and re-timing when trips are taken.

Policy J.4: Establish a list of recommended programs and strategies for implementing TDM in the City's multimodal plan to address vehicle congestion, vehicle miles traveled mitigation and parking demand.

Land Use Element

Goal A: Establish a compact, sustainable land use and development pattern with boundaries defined by the Santa Lucia Mountains and the Monterey Bay.

Policy A.1: Foster an integrated mix of employment, housing, educational, visitor-oriented, entertainment, recreational and open space uses throughout the city to support a complete community.

Policy A.2: Balance levels of employment and housing within the community to reduce commute times, improve air quality, and provide more opportunities for those who work in Monterey to live locally.

Policy A.4: Focus new development primarily in commercial districts and mixed use neighborhoods so as to support the vitality of existing businesses, optimize the use of utility infrastructure, and reduce vehicle trip frequency, length, and associated emissions.

Policy A.8: Reinforce the visual, pedestrian, and bicycle connection between City neighborhoods and the Bay so that residents have exceptional non-automobile access to the Bay.

Goal B: Create and nurture a series of distinctive, walkable, mixed use neighborhoods in Monterey.

Policy B.1: Develop and implement specific plans and zoning to guide development in the mixed use neighborhoods, recognizing that each mixed use neighborhood is unique and requires tailored development and design standards, multi-modal improvements, and infrastructure financing strategies.

Policy B.5: Create an attractive, safe environment for bicycles and pedestrians that promotes "micro-mobility" and connectivity to and within the mixed use neighborhoods.

Policy B.6: Encourage site designs that create an active street frontage and screen parking from the frontages of major thoroughfares.

Housing Element

Housing Goal #1. Increase housing supply and facilitate production of at least 3,654 new homes by 2031.

Policy 1.2 Promote infill development in adopted Specific Plan areas where high density residential development can be accommodated in proximity to employment, shopping, transit, recreation, and other services.

Program 1-B **Multi-Family Residential Overlay Amendments.**

Program 1-C **Specific Plan Updates.**

Program 1-H **Fort Ord/Ryan Ranch Specific Plan.**

Program 1-I **Highway 68 Area Plan Update.**

Program 1-J **SB 9 Housing Ordinance.**

Program 1-K **Employer Sponsored Housing.**

Housing Goal #2. Remove or reduce barriers to housing production in Monterey and address the regulatory, process, and market factors that limit and adversely affect affordability. .

Policy 2.3 Develop zoning standards to encourage smaller multi-unit housing types including fourplexes, townhouses, and rowhouses.

Policy 2.4 Reduce constraints to the development of Accessory Dwelling Units.

Program 2-E **Revise Parking Requirements.**

IMPACTS

Impact 3.13-1 Implementation of the Proposed Plan would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities *(Less than Significant)*

A significant impact would occur if implementation of the Proposed Plan would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle pedestrian facilities. New residential and non-residential development under the Proposed Plan would typically be expected to result in additional vehicular trips and the increased use of streets for all modes of transportation. Applicable local regulations and plans related to transportation include the City's Multimodal Mobility Plan (Move Monterey) and Monterey-Salinas Transit (MST)'s 2022-25 Goals, Objectives and Action Plan.

Move Monterey

Adopted in 2021, Move Monterey addresses the City's needs to create a safe and effective transportation network for all modes of transportation, including transit, bicycling, and walking. Move Monterey includes strategies that seek to integrate land use and transportation in order to facilitate walking, bicycling, and transit use; enhance safety for bicyclists and pedestrians; and incorporate new technology and standards for bicycle and pedestrian circulation. Proposed Plan policies and programs broadly support implementation of these strategies, as shown in Table 3.13-4. Specifically, the proposed Housing Element Program 1-C calls for the updating specific plans with the intention of integrating new high-density housing with good access to transit, among other

services. Additionally, the Land Use Element Policy B.1 seeks to develop and implement specific plans and zoning to guide development in neighborhoods and incorporate tailored development and design standards and multi-modal improvements to the specific neighborhood. Lastly, the Circulation Element emphasizes transit-oriented designs in mixed-use neighborhoods (Policy a.3), while accomplishing the goal of a transportation network that is complemented by land uses that are easily accessible by walking, bicycling, or utilizing transit (Goal A).

The proposed Circulation Element sets out a list of guidelines and considerations for Complete Streets in the City's multimodal plan, which would maximize safety through design (Policy b.6), aligning with Move Monterey's strategy to examine projects impact on safety for pedestrians and bicyclists. Further, the proposed Circulation Element also requires development projects to provide on-site facilities such a bicycle parking and showers, to dedicate land to expand existing facilities or provide new facilities such as sidewalks/multi-use paths and/or bicycle lanes, and to ensure projects are designed to be efficiently served by bike routes and pedestrian connections (Policy c.9). This policy supports Move Monterey's strategy to look for opportunities to incorporate safety and access improvements for pedestrian and bicyclists in development projects.

As a result, the Proposed Plan would not conflict with a program, plan, ordinance, or policy addressing the circulation system, particularly bicycle and pedestrian facilities, and the impact would be less than significant.

Table 3.13-2: Consistency with Move Monterey Strategies for New Development

Strategies for New Development	*Incorporation into Proposed Plan Policies*
Integrate land use and circulation elements in Specific Plans to support walkable, bikeable, transit-oriented neighborhoods (high-density, mixed-use, active transportation).	**Circulation Element (CE) Goal A:** A transportation network that is complemented by land uses that are easily accessible by walking, bicycling, or utilizing transit. **CE Policy A.3** Encourage transit/pedestrian oriented (TOD/POD) designs in mixed-use neighborhoods. **CE Goal C** A safe, reliable, connected and integrated bicycle transportation network that encourages bicycling as a primary mode of transportation for residents, employees and visitors **CE Goal D** A safe, accessible, connected and integrated pedestrian transportation network that encourages walking as a primary mode of transportation for residents, employees and visitors. **CE Goal E** An integrated multi-modal transportation network that supports and encourages transit use, including Bus, Bus Rapid Transit (BRT), and Rail. **Land Use Element B.1** Develop and implement specific plans and zoning to guide development in the mixed-use neighborhoods, recognizing that each mixed use neighborhood is unique and requires tailored development and design standards, multi-modal improvements, and infrastructure financing strategies.

Table 3.13-2: Consistency with Move Monterey Strategies for New Development

Strategies for New Development	*Incorporation into Proposed Plan Policies*
	Housing Element (HE) Policy 1.2 Promote infill development in adopted Specific Plan areas where high density residential development can be accommodated in proximity to employment, shopping, transit, recreation, and other services. *The full text of proposed Housing Element programs is included in Appendix B for reference.* **HE Program 1-C Specific Plan Updates** **HE Program 1-H Fort Ord/Ryan Ranch Specific Plan** **HE Program 1-I Highway 68 Area Plan Update**
Include Vision Zero goal in near term and long-term planning documents.	**Circulation Element Goal H.** A transportation network supported by projects and programs that work towards zero collisions involving serious or fatal injuries. **CE Policy h.1:** Prioritize safety over congestion. **CE Policy h.2:** Prioritize transportation improvements that enhance pedestrian and bicycle safety. **CE Policy h.3:** Prioritize transportation projects at locations which have been identified as high collision intersections/segments. **CE Policy h.4:** Minimize and/or eliminate mid-block median openings and direct driveway access for individual properties along other principal and minor arterial streets. **CE Policy h.5:** Monitor collision rates and trends to identify transportation safety improvements. **CE Policy h.6:** Incorporate the five E's of safety (Education, Engineering, Enforcement, Emergency Response, and Emerging Technology) when addressing safety concerns. **CE Policy h.7**: Identify grant funding opportunities for engineering projects, emergency response, enforcement and safety programs. **CE Policy h.8**: Collaborate with Monterey Peninsula Unified School District (MPUSD), Monterey Fire Department (MFD) and Monterey Police Department (MPD) on education and enforcement programs, including promoting "Safe Routes to School" Programs.
Examine development projects to determine impact on safety and access for pedestrians and bicyclists.	**Circulation Element Goal B.** A safe and well-maintained roadway system that efficiently moves people and goods across all modes of transportation. **CE Policy b.6:** Establish a list of guidelines and considerations for Complete Streets in the City's multimodal plan, maximizing safety through design. **CE Goal D.** A safe, accessible, connected and integrated pedestrian transportation network that encourages walking as a primary mode of transportation for residents, employees and visitors.

Table 3.13-2: Consistency with Move Monterey Strategies for New Development

Strategies for New Development	*Incorporation into Proposed Plan Policies*
	CE Policy d.2: Design intersections to improve pedestrian safety and mobility. **Circulation Element Goal H.** A transportation network supported by projects and programs that work towards zero collisions involving serious or fatal injuries. **CE Policy h.1:** Prioritize safety over congestion. **CE Policy h.2:** Prioritize transportation improvements that enhance pedestrian and bicycle safety. **CE Policy h.6:** Incorporate the five E's of safety (Education, Engineering, Enforcement, Emergency Response, and Emerging Technology) when addressing safety concerns.
Look for opportunities to incorporate safety and access improvements for pedestrian and bicyclists in development projects.	**Circulation Element Goal B.** A safe and well-maintained roadway system that efficiently moves people and goods across all modes of transportation. **CE Policy b.6:** Establish a list of guidelines and considerations for Complete Streets in the City's multimodal plan, maximizing safety through design. **Circulation Element Goal C.** A safe, reliable, connected and integrated bicycle transportation network that encourages bicycling as a primary mode of transportation for residents, employees and visitors. **CE Policy c.9** Require development projects to provide on-site facilities such as bicycle parking, storage and showers, provide connections to existing and future planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks/multi-use paths and/or bicycle lanes, or contribute to the cost of improvements. Ensure that projects are designed and/or retrofitted to be efficiently served by buses, bike routes and pedestrian connections. **CE Goal D.** A safe, accessible, connected and integrated pedestrian transportation network that encourages walking as a primary mode of transportation for residents, employees and visitors. **CE Policy d.2:** Design intersections to improve pedestrian safety and mobility. **CE Policy d.7:** Require that development projects provide internal pedestrian connections and linkages to adjacent public streets, neighborhoods and community facilities. Ensure that projects are designed and/or retrofitted to be efficiently served by buses, bike routes and pedestrians connections. **Circulation Element Goal H.** A transportation network supported by projects and programs that work towards zero collisions involving serious or fatal injuries. **CE Policy h.1:** Prioritize safety over congestion.

Table 3.13-2: Consistency with Move Monterey Strategies for New Development

Strategies for New Development	*Incorporation into Proposed Plan Policies*
	CE Policy h.2: Prioritize transportation improvements that enhance pedestrian and bicycle safety. **CE Policy h.6:** Incorporate the five E's of safety (Education, Engineering, Enforcement, Emergency Response, and Emerging Technology) when addressing safety concerns.
Update plans and guidelines for bike and pedestrian circulation as new technology and standards become available.	**Circulation Element Goal C** A safe, reliable, connected and integrated bicycle transportation network that encourages bicycling as a primary mode of transportation for residents, employees and visitors. **CE Policy c.6:** Establish and maintain a current list of bicycle improvement projects in the City's multimodal plan to create a connected bicycle transportation network. **CE Goal D** A safe, accessible, connected and integrated pedestrian transportation network that encourages walking as a primary mode of transportation for residents, employees and visitors. **CE Policy d.6:** Continue to identify and prioritize projects which would improve accessibility for all pedestrians, such as ADA ramps, audible pedestrian signals, sidewalk widenings or any other transportation infrastructure improvement that could improve accessibility.

Source: Move Monterey, City of Monterey, 2021; Dyett & Bhatia, 2024.

Monterey-Salinas Transit 2022-25 Goals, Objectives and Action Plan

MST's 2022-25 Action Plan is organized around seven key goals that focus on fiscal stability; quality transit and mobility service; effective management practices; environmental sustainability, public education, organizational values, and industry leadership. The Proposed Plan would not conflict with these goals and in particular would support MST's 2022-25 Action Plan Goal #2, which involves developing and implementing services, infrastructure, and technologies to meet and exceed community expectations; exploring and implementing new technologies and practices; and attracting and retaining customers. The Proposed Plan incorporates strategies to promote the development of mixed use villages and transit-oriented development within the City limit, including proposed Land Use Element policies A.1, A.2, and A.4, as well as policies involving coordination with MST to support transit use, including Circulation Element policies E.3, E.5, E. 6, and E.7. Therefore, overall implementation of the Proposed Plan would support the delivery of frequent, reliable transit and help attract new and retain existing MST riders. Implementation of the Proposed Plan housing sites inventory would increase the number and proportion of housing units in the more walkable areas of Monterey within a half mile of Downtown, Lighthouse and Del Monte opportunity areas, that serve as transit corridors within the city. As a result, future development consistent with the Proposed Plan would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Therefore, implementation of the Proposed Plan would result in a less than significant impact related to conflicts with programs, plans, ordinances, or policies addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities.

Mitigation Measures

None required.

Impact 3.13-2 Implementation of the Proposed Plan would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). *(Significant and Unavoidable)*

Table 3.13-5 summarizes the results of the VMT evaluation across the analysis scenarios in relation to the City of Monterey's adopted VMT thresholds. As shown, while residential land uses would not exceed the established threshold of significance for either the No Project or the Proposed Plan in 2031, employment-based VMT would exceed the established threshold for both scenarios. However, these modeling results do not fully account for the beneficial effects of Proposed Plan policies that would reduce VMT associated with new development under the Proposed Plan.

Table 3.13-3: Planning Area VMT Metrics

Jurisdiction	*No Project*		*Proposed Plan*	
	VMT/Capita	*VMT/Employee*	*VMT/Capita*	*VMT/Employee*
Baseline	16.8	22.2	16.8	22.2
Threshold (15 percent below baseline)	14.3	18.9	14.3	18.9
City of Monterey (2031)	12.9	24.4	11.6	24.5
Over Threshold?	No	**Yes**	No	**Yes**

Notes:
1. items in **bold** indicate exceedance of thresholds of significance.

Source: Kimley-Horn, Appendix H Transportation VMT and Evacuation Assessment, 2023.

The California Air Pollution Control Officers Association (CAPCOA) has prepared a *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (December 2021)* intended to quantify the effect of GHG and VMT reduction practices for local governments, communities, and private developers. Numerous Proposed Plan policies reflect VMT reduction practices recommended by CAPCOA, and therefore implementation of the Proposed Plan would put into action multiple recommended CAPCOA strategies, resulting in additional reduction in VMT from new development under the Proposed Plan. Relevant CAPCOA strategies and anticipated effectiveness are shown in Table 3.13-6 and the resulting VMT after accounting for the effectiveness of Proposed Plan policies is discussed below.

The VMT mitigation potential of CAPCOA strategies is typically assessed at the project level, therefore the anticipated effectiveness levels shown on Table 3.13-6 cannot be applied to the total residential or employment-based VMT projected for the Proposed Plan. However, as indicated on Table 3.13-6, implementation of proposed Housing Element Programs 1-C, which involves offering municipal shared parking agreements to projects that propose a minimum number of new housing units in proximity to a City-owned parking lot or structure, and 2-E, which involves reduce the minimum requirements for projects located within one half mile of public transit, would further reduce the already less than significant residential

Table 3.13-4: CAPCOA Mitigation Measures to Reduce VMT

Mitigation Measure	*Type of Actions*	*Proposed Plan Policies/Programs*[1]	*VMT Mitigation Potential*
Residential Measures			
Parking demand management strategies	Limit residential parking supply	HE Programs 1-C and 2-E	≤ 2.3%
Employment Measures			
Employer-based TDM Strategies	Provide end-of-trip bicycle facilities	CE Policy A.10, C.9,	≤ 0.9%
Non-motorized transportation incentives	Provide pedestrian network improvement	CE Policies B.4, D.3, D.4, D.6,	≤ 0.25%
	Construct or improve bike facility	CE Policies C.2, C.3, C.5, C.6, C.8	≤ 0.1%
	Construct or improve bike boulevard	CE Policies C.2, C.3, C.5, C.6, C.8	≤ 0.02%
Transit Service Enhancements	Implement transit-supportive roadway treatments	CE Policy B.1	≤ 0.17%

Notes:
1. HE = Housing Element; LU = Land Use Element; CE = Circulation Element

Source: CAPCOA, 2021; Dyett and Bhatia, 2023.

VMT the Proposed Plan. Additionally, the following proposed Circulation Element policies would help to reduce employment-based VMT when implemented by non-residential developments subsequent to the Proposed Plan: Policies a.10 and c.9 would require proposed projects to provide bicycle facilities, bicycle parking, storage and showers, or contribute to the cost of improvements, thereby providing end-of-trip bicycle facilities; Policy d.3, under which the City would increase pedestrian connectivity between neighborhoods and major city and regional destinations, and Policies d.4 and d.5 under which the City would prioritize ADA ramps, audible pedestrian signals, sidewalk widenings, and other infrastructure, would provide pedestrian network improvements; Policies c.2, c.3, c.5, c.6 and c.8, under which the City would plan and construct new bicycle facilities and improve bicycle connectivity; Policies c.3, c.5, and c.6 would facilitate construction of new or improvement of existing bicycle boulevards; and Policy b.1, under which the City would create and maintain a system of complete streets, would result in transit-supportive roadway treatments. However, given that VMT/employee in 2031 under the Proposed Plan would exceed the threshold by nearly 30 percent, even after accounting for the VMT mitigation potential of Proposed Plan policies, work VMT per employee would still exceed the established threshold in 2031. Therefore, Mitigation Measure TRANS-1, under which the City would implement a Commute Trip Reduction Program applicable to businesses that employ 50 or more people in Monterey, is required.

Although the implementation of Mitigation Measure TRANS-1 can be expected to reduce work VMT per employee once implemented, the precise mix of incentives offered by employers cannot be known at this time. Therefore, this EIR conservatively assumes that the VMT reduction due to

implementation of these strategies would not be adequate to reduce the impact to a less than significant level. Accordingly, even after implementation of all feasible mitigation, this impact would remain significant and unavoidable.

Mitigation Measures

MM-TRANS-1: Implement Commute Trip Reduction Program. Within one year of adoption of the Proposed Plan, the City shall adopt an Employee Commute Trip Reduction (CTR) Program that establishes requirements for businesses employing 50 or more people in the City of Monterey to offer incentives and resources aimed at reducing the number and length of drive-alone commutes to worksite(s). The CTR Program shall identify a range/menu of actions that employers may use to incentivize alternatives to single occupant vehicle commute trips, such as:

- Offering free or subsidized transit passes;
- Providing secure bike storage and lockers to encourage bicycle commuting;
- Allowing employees to work from home some or all of the time;
- Offering vouchers, cash, or paid time-off incentives to employees who carpool, bike or walk to work;
- Providing priority parking for carpools and vanpools.

Significance After Mitigation: Significant and unavoidable.

Impact 3.13-3 Implementation of the Proposed Plan would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment) *(Less than Significant)*

The Circulation Element of the Proposed Plan includes goals b, c, and d to improve the overall safety of the transportation network as well as the safety for non-automobile travel modes. Implementation of the Proposed Plan would involve construction of new developments and new transportation facilities, as well as modifications to existing transportation facilities. Since the Proposed Plan is a program-level plan, the design elements of individual future developments and new transportation facilities are not known. However, all future public and private improvement projects and transportation facilities would be subject to additional review and approval to ensure safety. Chapter 33 of the City Code outlines street and arterial regulations for subdivisions. Intersections shall be designed to provide the greatest safety for both pedestrians and motorists. Street patterns shall be designed to best serve the traffic needs and land uses of the area and the community, both in function and arrangement. The street system shall be designed to retain and protect existing vegetation wherever possible; and shall be designed in harmony with the topography and natural landform. Further, Circulation Element Proposed Policy b.6 requires implementation of Complete Streets principles as well as maximization of safety through design.

Through the design and engineering review process, City staff and other potential jurisdiction staff will evaluate development proposals as well as modifications to the existing transportation facilities and new proposed facilities to ensure public health and safety by ensuring adequate and safe sidewalks or crosswalks, dedicated and protected bicycle facilities, realigning sharp curves, prohibiting certain movements, signalizing intersections, and improving sight distance, among

other measures. All new streets and redesign of existing streets will be completed according to applicable federal, State, and local design standards, such as the California Manual on Uniform Traffic Control Devices and the California Highway Design Manual. Furthermore, most new transportation facilities and redesign of existing facilities in the Proposed Plan are aimed at improving conditions for various modes. Proposed Circulation Element policies d.1, d.2, d.3, and d.7 would enhance the pedestrian network, proposed policies c.2 and c.4 would increase bicycle connectivity within the Planning Area and prioritize connections to Monterey Peninsula Recreational Trail, and proposed Policy e.8 requires development projects to enhance access to transit. Considering that the Proposed Plan would not substantially increase hazards due to design features and that it would be compatible with existing uses in the area, impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.13-4 Implementation of the Proposed Plan would not result in inadequate emergency access. *(Less than Significant)*

A significant impact would occur if implementation of the Proposed Plan would result in inadequate emergency access. Implementation of the Proposed Plan would likely involve the construction of new streets and roadways within the Fort Ord/Ryan Ranch opportunity area and the 50-acre MPUSD site. Although the new streets or the modifications to the existing streets have not yet been planned, design would be required to comply with adopted roadway design standards and applicable provisions of the City Code, including regulations related to accommodating emergency vehicles. All through streets would provide adequate space for other vehicles to pull over and allow emergency vehicles to pass without blocking the streets since California law requires drivers to yield the right-of-way to emergency vehicles and remain stopped until the emergency vehicle passes. Proposed Plan policies minimize cul-de-sacs and allow existing and future developments to be accessed from at least two routes. Therefore, if one route is inaccessible, emergency vehicles could use another route to access a building. Thus, emergency vehicles would continue to use the existing streets as well as new streets to access all areas within the Planning Area.

In addition, the Proposed Plan is a program-level plan that does not directly address project-level components that will be required to provide adequate emergency access. City staff, including emergency responders, review all development applications to ensure that applicable requirements are met, including provisions for adequate access for emergency responders and response vehicles, consistent with the Fire Code.

Considering the Proposed Plan's accommodation of emergency vehicles in existing and future streets, and the established procedures for reviewing project-level emergency access needs, impacts would be less than significant.

Mitigation Measures

None required.

3.14 Utilities and Service Systems

This section assesses potential environmental impacts from future development under the Proposed Plan as related to public utilities, including water, wastewater, and stormwater systems, and solid waste services. This section describes existing water, wastewater, stormwater, and solid waste infrastructure and services in the Planning Area, as well as relevant federal, State, and local regulations and programs.

Four responses to the Notice of Preparation (NOP) were received regarding topics addressed in this section including comments related to the availability of water to serve future need, future plans for a desalination project, and capacity for water likely to be produced with buildout of the Proposed Plan. These comments are addressed in the Impact Analysis below.

Environmental Setting

PHYSICAL SETTING

Water System

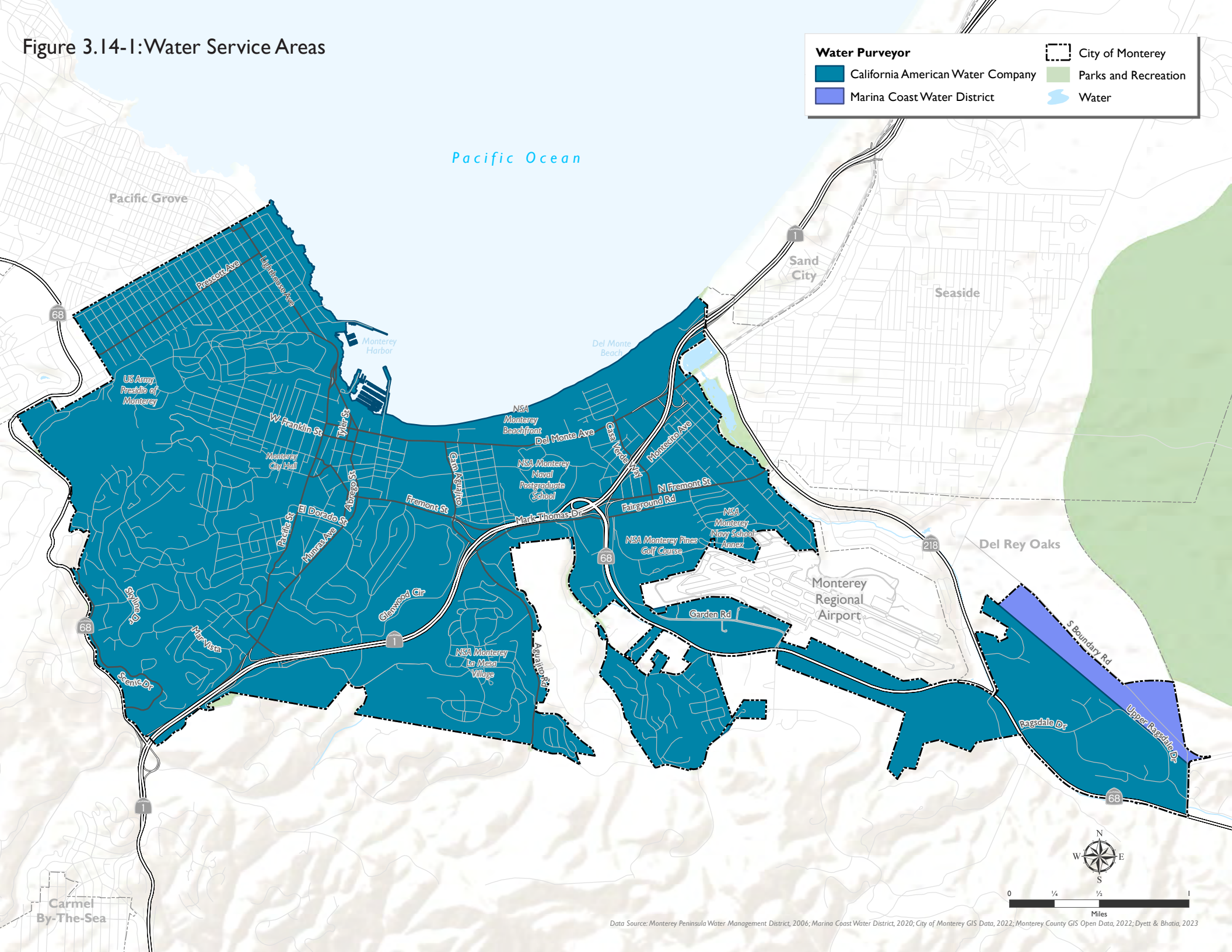
Most of the Planning Area is serviced by the California-American Water Company (Cal-Am); however, about 126.8 acres of land at Fort Ord is within the Marina Coast Water District (MCWD) future study area as shown on Figure 3.14-1.

California American Water Company

Service Area

Potable water for most of the City of Monterey is supplied by Cal-Am, a privately-owned utility that is regulated by the California Public Utilities Commission (CPUC). Cal-Am's Central Division services the Monterey County District, which includes the Monterey Main System and six satellite systems. The Monterey Main system is composed of the Monterey Main System, and the Ryan Ranch and Bishop Systems. Cal Am is working to complete an interconnection between the Monterey Main System and the Hidden Hills System. The Monterey County District supplies water service to most of the Monterey Peninsula, including the cities of Carmel-by-the-Sea, Del Rey Oaks, Monterey, Pacific Grove, Sand City, Seaside, and the unincorporated areas of Carmel Highlands, Carmel

Figure 3.14-1: Water Service Areas



Valley, the Presidio of Monterey, and Pebble Beach.[1] The Monterey Main system encompasses 33,950 acres and serves an estimated 91,717 people, according to the DWR (Department of Water Resources) population tool. Potable water use is regulated by the Monterey Peninsula Water Management District (MPWMD).[2]

Current and Planned Sources of Supply

The current sources of supply for the Monterey Main System include groundwater, recycled water, desalinated water, and diversions of flow from the Carmel River under Permit 21330 issued by the State Water Resources Control Board (SWRCB). These various sources are described in detail below. The Monterey service area does not currently utilize surface water supplies. Additional future sources of supply included plans to purchase additional recycled water anticipated to become available as a result of the Pure Water Monterey Expansion Project and additional supply from the planned Monterey Peninsula Water Supply Project (MPWSP) Ocean Desalination Plant, also described below. Groundwater from the Carmel River Aquifer and the Seaside Groundwater Basin provided approximately 64 percent of the system's water supply in the baseline window of 2018 through 2022. As the Pure Water Monterey Expansion and Ocean Desalination Plant projects are completed, it is anticipated that the share of water sourced from groundwater will decrease to 25 percent.

CARMEL RIVER AQUIFER

The Carmel Valley Aquifer is located along the Carmel River, southeast of the Monterey Peninsula. The Monterey Main system's service area overlies the Carmel Valley Aquifer, which is comprised of the alluvial deposits that form the valley floor underlying the Carmel River. The aquifer is identified as a high-priority basin and withdrawals are regulated through the SWRCB. The Monterey Main System pumps from both the Upper and Lower Carmel River Aquifer. State Board Order 95-10 has placed seasonal limits on the allowable production from the wells in the Upper Carmel Valley Aquifer. The wells are operated in the winter months (November through April) and when the Carmel River flows exceed 40 cubic feet per second (cfs). If the river flow at the Don Juan Bridge is less than 20 cfs for more than 5 consecutive days, a "low flow period" is triggered and the upper valley wells cannot be used. The wells in the Upper Carmel River Aquifer are of good quality and discharge directly into the distribution system with disinfection at the wellhead. The wells in the Lower Carmel River Aquifer do not have seasonal production limits. The wells pump into a raw water transmission main, which transfers groundwater to the Begonia Iron Removal Plant (BIRP) for treatment and removal of iron and manganese before being pumped into the distribution system. Cal-Am extractions from the Carmel Valley Aquifer have decreased steadily for the past five years. Future supply from this source is limited to 3,376 acre-feet per year (AFY) as authorized by the SWRCB.

[1] California-American Water Company, 2023. Water Supply Assessment for the City of Monterey. Accessed: January 9, 2024.

[2] Monterey Peninsula Water Management District, 2023. About MPWMD. Available: https://www.mpwmd.net/who-we-are/about-mpwmd/. Accessed: September 13, 2023.

SEASIDE GROUNDWATER BASIN

The Seaside Groundwater Basin (SGWB) overlies and is a subbasin to the Salinas Groundwater Basin, made up of eight subbasins that span Monterey County and northern San Luis Obispo County. The Monterey and Laguna Seca Systems are located within and utilize water from the Seaside Area Subbasin of the Salinas Valley Groundwater Basin. The Seaside Area Subbasin is bounded by the 180/400 Foot Aquifer subbasin to the north, the Corral de Tierra sub-basin to the south and east, and by the Pacific Ocean to the west. The total surface area of the aquifer covers approximately 19 square miles. The southern boundary of the Seaside Groundwater Basin follows the Chupines fault, a relatively impermeable formation uplifted to near sea level. The western boundary of the basin extends to the shoreline. The eastern boundary of the basin is defined by the flow divide in the Paso Robles aquifer, which approximately coincides with surface drainage between the Canyon del Rey and El Toro Creek watersheds. Finally, the northern boundary of the basin also follows a groundwater flow divide from the Salinas Valley groundwater basin.

Historically, seawater intrusion had not been observed in existing monitoring and production wells in the Seaside Basin. In 2020 increased chloride concentrations were reported in two monitoring wells for the first time, which may be a precursor to seawater intrusion. The 2019 Updated Water Quality, Seawater Intrusion Analysis Report, and Basin Management Action Plan found that despite recent pumping at levels less than the decision-established natural safe yield of 3,000 AFY, water levels in some portions of the Basin are continuing to drop. Water levels and chloride concentrations are expected to improve once a new supply source is secured for the Peninsula and CAW can reduce its pumping from the Seaside Groundwater Basin. Similar to the Carmel River, the Seaside Basin is vulnerable to climate impacts, notably after years of over pumping. The main climate vulnerability is continued seawater intrusion in the basin as seawater levels rise, plus increased agricultural water use and more severe and frequent droughts that may result in over pumping and further stress the basin. Cal-Am is expected to significantly reduce reliance on both the Carmel River and Seaside Basin in the future as additional sources come online.

The Cal-Am Monterey Main System has a total entitled right of 1,474 AFY from the Seaside Groundwater Basin; however, Cal-AM has an agreement in place not to pump 700 AFY of this right for 25-years once a new supply source is operational. Because a new supply source is expected to be operational by 2030, Cal-Am's allocation from the Seaside Basin will be reduced to 774 AFY (1,474 AFY minus 700 AFY) from 2030 to 2055.

AQUIFER STORAGE AND RECOVERY (ASR)

The Aquifer Storage and Recovery (ASR) program allows for the storage of excess Carmel River flows in the Seaside Groundwater Basin Coastal Subbasin during the months of December through May for later extraction during dryer summer months, historically between July and November. The ASR program is a joint program between Cal-Am and MPWMD. Diversions for the ASR system are contingent on maintaining minimum daily instream Carmel River flows and precipitation and streamflow can vary substantially from year to year. Accordingly, the actual supply from the ASR project can vary substantially. In wet years with high streamflow, Cal-Am is able to inject a significant volume of water for ASR. Historically, the yield from ASR has varied significantly based on the hydrology and the available storage. The average annual volume stored since 2006 is 84 AFY with multiple years of no stored water.

In most normal years the injection volume from seasonal Carmel River flows beyond Cal-Am's entitled rights is only slightly greater than the extraction volume, and there is little to no excess supply available to build ASR storage. Cal-Am is projected to build ASR storage only in wet years. In dry years, if storage is available, Cal-Am could draw down the ASR storage when the excess Carmel River flows are unavailable, but it is not anticipated to last through a multi-year drought based on the previous drought. Additional ASR storage would allow the ASR supply to last longer in a multi-year drought, though increased demands and climate impacts, including shifting rainfall patterns and hotter summers, will increase the difficulty of building ASR storage. The average annual ASR extraction volume over the historic period of operations was 559 AFY. The projected ASR supply for future years is estimated to be 470 AFY with 90 percent reliability.

TRANSFER OPPORTUNITIES

Cal-Am has completed interconnections between the Monterey Main System and the Ryan Ranch and Bishop System, which are now both supplied from the Monterey Main System. Cal-Am is also working to complete an interconnection between the Monterey Main System and the Hidden Hills System. The interconnections provide greater supply reliability for all systems.

RECYCLED WATER

Monterey One Water (M1W), previously Monterey Regional Water Pollution Control Agency, operates a treatment plant that produces recycled water. The plant treats all collected wastewater through secondary treatment. Some secondary treated water is treated to a higher degree, including Title 22 tertiary disinfection level for raw food crop irrigation or purified using advanced treatment. The tertiary treated water is used to irrigate edible food crops. MPWMD and M1W operate the Pure Water Monterey (PWM) Project under which Cal-Am is contracted to receive 3,500 AFY of advanced-treated recycled water for the Seaside Groundwater Basin.

PURE WATER MONTEREY

Pure Water Monterey (PWM) is an advanced water recycling project, jointly developed by two public agencies -- MPWMD and Monterey One Water. The PWM Project provides purified recycled water for injection into the Seaside Groundwater Basin and ultimate potable use in Monterey Main system. The PWM Project also provides purified recycled water for landscape irrigation for the Marina Coast Water District and recycled water to augment the existing Castroville Seawater Intrusion Project's agricultural irrigation supply.

SAND CITY DESALINATION PLANT

Construction of the Sand City Water Supply Project was completed in 2009. Cal-Am began operating and distributing water from the plant in April 2010. The Sand City Desalination Plant includes a reverse osmosis desalination plant, water storage tanks, and a connection to Cal-Am's Monterey Main system. The desalination facility is designed to produce 300 AFY, but it typically produces closer to 190 AFY. Cal-Am has an allocation of 94 AFY from this facility, and the rest is reserved for future development. Cal-Am may only use more than 94 AFY until the future developments use the remaining supply. Because any supply beyond 94 AFY is reserved for the City, it cannot be relied upon as a future water supply for Cal-Am.

PURE WATER MONTEREY EXPANSION

The Pure Water Monterey (PWM) project provides purified recycled water for injection into the Seaside Groundwater Basin and extraction for potable use in Monterey Main. Cal-Am has a water purchase agreement to secure water from the project, which could deliver 3,500 AFY of advanced-treated recycled water for injection to the Seaside Groundwater Basin. The advanced treated recycled water mixes with the existing groundwater and is pumped as a potable supply source. PWM is a key component of Cal-Am's plan to reduce diversions from the Carmel River and will serve as a key component of the future water supply for the Monterey Peninsula. Phase 1 of PWM began operating at the end of 2019. Phase 2 of the project is envisioned to deliver an additional 2,250 AFY of water to the Seaside Basin that would be available to Cal-Am. However, the PWM Expansion has not been proven to provide the full 2,250 AFY, particularly during dry years. A 2022 analysis determined that the PWM Expansion can be reasonably expected to provide 2,001 to 2,234 AFY during normal conditions and 0 to 1,100 AFY during drought conditions.

MONTEREY PENINSULA WATER SUPPLY PROJECT OCEAN DESALINATION

The proposed Ocean Desalination Plant would produce up to 6,252 AFY of potable water. The first phase of the plant approved by the California Coastal Commission in November 2022 would have a capacity of 4.8 million gallons per day (mgd) and would produce approximately 5,372 AFY. A future second phase would raise the capacity to 6.4 mgd or approximately 6,252 AFY. The desalination plant would be constructed near the Monterey One Water Regional Treatment Plant (M1W RTP) and would treat seawater that is filtered through the ocean floor, then collected through slant wells and piped to the desalination plant. The slant well approach would draw water from under the sea floor past the average high tide line and would avoid the impacts to marine life posed by open ocean intakes. At the plant, seawater would be treated using various treatment technologies including reverse osmosis. Brine would be blended with other treated effluent and discharged to the ocean via the existing outfall at M1W RTP. Cal-Am projects that the first phase of the Ocean Desalination Plant will be operational by 2030, and that the second phase will be operational by 2035 in order to serve additional projected demand.

Conservation

Monterey Peninsula Water Management District offers a wide variety of rebates, incentives, and technical assistance to its residential, commercial, industrial, institutional, and large landscape customers to encourage water conservation. Some of the current water conservation programs include rebates for water saving fixtures and appliances for homes or businesses, free water-saving devices, commercial and multi-family housing water efficiency requirements, and water use credit application.

Marina Coast Water District

The Marina Coast Water District (MCWD) is located in Monterey County, on the coast of Monterey Bay at the northwest end of the Salinas Valley. The District's jurisdictional service area is 10.3 square miles, encompassing the City of Marina and the occupied portions of the former Fort Ord. MCWD has a 2.2-square-mile sphere of influence immediately north of its service area. The remaining redevelopment parcels within the former Fort Ord are considered a future study area. MCWD has two service areas, Central Marina which is the portion of the City of Marina outside

the former Fort Ord, and the Ord Community within the former Army base. The Ord Community includes portions of the Cities of Marina, Seaside, Del Rey Oaks and Monterey, as well as unincorporated portions of Monterey County. California State University and the University of California each have lands and facilities within the Ord Community. MCWD served only the City of Marina until 1994, when Fort Ord closed and the District was selected to take over the water and wastewater systems within the base. The population served by MCWD is projected to more than double once the former Fort Ord is fully redeveloped.[3]

Current and Planned Sources

MCWD provides groundwater from the Monterey Subbasin of the Salinas Valley Groundwater Basin (SVGB), which covers approximately 620 square miles within Monterey County, and consists of several interconnected subbasins as listed in Table 3.14-1. The southern portion of the Ord Community overlies the Seaside Subbasin, which is an adjudicated aquifer, but none of MCWD's wells draw water from that source. MCWD and the former Fort Ord were separately annexed into Monterey County Zones 2/2A in 1996 and 1993, respectively. Under the annexation agreements, MCWD agreed to limit its groundwater use to 3,020 AFY, and Fort Ord agreed to a limit of 6,600 AFY. Those limits are considered to be reliable yields. Pursuant to the Sustainable Groundwater Management Act of 2014, several groundwater sustainability agencies oversee the management of groundwater within and adjacent to the MCWD service area. The 6,600 AFY within the Ord Community was allocated to the various land use jurisdictions by the Fort Ord Reuse Authority so that they may plan for and entitle redevelopment projects. With the closure of Ford Ord, an allotment of 65 AFY of water was conveyed to the City of Monterey.

Table 3.14-1 Subbasins within the Salinas Valley Groundwater Basin

Basin Number	*Designation*	*Area (acres)*
3-4	Salinas Valley Groundwater Basin	
3-004.01	180/400 Foot Aquifer	88,700
3-004.02	East Side Aquifer	57,500
3-004.04	Forebay Aquifer	94,100
3-004.05	Upper Valley Aquifer	98,200
3-004.06	Paso Robles (Monterey & SLO Counties)	577,400
3-004.08	Seaside	14,500
3-004.09	Langley	17,600
3-004.10	Monterey	30,900
3-004.11	Atascadero (SLO County)	19,700

Source: Marina Coast Water District 2020 Urban Water Management Plan, May 2021

MCWD is pursuing additional sources of water supply. As of 2020, MCWD was constructing a recycled water distribution network with plans to begin delivering recycled water for urban landscape irrigation in the coming years. The producer of the recycled water is Monterey One Water (M1W), the regional wastewater treatment agency. M1W has two water recycling systems.

[3] Marina Coast Water District, 2020 Urban Water Management Plan, May 2021.

First, the Salinas Valley Reclamation Plant, constructed in 1989, produces tertiary treated and disinfected recycled water used for crop irrigation within the Castroville Seawater Intrusion Project. Second, the Advanced Water Purification Plant produces advanced treated water for Indirect Potable Reuse as part of the Pure Water Monterey Project. The advanced treated water is injected into the Seaside Groundwater Basin within the Ord Community. MCWD has metered turnouts along the transmission main for supplying advanced treated water to recycled water customers. The MCWD Phase 1 project is 600 AFY, with a planned Phase 2 expansion to 1,427 AFY. Additionally, MCWD constructed a pilot seawater desalination plant in 1996 to explore the feasibility of using shallow wells along the beach as a source of brackish water. The plant had a capacity of 300 AFY, but is no longer in operation.

The MCWD 2020 Urban Water Management Plan (UWMP) determined that the District has sufficient groundwater plus contracted recycled water to meet the projected water demands of the next 20 years. Further, the 2020 UWMP identified potential additional sources of water supply, including desalination of brackish groundwater, which has been studied in detail and remains a viable option, and Indirect Potable Reuse of advanced treated water from the Pure Water Monterey project, for which a feasibility study was completed in 2022.

Conservation

The MCWD 2020 Urban Water Management Plan outlines continued efforts to conserve water resources and reduce demand. Even with development in recent years, average per-capita water demand is low and has been trending downward due to aggressive water conservation programs. Per capita demands will continue to be affected by conservation efforts, future land use changes, as well as increases in density of housing use. MCWD has an active water conservation program to maintain their low per capita rates of water use. Programs are available for indoor and outdoor retrofits and replacements, and staff water conservation specialists are available to provide assistance to customers.[4]

Wastewater

Monterey One Water

Monterey One Water (M1W) is the public wastewater treatment agency for northern Monterey County. M1W owns and operates a regional sanitary sewer system that serves a population of approximately 250,000 in 10 jurisdictions, which include the cities of Del Rey Oaks, Monterey, Pacific Grove, Salinas, Sand City, and Seaside; the Castroville Community Services District; Marina Coast Water District; Boronda County Sanitation District; and Monterey County.[5]

Wastewater in the City of Monterey is treated at the M1W Regional Treatment Plant (RTP) in the City of Marina, conveyed via an interceptor pipeline that is located along the coast through the cities of Seaside and Marina. The M1W RTP utilizes a multi-step process in which wastewater

[4] Marina Coast Water District, May 2021. 2020 Urban Water Management Plan. Available: https://www.mcwd.org/docs/2021_uwmp/DRAFT_MCWD_2020_UWMP_v20210520.pdf. Accessed: January 12, 2024

[5] Monterey One Water, 2023. Treatment. Available: https://www.montereyonewater.org/256/Treatment. Accessed: September 20, 2023.

entering the RTP from homes and businesses is taken through a series of processes to remove solids, pollutants, and harmful bacteria. The RTP has an average dry weather design capacity of 29.6 mgd and a peak wet weather design capacity of 75.6 mgd. It currently receives and treats on average approximately 18.5 mgd of wastewater, and therefore, has capacity to treat approximately 11 mgd of additional flows. Wastewater is treated to two different standards: 1) primary and secondary treatment for discharge through the M1W ocean outfall or use as influent for the tertiary treatment system; and 2) Title 22 California Code of Regulations standards (tertiary filtration and disinfection) for unrestricted crop irrigation use. With a grant from California Department of Resources Recycling and Recovery (CalRecycle), M1W is planning to significantly increase anaerobic digestion capacity at the RTP by reviving an out-of-service anaerobic digester and installing state-of-the-art Anaergia digestion tank mixing technology. The upgraded technology will enhance operational performance and energy efficiency, enabling food waste and biosolids co-digestion without affecting critical wastewater operations. The project commenced in Q2 2023 and is expected to be completed by Q3 2024.[6] Additionally, M1W operates the Pure Water Monterey Groundwater Replenishment Project, which provides highly treated wastewater for municipal use and for replenishment of the groundwater basin. This system is currently in the permitting process for further expansion.

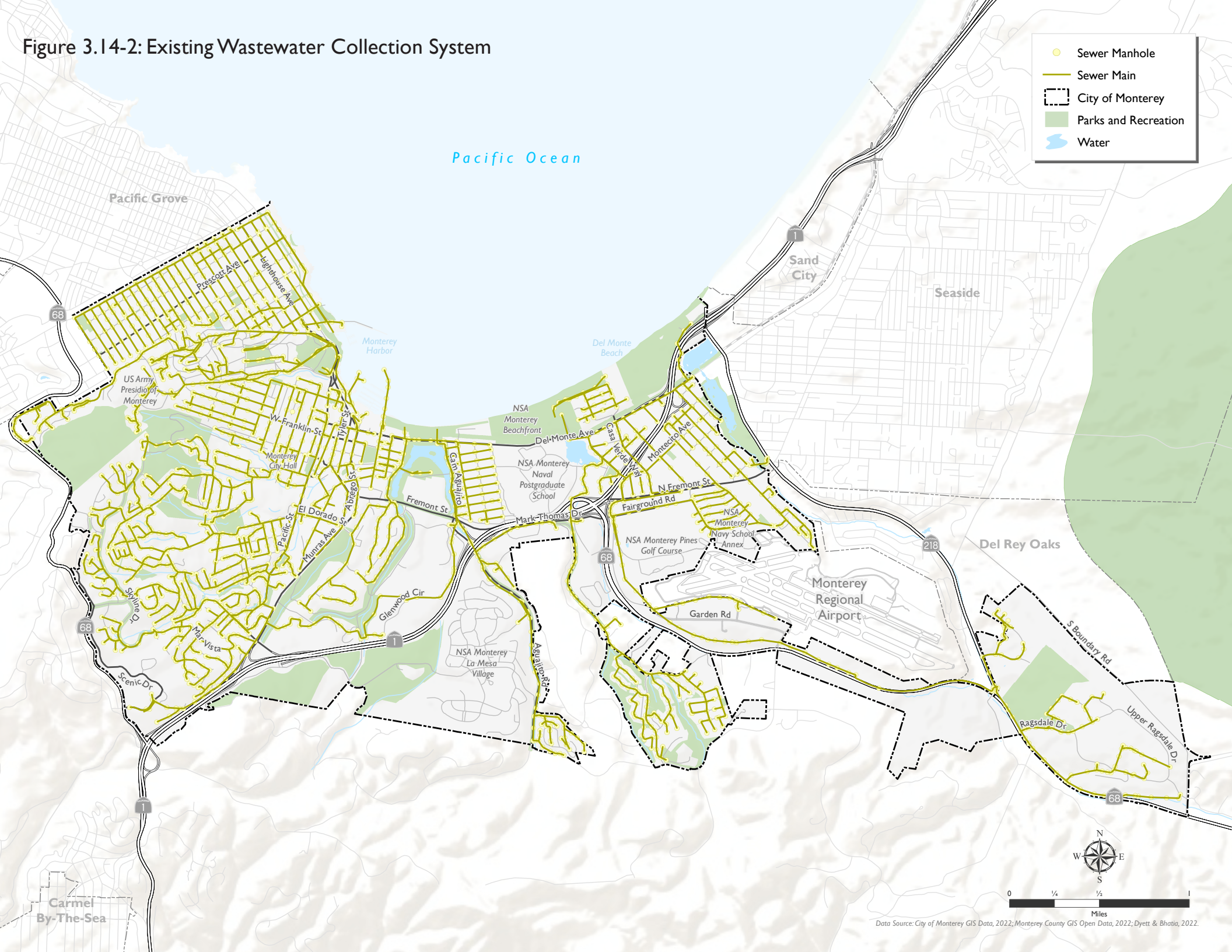
City of Monterey

The City of Monterey provides sanitary sewer collection and conveyance services for customers within the City of Monterey and has intergovernmental services agreements with the U.S. Army Garrison Presidio of Monterey (POM). The City of Monterey owns and operates a sewer infrastructure (see Figure 3.14-2) consisting of 99 miles of gravity sewer mains and 1.5 miles of force mains, 7 lift stations, and over 2,300 manholes.[7] This also includes sewer collection infrastructure on the federally-owned POM and a few select sewer easements through the U.S. Naval Support Activity Monterey (NSA Monterey), but does not include the majority of the collection system on NSA Monterey properties. The POM sanitary sewer collection and conveyance system is owned by the City of Monterey, but was traditionally a separate system. Through an ongoing agreement, the two agencies partner and communicate on any needs related to Presidio infrastructure, including sanitary sewer flows, overflows, operations, maintenance, and rehabilitation needs.

[6] iGrow News, "Monterey One Water to Expand Anaerobic Digestion Capacity," June 6, 2023, accessed at https://igrownews.com/monterey-one-water-to-expand-anaerobic-digestion-capacity/

[7] City of Monterey, 2019. Sewer System Management Plan. Available: /https://files.monterey.org/Document%20Center/Public%20Works/Engineering/Environmental%20Regulations/Sanitary%20Sewer%20Program/SSMP-Plan.pdf. Accessed: September 18, 2023.

Figure 3.14-2: Existing Wastewater Collection System



Data Source: City of Monterey GIS Data, 2022; Monterey County GIS Open Data, 2022; Dyett & Bhatia, 2022.

Stormwater

The City of Monterey owns and operates a public storm drain system that collects surface runoff and conveys it through local creeks and estuaries to Monterey Bay without treatment. As shown on Figure 3.14-3, the system consists of ten miles of pipelines and drainage channels. City personnel maintain the lines by cleaning the catch basins and the storm inlets. A portion of the cost for the maintenance and capital replacement of the storm drain system is recovered through a storm water utility fee.

Garbage, Recycling, and Organics Collection Service

Solid waste collection, disposal, and recycling system in Monterey is managed by the Monterey Regional Waste Management District (ReGen Monterey). It also receives and processes most of Monterey County's sewage sludge from the adjacent Monterey One Water Regional Wastewater Treatment Plant. MRWMD covers a total of 853 square miles, including the cities of Carmel-by-the-Sea, Del Rey Oaks, Marina, Monterey, Pacific Grove, Sand City, Seaside, and the unincorporated areas of Big Sur, Carmel Highlands, Carmel Valley, Castroville, Corral De Tierra, Laguna Seca, Moss Landing, Pebble Beach, San Benancio, and Toro Park. The population currently served is approximately 170,000.[8]

The Waste Management District operates the Monterey Peninsula Landfill, a materials recovery facility, and a transfer station at a 475-acre site north of the City of Marina. The landfill operates 6 days per week and is permitted to receive 3,500 tons of waste per day; it has a remaining capacity of approximately 48.5 million cubic yards and is expected to reach its permitted capacity in 2107.[9] The landfill receives approximately 600,000 tons of municipal waste per year, which averages to less than 2,000 tons of waste per day.[10] In addition to the more commonly recycled and reused materials (such as paper, cardboard, bottles, and cans), materials targeted by operators at the materials recovery facility include commercial waste, wood waste, and yard waste, construction and demolition debris, and materials in self-haul loads. Monterey City Disposal Service (MCDS) provides standard residential services to residences within the Planning Area using a 35-gallon brown wheeled cart for garbage, a 64-gallon green wheeled cart for yard waste, and a 64-gallon blue wheeled cart for recycling (35-gallon wheeled recycle carts are available for those who request them). [11]

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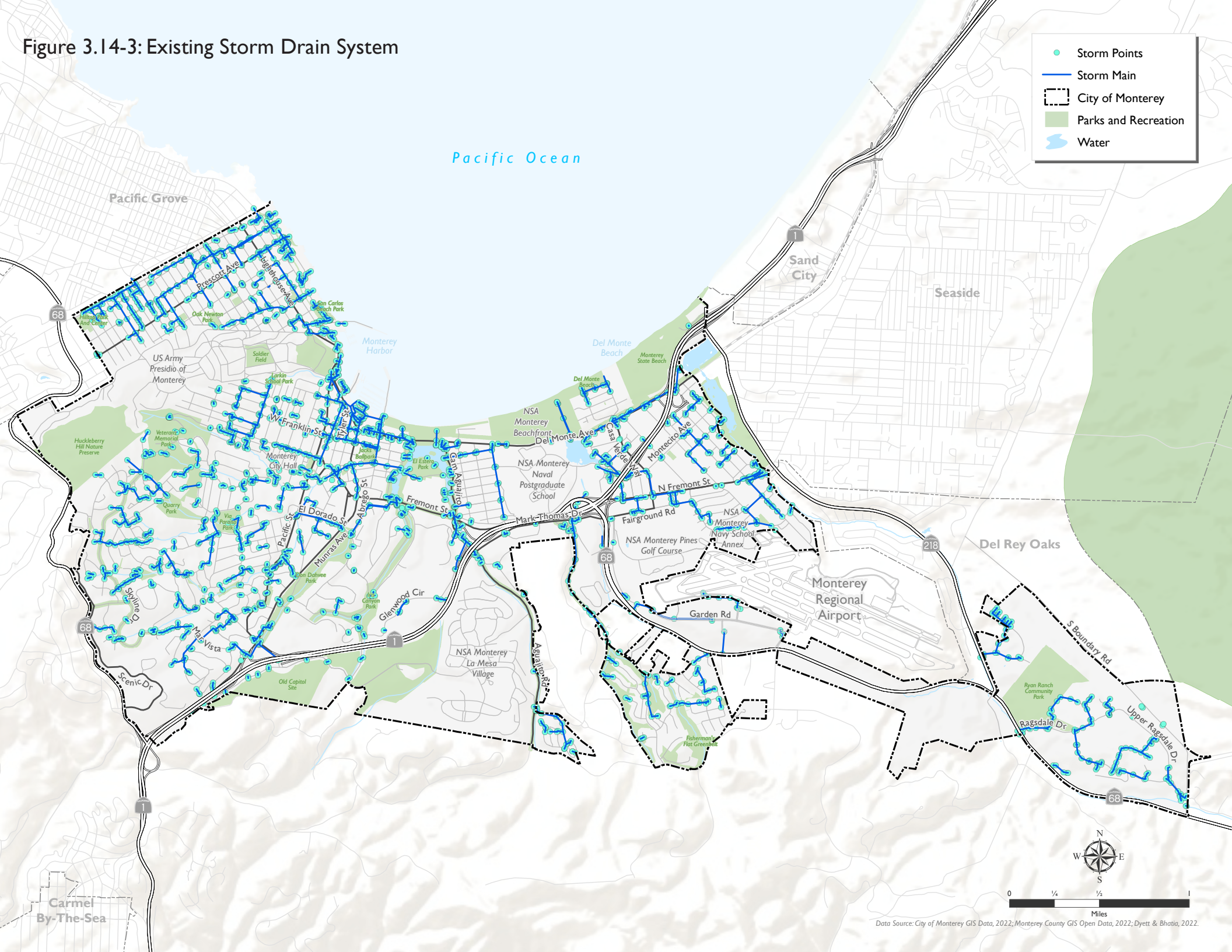
[8] ReGen Monterey, 2023. About Us. Available: https://regenmonterey.org/about/#1488961033450-0782f568-b1863b55-93c5. Accessed: September 18, 2023.

[9] California Department of Resources Recycling and Recovery (CalRecycle), 2023. SWIS Facility/Site Activity Details: Monterey Peninsula Landfill (27-AA-0010). Available: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2642?siteID=1976. Accessed: September 20, 2023.

[10] ReGen Monterey, 2023. Monterey Peninsula Landfill. Available: https://regenmonterey.org/monterey-peninsula-landfill/. Accessed: September 20, 2023.

[11] Monterey Disposal Service, 2016. Service for Residents. Available: http://www.montereydisposal.com/our-services/residents. Accessed: September 21, 2023.

Figure 3.14-3: Existing Storm Drain System



Data Source: City of Monterey GIS Data, 2022; Monterey County GIS Open Data, 2022; Dyett & Bhatia, 2022.

Electricity, Natural Gas, and Telecommunications

Pacific Gas and Electric (PG&E) provides all-natural gas and electric infrastructure in the Planning Area. Central Coast Community Energy provides electricity to customers in Monterey County using PG&E infrastructure; if individuals choose to opt out of Central Coast Community Energy, PG&E provides electricity. PG&E provides natural gas to the City of Monterey. All buildings within the Planning Area have existing connections to infrastructure. Existing overhead and underground electrical lines extend throughout the Planning Area. These lines have been installed to serve the variety of land uses currently in this area of Monterey. There are numerous telecommunication providers in the city for DSL, wireless, cable, and fiber optic services. Approximately nine internet service providers in the city offer residential services and six offer business services. Service providers such as XFINITY, AT&T, Viasat, and Hughes Net, among many others, provide telecommunication services to residents and businesses in the city. Underground conduits are located in the vicinity of the Planning Area.[12]

REGULATORY SETTING

Federal Regulations

Federal Safe Drinking Water Act

The Safe Drinking Water Act (SDWA), administered by the U.S. Environmental Protection Agency (EPA) in coordination with the states, is the main federal law that ensures the quality of drinking water. Under the SDWA, the U.S. EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. The Department of Public Health administers the regulations contained in the SDWA in the State of California.

United States Environmental Protection Agency

The 1986 amendments to the Safe Drinking Water Act and the 1987 amendments to the Clean Water Act (CWA) established the EPA as the primary authority for water programs. The EPA is the federal agency responsible for providing clean and safe surface water, groundwater, and drinking water, and protecting and restoring aquatic ecosystems. The planning area is in EPA Region 9 (Pacific Southwest), which includes Arizona, California, Hawaii, Nevada, Pacific Islands, and Tribal Nations.

Federal Water Pollution Control Act of 1972 (Clean Water Act)

The CWA establishes the basic structure for regulating discharges of pollutants into "waters of the United States." The CWA specifies a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. Some of these tools include Total Maximum Daily Loads (TMDLs), water quality certification, and regulations on discharge of dredge or fill material. For more details, see Section 3.9 Hydrology and Water Quality.

[12] BroadBandNow. 2023. Internet Providers in Monterey, California. Available: https://broadbandnow.com/California/Monterey?zip=93940. Accessed: September 22, 2023.

National Pollutant Discharge Elimination System

The CWA was amended in 1987 to include urban and stormwater runoff, which required many cities to obtain a National Pollution Discharge Elimination System (NPDES) permit for stormwater conveyance system discharges. Section 402(p) of the CWA prohibits discharges of pollutants contained in stormwater runoff, except in compliance with a NPDES permit. For more details, see Section 3.9 Hydrology and Water Quality.

State Regulations

California Porter–Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the State Water Resources Control Board (SWRCB) and nine regional water quality control boards address water quality and rights regulation. The five-member SWRCB protects water quality by setting statewide policy, coordinating and supporting the Regional Water Quality Control Board (RWQCB) efforts, and reviewing petitions that contest RWQCB actions. The SWRCB is also solely responsible for allocating surface water rights. Each RWQCB makes critical water quality decisions for its region, including setting standards, issuing waste discharge requirements, determining compliance with those requirements, and taking appropriate enforcement actions. The planning area lies within the jurisdiction of the Central Coast RWQCB.

The Act authorizes the SWRCB to enact state policies regarding water quality in accordance with CWA 303. In addition, the Act authorizes the SWRCB to issue waste discharge requirements (WDRs) for projects that would discharge to State waters. SWRCB Order No. 2006-0003 provides a consistent statewide approach to reducing sanitary sewer overflows (SSOs) by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, to prevent sanitary sewer waste from entering the storm sewer system, and to develop a sewer system management plan.

The Porter-Cologne Water Quality Control Act further requires that the SWRCB or the RWQCBs adopt water quality control plans (basin plans) for the protection of water quality. Basin plans also provide the technical basis for determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals. For more details, see Chapter 3.9 Hydrology and Water Quality.

The SWRCB also manages the Division of Drinking Water (DDW), which regulates public water supply systems. Regulatory responsibilities include the enforcement of the federal and State Safe Drinking Water Acts, the regulatory oversight of public water systems, issuance of water treatment permits, and certification of drinking water treatment and distribution operators. State regulations for potable water are contained primarily within the Food and Agricultural Code, the Government Code, the Health and Safety Code, the Public Resources Code, and the Water Code. Regulations are from Title 17 and Title 22 of the California Code of Regulations. Recycled water programs are also regulated by the SWRCB. The regulations governing recycled water are found in a combination of sources including the Health and Safety Code, Water Code, and Titles 22 and 17 of the California Code of Regulations. Issues related to treatment and distribution of recycled water are generally under the influence of the SWRCB.

California Department of Water Resources

The California DWR is responsible for the operation and maintenance of the California State Water Project. DWR is also responsible for overseeing the statewide process of developing and updating the California Water Plan (Bulletin 160 series); protecting and restoring the Sacramento–San Joaquin Delta; regulating dams, providing flood protection, and assisting in emergency management; educating the public about the importance of water and its proper use; and providing technical assistance to service local water needs.

Senate Bills 610 and 221

Enacted in 2002, SB 610, which was codified in the State Water Code beginning with section 10910, requires the preparation of a water supply assessment (WSA) for projects within cities and counties that propose to construct 500 or more residential units or the equivalent. SB 610 stipulates that when environmental review of certain large development projects is required, the water agency that is to serve the development must complete a WSA to evaluate water supplies that are or will be available during normal, single-dry, and multiple-dry years during a 20-year projection to meet existing and planned future demands, including the demand associated with a proposed project. The WSA for the Proposed Plan is included as Appendix I of this Draft EIR.

Enacted in 2001, SB 221, which was codified in the State Water Code beginning with section 10910, requires that the legislative body of a city or county, which is empowered to approve, disapprove, or conditionally approve a subdivision map, must condition such approval upon proof of sufficient water supply. The term "sufficient water supply" is defined in SB 221 as the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection that would meet the projected demand associated with the proposed subdivision. The definition of sufficient water supply also includes the requirement that sufficient water encompass not only the proposed subdivision, but also existing and planned future uses, including agricultural and industrial uses.

The Water Conservation Act of 2009 (SB X7-7)

California legislation enacted in 2009 as SB 7 of the 7th Special Legislative Session (SB X7-7) instituted a new set of urban water conservation requirements known as "20 Percent By 2020." These requirements stipulate that urban water agencies reduce per-capita water use within their service areas by 20 percent relative to their use over the previous 10 to 15 years. California American Water plans to comply with the SB X7-7 requirements through a combination of ongoing water conservation measures. Calculations for the 2020 Monterey District UWMP determined that as of 2015, the Monterey Main water system had met the obligations of SB X7-7 (see Local Regulations below).

Green Building Code and Title 24 Updates

The California Green Building Standards Code (CALGreen) (Part 11, Title 24) was adopted as part of the California Building Standards Code (24 California Code of Regulations). Part 11 established voluntary standards that became mandatory under the 2010 edition of the code. These involved sustainable site development, energy efficiency (in excess of California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The current energy efficiency standards were adopted in 2022 and took effect on January 1, 2023. Notably, CALGreen requires all permitted residential and non-residential construction, demolition and

additions/alterations projects to recycle or salvage a minimum 65 percent of nonhazardous construction materials from the project.

State Updated Model Water Efficient Landscape Ordinance (Assembly Bill 1881 (2006))

The State's updated Model Water Efficient Landscape Ordinance (MWELO) requires cities and counties to adopt landscape water conservation ordinances by July 15, 2015. The City of Monterey has adopted and incorporated California Code of Regulations Section 490 et seq. (Model Water Efficient Landscape Ordinance), Monterey Peninsula Water Management District Rule 142 (Water Efficiency Standards), and Rule 143 (Water Efficiency Standards for Existing Non-Residential Uses) in Section 38-138 of the Monterey Municipal Code.

California Urban Water Management Planning Act

The California Legislature enacted the Urban Water Management Planning Act of 1983 (California Water Code Sections 10610 through 10656) to support conservation and efficient use of urban water supplies at the local level. The act requires that every urban water supplier that provides water to 3,000 or more customers, or over 3,000 AF of water annually, to make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its customers during normal, dry, and multiple-dry years. The act requires that total projected water use be compared to water supply sources over the next 20 years in five-year increments, that planning occur for single- and multiple-dry water years, and that plans include a water recycling analysis that incorporates a description of the wastewater collection and treatment system within the agency's service area along with current and potential recycled water uses.

Applicable urban water suppliers within California are required by the Water Code to prepare and adopt a UWMP and update it every five years. A UWMP is required in order for a water supplier to be eligible for the DWR-administered state grants, loans, and drought assistance. A UWMP provides information on water use, water resources, recycled water, water quality, reliability planning, demand management measures, best management practices (BMPs), and water shortage contingency planning for a specified service area or territory.

California Emergency Graywater Regulations

In 2009, as part of the Governor's declared State of Emergency, Chapter 16A "Nonpotable Water Reuse Systems" was incorporated into the 2007 California Plumbing Code. Chapter 16A establishes minimum requirements for the installation of graywater systems in residential occupancies regulated by the California Department of Housing and Community Development, providing guidance and flexibility designed to encourage the use of graywater. The standards allow small graywater systems to be installed in homes without a construction permit, substantially reducing the barriers to installing small residential graywater systems in California. The purpose of the regulations is to conserve water by facilitating greater reuse of laundry, shower, sink, and similar sources of discharge for irrigation and/or indoor use; to reduce the number of noncompliant graywater systems by making legal compliance easily achievable; to provide guidance for avoiding potentially unhealthful conditions; and to provide an alternative way to relieve stress on private sewage disposal systems.

Assembly Bill (AB) 1668 and Senate Bill (SB) 606

Passed in 2018, AB 1668 and SB 606 establish guidelines for efficient water use and a framework for the implementation and oversight of the new standards, which must be in place by 2022. The two bills strengthen the state's water resiliency in the face of future droughts with provisions that include:

- Establishing water use objectives and long-term standards for efficient water use that apply to urban retail water suppliers; comprised of indoor residential water use, outdoor residential water use, commercial, industrial and institutional (CII) irrigation with dedicated meters, water loss, and other unique local uses.
- Providing incentives for water suppliers to recycle water.
- Identifying small water suppliers and rural communities that may be at risk of drought and water shortage vulnerability and provide recommendations for drought planning.
- Requiring both urban and agricultural water suppliers to set annual water budgets and prepare for drought.

Each urban water supplier, starting in November of 2023, will calculate its own objective based on the water needed in its service area for efficient indoor residential water use, outdoor residential water use, commercial, industrial, and institutional (CII) irrigation with dedicated meters and reasonable amounts of system water loss from leaks, the fact sheet states. In determining their objectives, water suppliers will also consider other unique local uses and credits for potable water reuse, based on standards adopted by the state water board.

California's Department of Resources Recycling and Recovery

California Department of Resources Recycling and Recovery (CalRecycle) is the State's leading authority on recycling, waste reduction, and product reuse. CalRecycle plays an important role in the stewardship of California's vast resources and promotes innovation in technology to encourage economic and environmental sustainability. CalRecycle brings together the State's recycling and waste management programs and continues a tradition of environmental stewardship. Mandated responsibilities of CalRecycle are to reduce waste, promote the management of all materials to their highest and best use, and protect public health and safety and the environment.

California Integrated Waste Management Act (AB 939)

Assembly Bill 939, California's Integrated Waste Management Act of 1989, mandates that 50 percent of solid waste be diverted by the year 2000 through source reduction, recycling, and composting. AB 939 also establishes a goal for all California counties to provide at least 15 years of ongoing landfill capacity. This requires each region to prepare a source reduction and recycling element to be submitted to CalRecycle, which administers programs formerly managed by the state's Integrated Waste Management Board and Division of Recycling. The City of Monterey participates in the Monterey Regional Waste Management District. (MRWMD). The 50 percent diversion goal has since been updated to 75 percent per AB 341, discussed below. AB939 led ReGen Monterey to establish many of the programs in operation at MRWMD today, including the Last Chance Mercantile, the Household Hazardous Waste collection facility, and the Public Outreach and Small Planet School Education programs.

California Solid Waste Reuse and Recycling Access Act of 1991 (AB 1327)

AB 1327 was established in 1991, which required CalRecycle to develop a model ordinance for the adoption of recyclable materials in development projects. Local agencies were then required to adopt the model, or an ordinance of their own, governing adequate areas for collection and loading of recyclable materials in development projects.

Disposal Measurement System Act of 2008 (SB 1016)

SB 1016 maintains the 50 percent diversion rate requirement established by AB 939, while establishing revised calculations for those entitles who did not meet the 50 percent diversion rate. SB 1016 also established a per capita disposal measurement system to make the process of goal measurement, as established by AB 939, simpler, timelier, and more accurate. The new disposal-based indicator—the per capita disposal rate—uses only two factors: a jurisdiction's population (or in some cases employment) and its disposal as reported by disposal facilities.

Solid Waste Diversion (AB 341)

Effective July 1, 2012, AB 341 established a policy goal for the state that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020. This report, as directed by the Legislature, provides strategies to achieve that 75 percent goal. A Report to the Legislature accompanied the passage of AB 341 and outlined five strategies and three additional focus areas as potential pathways that can be pursued to achieve this goal. Subsequent reports on the State of Recycling and Disposal were published in 2015, 2016, and 2017. AB 341 also requires that commercial enterprises that generate four cubic yards or more of solid waste weekly participate in recycling programs. This requirement includes multifamily housing complexes of five units or more, regardless of the amount of solid waste generated each week.

Assembly Bill 1826

Adopted in 2016, Assembly Bill 1826 (AB 1826) requires that state agencies, businesses, and multifamily complexes that generate specific quantities of organic or solid waste each week enroll in organic recycling programs through an applicable solid waste disposal company. Organic recycling programs may take the form of composting, mulching, or anaerobic digestion. Businesses and multifamily residential housing complexes that generate the following quantities are required to implement organic or solid waste recycling programs under AB 1826:

- Eight or more cubic yards of organic waste per week as of April 1, 2016;
- Four of more cubic yards of organic waste per week as of January 1, 2017; and
- Four or more cubic yards of solid waste per week as of January 1, 2019.

CalRecycle is currently evaluating whether California has achieved its statewide organic disposal goal of reducing organic waste disposal to 50 percent of 2014 levels by 2020. If this goal is not achieved, organic composting and recycling requirements will be expanded such that businesses that generate two or more cubic yards of solid waste per week must comply.

Regional

California American Water 2020 Urban Water Management Plan

California American Water Urban Water Management Plan (UWMP) was prepared in response to California's Urban Water Management Planning Act, Water Code Sections 10610 through 10656. The act requires every urban water supplier that provides water to more than 3,000 customers for municipal purposes or supplies more than 3,000 acre-feet of water annually to prepare and adopt an UWMP and update the plan every 5 years. In June 2021, Cal-Am's 2020 Urban Water Management Plan was published. This plan is an update to the 2015 UWMP and carries forward information from that plan that remains current and is relevant to this plan and provides additional information as required by amendments to the Urban Water Management Planning Act (UWMP Act; CWC §10610 – 10657). The UWMP discusses the status of projects, programs, and studies regarding water supply planning, water conservation, and recycled water. Cal-Am manages several programs and projects in the county that focus on water quality, pollution prevention, water conservation, and stream and creek protection.

Marina Coast Water District 2020 Urban Water Management Plan

In May 2021, MCWD's 2020 Urban Water Management Plan was published. This plan is an update to the 2015 UWMP and carries forward information from that plan that remains current and is relevant to this plan and provides additional information as required by amendments to the Urban Water Management Planning Act (UWMP Act; CWC §10610 – 10657). The UWMP discusses the status of projects, programs, and studies regarding water supply planning, water conservation, and recycled water. MCWD manages several programs and projects in the service area that focus on water quality, pollution prevention, and water conservation.

Monterey Peninsula Water Management District Water Efficient Landscape Requirements

California's first Model Water Efficient Landscape Ordinance (WELO) was adopted in September 2009 and amended in July 2015. As part of the MPWMD's Water Permit process, staff routinely evaluates the Water Use Capacity of the landscape and verifies compliance with its requirements. Beginning in 2016, MPWMD began reporting regionwide compliance with WELO to the California Department of Water Resources. As the regional water manager, MPWMD is the appropriate agency to implement the water efficient landscape requirements. Agencies such as MPWMD were directed to update their local/regional WELO, which MPWMD did by codifying Rule 142.1 in its Rules and Regulations in September 2016.

Local Regulations

City of Monterey Sewer System Management Plan

The City of Monterey Sewer System Management Plan (SSMP) provides a guide to properly manage, operate, and maintain all parts of the sanitary sewer collection and conveyance system in order to help reduce and prevent sanitary sewer overflows (SSOs), as well as mitigate any SSOs that occur. The goals of the SSMP are to:

- Reduce the occurrences of Sanitary Sewer Overflows (SSOs) and respond quickly to mitigate any impact of the overflow.

- Complete citywide Sanitary Sewer Collection System Rehabilitation Project construction in 2019.
- Continue to identify and prioritize structural deficiencies and implement short-term maintenance and rehabilitation actions to address each deficiency.
- Update and maintain standards and specifications for the installation of new sewer assets and rehabilitated existing sewer assets.
- Exercise preventative maintenance on the collection system as outlined in the Operation and Maintenance Program to decrease SSOs.
- Perform an on-going Condition Assessment of collection system on a 10-year cycle, with a goal of completing 10% of the sewer collection system per year.
- Continue to update inventory of FOG-producing facilities and implement FOG inspection program as a SSO reduction strategy.
- Annually communicate with satellite sewer systems regarding the operation and maintenance of these systems.

City of Monterey 2005 General Plan

The City of Monterey General Plan (General Plan) includes the following goals and policies associated with utilities and service systems:

Public Facilities Element

Goal a. Phase future development in accordance with the City's ability to service it.

> **Policy a.1.** Use the City's capital improvement program for determining short-range priorities for the allocation of public facilities funds consistent with the General Plan.
>
> **Policy a.2.** Encourage review of proposed public facilities of all agencies by the City Planning Commission.
>
> **Policy a.3.** Encourage infill development within the City where it can efficiently be provided with public facilities and utilities.
>
> **Policy a.4.** Major new developments, such as annexed areas, should generate enough revenues to pay for the public services they demand.
>
> **Policy a.5.** Reserve adequate space in new development for schools, parks, playgrounds, bikeways, community centers, libraries, fire stations and other public facilities.
>
> **Policy a.6.** Control the rate of development if all projects being proposed cannot adequately be served with public facilities or could cause a rate of growth higher than the community feels is acceptable.

Goal k. Continue cooperation with Monterey One Water (formerly Monterey Regional Water Pollution Control Agency) to maintain an environmentally compliant closed system (system that complies with environmental regulations) that ultimately allows partial reuse of the wastewater.

Policy k.1. Encourage measures to promote proper disposal of pollutants into the sanitary sewer or hazardous waste facilities rather than into the storm drainage system.

Policy k.2. Continue inspections of the City's sewer pipe system to prioritize maintenance needs.

Policy k.3. Set sewer fees at a rate sufficient to maintain and, when necessary, replace the system.

Goal l. Continue to improve drainage and urban runoff quality throughout the City and maintain Monterey's status as a regional lead agency for storm water management programs.

Policy l.1. Set storm drain fees at a rate sufficient to maintain and, when necessary, replace and upgrade the system.

Policy l.2. The City of Monterey will comply with requirements from State regulatory agencies related to urban runoff quality. This includes required implementation of the National Pollution Discharge Elimination System (NPDES) Phase II six minimum measures. These include: 1) Public education and outreach; 2) public participation/involvement; 3) illicit discharge detection and elimination; 4) construction site runoff control; 5) post-construction runoff control; and 6) pollution prevention/good housekeeping.

Goal m. Develop long-term water supplies and conservation methods so that there is sufficient water to implement General Plan goals.

Policy m.1. Develop alternatives for long-term water supply both within and outside the framework of the Water Management District and the California American Water Company.

Goal n. Continue to provide facilities to implement cost-effective and incentive-based recycling programs and education for items such as yard waste, vehicle oil, food containers, cardboard, and mixed paper to divert waste generated by residential and commercial customers.

Policy n.1. Continue to provide specific waste reduction and recycling programs for users, such as manufacturing, restaurant, business, military, and residential customers.

Policy n.2. Encourage the development of commercial composting and educational programs.

Policy n.3. Implement waste and recycling enclosure standards for all new developments and remodels.

Monterey City Code

Chapter 14, Article 1, Waste Disposal, of the Monterey Municipal Code notes the service requirements for single-family and multifamily premises, as well as commercial businesses. This chapter requires businesses generating four or more cubic yards of solid waste per week and all

multi-family property owners (five units or more) to obtain a level of recycling service adequate for the amount of recyclables they generate.

Chapter 30, Sewers and Sewage Disposal, outlines the connections to City sewer, maintenance of sanitary sewer laterals, and sewer overflows. The purpose of this chapter is to provide definitions and to inform the public about responsibilities for cleaning the public sewer main and lateral lines owned by respective property owners.

Chapter 31.5, Article. 2, Urban Storm Water Quality Management and Discharge Control of the Monterey City Code ensures the health, safety, and general welfare of citizens, and aims to protect and enhance the water quality of waters of the State and waters of the United States and protect water bodies in a manner pursuant to and consistent with the National Pollutant Discharge Elimination System (NPDES) and Central Coast Regional Water Quality Control.

Chapter 19-112.4, Wireless Communication Facilities, regulates wireless telecommunication facilities in the Planning Area. The purpose of this chapter is to provide a uniform set of standards for the permitting, development, siting, installation, design, operation, and maintenance of wireless telecommunications facilities in the town to avoid visual impacts and impacts to listed and candidate endangered species and habitats. No wireless telecommunications facility shall be located or modified within the City on any property, including the public right-of-way, without a use permit subject to the requirements of this chapter.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if implementation of the Proposed Plan would:

Criterion 1: **Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;**

Criterion 2: **Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;**

Criterion 3: **Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;**

Criterion 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; or**

Criterion 5: Comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

METHODOLOGY AND ASSUMPTIONS

Potential impacts on utilities and service systems are analyzed within the context of existing plans and policies, permitting requirements, local ordinances, the Monterey City Code, and the policies and programs included in the Proposed Plan. The analysis of water supply availability is based on a WSA prepared by Cal-Am and the projected demand and supply assumptions of the MCWD's 2020 UWMP. The Cal-Am WSA is referenced in the analysis and included as Appendix I.

In August 2023, the City also requested a WSA from the MPWMD to evaluate whether total projected water supplies available during normal, single-dry and multiple-dry water years would be sufficient to serve projected demand from the Proposed Plan, including up to 5,800 new housing units and 1,995 new jobs by 2031. In response, MPWMD sent a letter to the City in January 2024 asserting that a future Supply versus Demand analysis based on the AMBAG 2022 Regional Growth Forecast demonstrates existing and planned sources of supply would be sufficient to meet the region's demand needs for over 30 years. However, the AMBAG 2022 Regional Growth Forecast does not fully account for the City's 2023-31 RHNA allocation and is not based on employment projections that accurately reflect the number of existing jobs in the City of Monterey in 2023. As such, the letter from MPWMD does not provide sufficient basis for assessing whether projected supply would be sufficient to meet the projected water demand associated with the Proposed Plan, in combination with the existing and planned future uses. The January 2024 MPWMD letter is also included in Appendix I.

RELEVANT PROPOSED GOALS AND POLICIES

The Proposed Plan contains the following goals and policies relevant to utilities and service systems. The full text of proposed Housing Element programs is included in Appendix A for reference:

Land Use Element

Policy A.4: Focus new development primarily in commercial districts and mixed use neighborhoods so as to support the vitality of existing businesses, optimize the use of utility infrastructure, and reduce vehicle trip frequency, length, and associated emissions.

Policy A.6: Use development agreements, impact fees, benefits districts, and other mechanisms to ensure the provision of adequate infrastructure to serve new development.

Housing Element

Housing Goal #2 Remove or reduce barriers to housing production in Monterey and address the regulatory, process, and market factors that limit and adversely affect affordability.

Program 2-J Water Distribution Policy

Program 2-K Addressing Water Supply Constraints

IMPACTS

Impact 3.14-1 Development under the Proposed Plan would have insufficient water supplies available to serve the Planning Area and reasonably foreseeable future development during normal, dry and multiple dry years. (*Significant and Unavoidable*)

Water service for the majority of the Planning Area is provided by Cal-Am and an approximately 135 acres of land at Fort Ord is within the MCWD service area. A significant impact would result if supply from either district would be insufficient to meet projected demand from the Proposed Plan and reasonably foreseeable future development within the respective services areas during normal, dry, and multiple dry years.

California American Water Company (Cal-Am) Supply

A Water Supply Assessment (WSA) was prepared to assess whether the total projected water supplies available within the Cal-Am service area during average, single dry, and five-consecutive dry water year scenarios would meet the projected water demand from the Proposed Plan in combination with existing and planned future uses in the service area over a 30-year projection period. The Cal-Am WSA is included in Appendix I to this Draft EIR.

The WSA projected future demand by evaluating monthly historic trends in customer water usage and incorporating estimated future changes in water use due to behavioral changes, new water use regulations, projected growth, tourism water use, and employment projections by the Association of Monterey Bay Area Governments (AMBAG). Water use for residential customers was approximately 55.2 gallons per capita per day (GPCD) for the period from 2018 through 2022, including indoor and outdoor use. It was anticipated that residential use could increase by 10 percent to 60.7 GPCD by 2030 when a new supply source is online and is expected to reduce the need for usage restrictions. For non-residential customers, water use was anticipated to increase at the rate of employment growth forecasted by AMBAG. Nonresidential demand includes the commercial, industrial, other public authority, company accounts, miscellaneous sales, sale for resale, fire service, and water loss categories, and is calculated as total water production minus residential metered sales. Additionally, total projected demand in the WSA accounts for 325 AFY of water entitled to the Pebble Beach Company for Del Monte Forest property owners; a projected 500 AFY increase in tourism-related water demand; 1,180 AFY of water for lots of record previously entitled but as yet to develop because of water supply constraints; and an additional 745 AFY to meet projected RHNA demand for 6,213 new housing units in all jurisdictions with the Cal-Am service area by 2031, including 3,654 new housing units in the City of Monterey. Table 3.14-2 shows total projected demand in the Cal-Am service area through 2050 from the WSA.

Table 3.14-2 Historic and Projected Water Demand in the Cal-Am Service Area

Customer Class	*Baseline (2018-2022)*	*2025*	*2030*	*2035*	*2040*	*2045*	*2050*
Residential Demand (AF)	5,673	5,788	6,493	6,620	6,746	6,873	6,999
Non-Residential Demand (AF)	3,773	3,932	4,091	4,250	4,409	4,569	4,728
Pebble Beach Entitlements		0	65	130	195	260	325
Tourism Rebound		250	500	500	500	500	500
Legal Lots of Record		0	300	520	740	960	1,180
RHNA Demands		0	370	745	745	745	745
Total Demands (AFY, nearest ten)	**9,450**	**9,970**	**11,820**	**12,760**	**13,340**	**13,910**	**14,480**

Source: Water Supply Assessment, California American Water Company (Cal-Am), 2023, Appendix I

Table 3.14-3 shows total available water supply under the normal year scenario as projected in the WSA, while Table 3.14-4 shows total projected available water supply under the single dry year scenario. As shown, under both scenarios, available supply would not be sufficient to serve total projected demand in 2025; however, if anticipated future supply from the Pure Water Monterey Expansion Project and the Monterey Peninsula Water Supply Project Ocean Desalination Plant become available by 2030, total available supply would exceed demand in 2031. Similarly, the WSA finds that with these additional future sources of supply, total available supply within the Cal-Am service area in 2031 under a multiple dry year scenario would exceed projected demand. Until the new supplies come online, Cal-Am will use its Water Shortage Contingency Plan measures to maintain demand below the available supply.

However, while Phase 2 of the Pure Water Monterey Expansion Project is anticipated to deliver an additional 2,250 AFY of water to the Seaside Basin that would be available to Cal-Am customers, the project has not been proven to provide the full 2,250 AFY, particularly during dry years. A 2022 analysis determined that the expansion can be reasonably expected to provide 2,001 to 2,234 AFY during normal conditions and 0 to 1,100 AFY during drought conditions. Further, funding for the Ocean Desalination Plant has not yet been identified and construction has not yet begun. As such, it cannot be said with certainty that the plant will be operational by 2030 as envisioned. No other feasible sources of additional water supply have been identified. Therefore, Mitigation Measure UTIL-1, which requires that all new construction and remodels comply with the Monterey Peninsula Water Management District Rule 142 Water Efficiency Standards is required.

Table 3.14-3: Normal Year Supply and Demand Comparison

	2025	*2030*	*2035*	*2040*	*2045*	*2050*
Demand Totals, AFY	9,970	11,820	12,770	13,340	13,910	14,480
Water Supply, AFY						
Carmel River Aquifer	3,376	3,376	3,376	3,376	3,376	3,376
Seaside Groundwater Basin	1,474	774	774	774	774	774
Sand City Desalination	94	94	94	94	94	94
ASR	470	470	470	470	470	470
Pure Water Monterey	3,500	3,500	3,500	3,500	3,500	3,500
Pure Water Monterey Expansion[1]	0	2,001 - 2,234	2,001 - 2,234	2,001 - 2,234	2,001 - 2,234	2,001 - 2,234
Pure Water Monterey Reserves	0	0	0	0	0	0
MPWSP Ocean Desalination	0	5,372	6,252	6,252	6,252	6,252
Low Range Total Supply (AFY	**8,914**	**15,587**	**16,467**	**16,467**	**16,467**	**16,467**
Operation Buffer (10%)	-891	-1,022	-1,022	-1,022	-1,022	-1,022
Surplus/ Shortfall	**-1,947**	**2,746**	**2,676**	**2,106**	**1,536**	**966**
High Range Total Supply (AFY)	**8.914**	**15,820**	**16,700**	**16,700**	**16,700**	**16,700**
Operation Buffer (10%)[2]	-891	-1,045	-1,045	-1,045	-1,045	-1,045
Surplus/ Shortfall	**-1,947**	**2,955**	**2,885**	**2,315**	**1,745**	**1,175**

Source: Water Supply Assessment, California American Water Company (Cal-Am), 2023, Appendix I

Nevertheless, while implementation of Mitigation Measure UTIL-1 would reduce water demand resulting from implementation of the Proposed Plan to the extent feasible, compliance with these standards alone would not be sufficient to offset the anticipated supply shortfall under average, single dry year, or multiple dry year scenarios and impacts would remain significant and unavoidable even after implementation of all feasible mitigation.

Marina Coast Water District Supply

The MCWD 2020 UWMP projects that available groundwater supply will be sufficient to meet demand in its service area through 2040. As described above, the UWMP identifies a reliable supply of 9,620 AFY from the Salinas Valley Groundwater Basin pursuant to the agreements under which MCWD and the former Fort Ord were separately annexed into Monterey County Zones 2/2A in 1996 and 1993, respectively. This supply is sufficient to meet total projected demand of 9,574 AFY in the service area through 2040, including a projected demand for 130 AFY from the City of Monterey, as shown in Table 3.14-5.

Table 3.14-4 Single Dry Year Supply and Demand Comparison

	2025	*2030*	*2035*	*2040*	*2045*	*2050*
Demand Totals, AFY	9,970	11,820	12,770	13,340	13,910	14,480
Water Supply, AFY						
Carmel River Aquifer	3,376	3,376	3,376	3,376	3,376	3,376
Seaside Groundwater Basin	1,474	774	774	774	774	774
Sand City Desalination	94	94	94	94	94	94
ASR	0	0	0	0	0	0
Pure Water Monterey	3,500	3,500	3,500	3,500	3,500	3,500
Pure Water Monterey Expansion[1]	0	0 - 1,100	0 - 1,100	0 - 1,100	0 - 1,100	0 - 1,100
Pure Water Monterey Reserves	0	0 - 775	0 - 775	0 - 775	0 - 775	0 - 775
MPWSP Ocean Desalination	0	5,372	6,252	6,252	6,252	6,252
Low Range Total Water Supply, AFY	**8,444**	**13,116**	**13,996**	**13,996**	**13,996**	**13,996**
Operation Buffer (10%)[2]	-844	-774	-774	-774	-774	-774
Surplus/ Shortfall	**-2,370**	**522**	**452**	**-118**	**-688**	**-1,258**
High Range Total Water Supply, AFY	**8,444**	**14,991**	**15,871**	**15,871**	**15,871**	**15,871**
Operation Buffer (10%)[2]	-844	-962	-962	-962	-962	--962
Surplus/ Shortfall	**-2,370**	**2,209**	**2,139**	**1,569**	**999**	**429**

Source: Water Supply Assessment, California American Water Company (Cal-Am), 2023, Appendix I

Note:

1. When the MPWSP Desalination Plant comes online, it will provide a drought-proof supply that will allow water demands to increase to the projected levels and wastewater flows to increase, which provides more source water for the PWM and PWM Expansion Project and improves both projects supply reliability. This excess supply is only available in dry years if the MPWSP is operational.
2. The operational buffer has not been applied to the MPWSP Ocean Desalination supply, which, given its source water, is drought-proof.

Table 3.14-5 MCWD Water Demand Projections by Jurisdiction (AFY)

Jurisdiction	*2020*	*2025*	*2030*	*2035*	*2040*	*Allocation*
Ord						
U.S. Army	409	461	471	471	471	1,577
CSUMB[1]	318	421	616	821	977	1,035
Del Rey Oaks	0	31	224	238	238	243
City of Monterey	0	0	130	130	130	65
County of Monterey	227	436	436	522	522	720
UCMBEST	1	116	335	377	408	230
City of Seaside	339	839	1,032	1,435	1,698	1,012
State Parks and Rec.	0	7	9	9	9	45
Marina Ord Comm.	446	1,125	1,638	1,757	1,809	1,325
Assumed Line Loss	190	348	348	348	348	348
Subtotal	**1,929**	**3,784**	**5,239**	**6,108**	**6,610**	**6,660**
Marina						
Armstrong Ranch	0	550	680	680	680	920
CEMEX[2]	0	0	0	0	0	500
Marina Central	1,438	1,656	1,874	2,081	2,284	3,020
Subtotal	**1,438**	**2,207**	**2,553**	**2,761**	**2,964**	**4,440**
TOTAL	**3,367**	**5,991**	**7,792**	**8,869**	**9,574**	**11,040**

Notes

1. CSUMB Campus closed for most of 2020 due to COVID-19 restrictions, so the 2018 campus usage is assumed as the baseline demand.
2. The CEMEX property is outside the Marina Urban Growth Boundary, which was extended through the year 2040.

Source: Marina Coast Water District 2020 Urban Water Management Plan, June 2021.
https://mcwd.org/docs/engr_files/edfp/uwmp/MCWD_2020_UWMP_20210630.pdf

Further, the 2020 UWMP does not fully account for the RHNA allocations of the other communities served by MCWD, including the cities of Marina, Seaside, and Del Rey Oaks and unincorporated portions of Monterey County. Therefore, implementation of Mitigation Measure UTIL-1, which requires that all new construction and remodels comply with the Monterey Peninsula Water Management District Rule 142 Water Efficiency Standards and Mitigation Measure UTIL-2, involving actions to expand MCWD supply, is required. To meet additional future demands, the MCWD 2020 UWMP provides that reactivation of the MCWD pilot seawater desalination plant could potentially add 300 AFY of additional supply. Further, to provide additional water to meet future demand when it materializes, the MCWD 2020 UWMP states Phase 2 of the Pure Water Monterey Expansion Project is anticipated to deliver additional water to the Seaside Basin. However, while these additional sources of supply could delivery sufficient water to meet projected demand from the Proposed Plan, MCWD does not currently have a plan or funding in place to reactivate the pilot seawater desalination plant or procure additional supply from Phase

2 of the Pure Water Monterey Expansion Project. No other feasible sources of additional water supply have been identified. Therefore, this impact is considered significant and unavoidable.

Mitigation Measures

MM-UTIL-1: Water Efficiency Measures for New Development and Remodels. New development and remodels in the Planning Area shall be required as a condition of project approval to implement the Monterey Peninsula Water Management District's Rule 142 Water Efficiency Standards, as applicable, in order to minimize the use of water. For reference, Rule 142 Water Efficiency Standards are included in Appendix H to this Draft EIR.

MM-UTIL-2: Expand MCWD Sources of Supply. MCWD shall implement measures to increase sources of water supply, including reactivation of the pilot seawater desalination plant and Indirect Potable Reuse of advanced treated water from the Pure Water Monterey project. The measures shall be sufficient to generate an additional 199.2 AFY by 2030, as needed to support new development within the City of Monterey that will be served by MCWD.

Significance after Mitigation: Significant and Unavoidable

Impact 3.14-2 Development under the Proposed Plan would require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (*Significant and Unavoidable*)

A significant impact would occur if the Proposed Plan would require the relocation, construction, or expansion of regional or municipal utility infrastructure, the implementation of which would result in substantial adverse environmental effects.

Regional Facilities

In order to serve projected water demand within its service area, Cal-Am has plans to purchase additional water supply from the planned Pure Water Monterey Expansion Project and to augment its supplies through the proposed Monterey Peninsula Water Supply Project Ocean Desalination Plant, as described above. These projects are already planned and, according to the WSA prepared by Cal-Am for the Proposed Plan, with the additional supply anticipated to become available when these projects come online, Cal-Am would have adequate supply to serve demand from the Proposed Plan. Additionally, MCWD owns a pilot desalination plant which if reactivated could provide 300 AFY of additional water supply to meet additional demand within its service area, including additional demand from new development at Fort Ord as part of the Proposed Plan. Therefore, implementation of the Proposed Plan would not require the construction of new or the expansion of existing regional water facilities over and above existing and planned facilities. As such, associated impacts would be less than significant.

Wastewater from the Planning Area is treated at the M1W Regional Treatment Plant (RTP) in the City of Marina, as described above. The RTP has an existing capacity of up to 29.6 million gallons of wastewater per day (mgd) and currently treats an average of 18.5 mgd from over 250,000 community members and 10 member entities. The Proposed Plan would result in up to 5,800 new homes and 1,991 new jobs by 2031. Assuming an average wastewater flow of 150 gallons per day (gps) for residential projects, consistent with M1W's 2021 Wastewater Treatment Rate Update to 2017 Comprehensive Rate & Fee Study, and an average of 30 gpd per employee, consistent with the U.S. Environmental Protection Agency's general estimate of wastewater generation for office projects, the Proposed Plan would generate an additional 0.93 mgd of wastewater upon buildout in 2031, well within the existing excess capacity of the RTP.[13] Additionally, as described above, M1W is moving forward with plans to significantly increase anaerobic digestion capacity at the RTP by reviving an out-of-service anaerobic digester and installing state-of-the-art Anaergia digestion tank mixing technology. Once completed in late 2024, project will also substantially increase digester capacity and enhance operational performance and energy efficiency. Therefore, implementation of the Proposed Plan would not require the construction or expansion of RTP facilities.

While the majority of the Planning Area is served by existing power and telecommunications infrastructure, power and telecommunications lines would need to be extended to the 50-acre MPUSD site in the Highway 68 Plan area and to the Fort Ord/Ryan Ranch opportunity area with implementation of the Proposed Plan. However, pursuant to Mitigation Measure WF-2 described in Section 3.15 of this Draft EIR, the City will adopt an underground utility district applicable to areas within the Highway 68 Area Plan and the Fort Ord Reuse Area that are both adjacent to and within 1,000 linear feet of a Very High Fire Hazard Severity Zone designated by the California Department of Forestry and Fire Protection, and shall require that all new electrical poles, overhead wires, and associated overhead structures be installed underground in order to reduce wildfire risks and promote public safety. Implementation of this mitigation measure would reduce impacts associated with construction and expansion of power and telecommunications to a less than significant level.

City Facilities

As described above, the City of Monterey owns and operates a sewer system consisting of 99 miles of gravity sewer mains, 1.5 miles of force mains, seven lift stations, and over 2,300 manholes. Additionally, the City owns and operates a public storm drain system consisting of ten miles of pipelines and drainage channels that collect and convey runoff to Monterey Bay. As shown on Figures 3.14-2 and 3.14-3, existing municipal sewer and stormwater facilities serve the majority of the Planning Area.

In 2018, the City of Monterey prepared a Sewer System Management Plan Update that evaluated the capacity of the existing sewer system and identified sewer improvements that are necessary to achieve future capacity requirements. The 2018 Sewer System Management Plan did not identify the need for any trunk sewer capacity improvements at the time in the Planning Area, as the City sewerage system was not experiencing overflow conditions nor approaching such conditions even

[13] M1W, 2021 Wastewater Treatment Rate Update to 2017 Comprehensive Rate & Fee Study, accessed on Dec 26, 2023 at: https://www.montereyonewater.org/DocumentCenter/View/144/06-2021-Comprehensive-Rate-and-Fee-Study-PDF?bidId=

during wet weather per regular field observations by City maintenance crews. The Monterey City Code Chapter 30 requires that, when constructing a new structure on property with an existing lateral, changing the use of a structure that requires a building permit, connecting a previously unconnected structure to an existing lateral, or constructing a major building remodel project, the sanitary sewer lateral must be inspected for any defects and a completed sanitary sewer lateral inspection form submitted to the City. Individual development projects pursuant to the Proposed Plan would connect to existing sewer infrastructure, but the need for improvements to existing public sewer infrastructure in these areas is not anticipated.

Future developments within the Planning Area must meet the requirements of the Monterey Regional Storm Water Management Program (MRSWMP), City of Monterey NPDES Phase II permit with the California State Water Board, the City Code, and other applicable local, state and federal requirements, as more fully described in Section 3.9, Hydrology and Water Quality. Compliance with existing regulations would ensure that new development incorporates on-site methods to result in no net increase in drainage off-site compared to pre-project site hydrology, including through low impact development techniques that filter, store, evaporate, and detain runoff close to the source of rainfall and control the rate and/or volume of stormwater, allowing stormwater to naturally infiltrate soils. As such, the need for improvements to existing public storm drainage infrastructure in these areas is not anticipated. However, implementation of the Proposed Plan would also require the construction and extension of public sewer and stormwater conveyance infrastructure to areas not currently served by existing facilities, including the 50-acre MPUSD site in the Highway 68 Plan area and portions of Fort Ord. Construction or expansion of infrastructure to these areas could potentially result in environmental impacts. Construction period impacts are analyzed at a programmatic level throughout this Draft EIR. While construction period impacts related to soil erosion and noise can be mitigated to a less than significant level, construction period impacts related to air quality, biological resources, cultural and tribal cultural resources, energy and greenhouse gas emissions would remain significant and unavoidable even after implementation of all feasible mitigation measures.

Therefore, in conclusion, impacts associated with the relocation, construction, or expansion of regional utility infrastructure would be less than significant with mitigation incorporated; however, impacts associated with construction period impacts related to air quality, biological resources, cultural and tribal cultural resources, energy and greenhouse gas emissions would remain significant and unavoidable even after implementation of all feasible mitigation measures.

Mitigation Measures

MM-AQ-2: MBARD Basic Construction Mitigation Measures for Air Quality.

MM-AQ-3: Require at Least Tier 4 Final Engines on Construction Equipment.

MM-AQ-4: Require 2010 Model Year Compliance of Diesel Truck Engines.

MM-BIO-1: Conduct Preconstruction Surveys for Special Status Species.

MM-BIO-2: Worker Environmental Awareness Training Program.

MM-CUL-4: Conduct Cultural Resources Awareness Training.

MM-GHG-2: Construction Best Management Practices to Minimize GHGs.

Significance after mitigation: Significant and unavoidable.

Impact 3.14-3 Development under the Proposed Plan would not result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. (*Less than Significant*)

As described above, wastewater from the Planning Area is treated at the M1W Regional Treatment Plant (RTP) in the City of Marina. The RTP has an existing capacity of up to 29.6 million gallons of wastewater per day (mgd) and currently treats an average of 18.5 mgd, including effluent from the Planning Area. The Proposed Plan would result in up to 5,800 new homes and 1,991 new jobs by 2031. Assuming an average wastewater flow of 150 gallons per day (gps) for residential projects, consistent with M1W's 2021 Wastewater Treatment Rate Update to 2017 Comprehensive Rate & Fee Study, and an average of 30 gpd per employee, consistent with the U.S. Environmental Protection Agency's general estimate of wastewater generation for office projects, the Proposed Plan would generate an additional 0.93 mgd of wastewater upon buildout in 2031, well within the existing excess capacity of the RTP. Additionally, as described above, M1W is moving forward with plans to significantly increase anaerobic digestion capacity at the RTP by reviving an out-of-service anaerobic digester and installing state-of-the-art Anaergia digestion tank mixing technology. Once completed in late 2024, project will also substantially increase digester capacity and enhance operational performance and energy efficiency. Therefore, implementation of the Proposed Plan would not require the construction or expansion of RTP facilities and associated impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.14-4 Development under the Proposed Plan would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. (*Less than Significant)*

Construction

A significant impact would occur if development under the Proposed Plan generates 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. Demolition and construction activities associated with implementation of the Proposed Plan would result in a temporary increase in solid waste generation. Solid waste generation would occur periodically during construction. However, the increase would be minimal and temporary. In addition, individual projects within the Planning Area would be required to comply with the State's Green Building Code, which requires all permitted residential and non-residential construction demolition and additions/alternations projects to recycle of salvage a minimum 65 percent of nonhazardous construction materials generated from the project. Therefore, the Proposed Plan would not generate solid waste in excess

of State or local standards or in excess of the capacity of local infrastructure during construction. This impact would be less than significant.

Operation

Solid waste from Monterey is primarily sorted at the Monterey Peninsula Landfill (MPL) and Materials Recovery Facility (MRF) in unincorporated Salinas, operated by ReGen Monterey and any waste not recycled or composted is disposed. ReGen Monterey also processes commercial and residential organics at the MPL and MRF. As shown below in Table 3.14-2, Monterey has disposed between 36,341and 40,991 tons of solid waste during the five-year period between 2017 and 2021. These volumes account for all waste generated by all sources within the city, including both residential, commercial, and industrial waste. Using these reported volumes of solid waste, and the population of Monterey during each of these years, a per capita solid waste disposal rate was calculated for Monterey. As shown in the table, the average per capita solid waste disposal rate in Monterey, in recent years, is approximately 7.4 tons per year per person. As discussed in Chapter 2: Project Description, implementation of the Proposed Plan and pipeline projects would increase the Planning Area's population by 10,125 residents compared to existing conditions. Thus, the Proposed Plan would result in a net increase in solid waste generation of approximately 74,925 tons per year, or 205.27 tons per day.

Table 3.14-6: Annual Solid Waste Disposal Per Capita (Monterey)

Report Year	*Solid Waste Disposal Originating from Monterey (annual tons)*	*Population*	*Solid Waste Disposal Per Capita (annual tons)*
2017	36,341.43	28,672.00	6.90
2018	39,143.40	28,412.00	7.50
2019	38,802.60	28,473.00	7.50
2020	40,991.71	28,448.00	7.90
2021	38,355.16	28,304.00	7.40

Source: CalRecycle, 2021. Available: https://www2.calrecycle.ca.gov/LGCentral/Home/slcp/capacityplanning/recycling. Accessed: October 2, 2023.

The permitted remaining capacity of the Monterey Peninsula Landfill is 48.5 million tons, as reported by CalRecycle, while the permitted capacity of the Monterey Peninsula Landfill is 3,500 tons per day. Thus, the annual solid waste generated by the Proposed Plan would be approximately 0.155 percent of the permitted remaining capacity of the landfill and the daily solid waste generated by the Proposed Plan would be approximately 5.9 percent of the permitted daily capacity of the landfill. While non-residential development would also generate solid waste, overall the Proposed Plan would not be a substantial contributor to the City's solid waste at the Monterey Peninsula Landfill.

Further, businesses and residences within the Planning Area would be required to recycle materials that are recyclable, per Chapter 14, Article 1, of the Monterey City Code. City Code requires businesses generating four or more cubic yards of solid waste per week and all multi-family property owners (five units or more) to obtain a level of recycling service adequate for the amount of recyclables they generate. This regulation builds upon a California law, AB 341, which requires the commercial and multi-family accounts to either subscribe to recycling services, self-haul, or

arrange for periodic pick-up of recyclables. Development projects under the Proposed Plan would be required to comply with State and local laws mandating recycling of recyclable materials. There would still be residual waste requiring landfill disposal, but the incremental increase in solid waste sent to the Monterey Peninsula Landfill would have an imperceptible effect on landfill capacity. Therefore, implementation of the Proposed Plan would not generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure during operation, and this impact would be less than significant.

Mitigation Measures

None required.

Impact 3.14-5 Development under the Proposed Plan would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. (*Less than Significant)*

A significant impact would occur if development under the Proposed Plan would violate any federal, State, or local statues or regulations related to solid waste. As described under the Physical Setting section, waste collection services in the Planning Area are provided by Monterey City Disposal Service. Monterey City Disposal Service collects and transports solid waste, including trash, recyclables, and organic materials. Hazardous and e-waste is managed by the Household Hazardous Waste Collection program at ReGen Monterey, which operates household hazardous and electronic waste disposal drop-off facilities in Marina.

Federal, State, and local statutes and regulations related to solid waste include AB 939, AB 1327, SB 1016, AB 341, and AB 1826, as well as the Monterey City Code, Chapter 14, Article 1, which requires multifamily properties with five or more units and certain businesses to provide on-site recycling and composting services. Projects pursuant to the Proposed Plan would be subject to policies in the City General Plan aimed at continuing to implement cost-effective and incentive-based recycling programs and education for items such as yard waste, vehicle oil, food containers, cardboard, and mixed paper to divert waste generated by residential and commercial customers. Further, any development of future land uses under the Proposed Plan would be required to comply with federal, State, and local statutes and regulations related to solid waste. Therefore, the impact would be less than significant.

Mitigation Measures

None required.

3.15 Wildfire

This section describes the environmental and regulatory setting for wildfires. It also describes events related to wildfires that have already occurred in the Planning Area and that could occur during implementation of the Proposed Plan. A wildland fire is a fire in which the primary fuel is natural vegetation and can consume thousands of acres of vegetation, timber and agricultural lands, as well as developed properties located in or adjacent to susceptible areas. Wildfires can be caused by human actions as well as natural events, such as lightning or high winds.

There were two responses to the Notice of Preparation (NOP) regarding topics covered in this section. The California Department of Transportation (Caltrans) requested that the EIR address climate change's impact on the State Highway System (SHS) and local roadways, given the forecasted regional increase in wildfires. An additional commenter was interested in the status of the emergency preparedness plan for Monterey and the County. These comments are addressed under Impact 3.15-1 to the extent they relate to the environmental analysis required under CEQA.

Environmental Setting

PHYSICAL SETTING

A wildland fire is a fire in which the primary fuel is natural vegetation. Wildfires can consume thousands of acres of vegetation, timber, and agricultural lands, as well as developed properties located in or adjacent to susceptible areas. Wildfires can be caused by natural events, such as lightning or high winds. Most wildfires in the country are human caused (89 percent on average from 2017 to 2021), although the wildfires caused by lightning tend to be slightly larger and burn more acreage (52 percent of the average acreage burned from 2017 to 2021 was ignited by lightning).[1]

Monterey County is a region with a long history of wildland fires. Along the coastline, wildfires are typically kept at bay by the regular fog that keeps land surfaces relatively moist. However, above the fog bank, inland land surfaces are dry and more susceptible to wildfires particularly during the months of August, September, and October. Warmer and drier offshore wind flow regimes, which occur several times each year, produce conditions in the region that are associated with "Severe Fire

[1] Congressional Research Service. November 2022. Wildfire Statistics. Available: https://sgp.fas.org/crs/misc/IF10244.pdf.

Weather" and "Red Flag" fire warnings.[2] These warm winds lower the relative humidity of the area and dry out vegetation, and under these wind regimes California typically experiences its largest and most destructive fires.[3] Recent research indicates that higher average summer temperatures will likely increase the area burned and fire severity in California, particularly in Northern California. Future changes in fire frequency and severity are difficult to predict; however, regional climate change associated with elevated greenhouse gas concentrations could alter large weather patterns and produce conditions conducive to extreme fire behavior. A warmer climate will bring drier winters, higher spring temperatures, and early snowmelt. Combined with drought conditions, this leads to drier soils in early summer, drier vegetation, and an increase in the number of days in the year with flammable fuels, all which further raise the likelihood and severity of fires throughout the year.[4]

Wildland Urban Interface (WUI) Zones

The Wildland Urban Interface (WUI) is the transition zone between areas of native vegetation and developed areas. Approximately 3,570 acres – 64 percent of the County's land area – falls within the wildland urban interface (WUI) where residences (i.e., homes and structures) are adjacent to or intermixed with open space and wildland vegetation.[5] Figure 3.15-1 shows the WUI areas in Monterey; roughly all the south and southwest portions of the city fall entirely within a WUI area. The term "WUI" is not a designation of potential wildfire severity but a defined description of an area where urban development meets undeveloped lands at risk of wildfires. Because of the mix and density of structures with natural fuels in close proximity to each other, combined with more limited access and egress routes, fire management is more complex in WUI environments.

In Monterey County, homes and property in the WUI are likely areas of concern for future fires. The mountainous, highly combustible areas in and around the Los Padres National Forest are very susceptible to wildland fires. The communities along the Big Sur coast, including Big Sur, Post, Lucia, Gorda, and Plaskett, are also at great risk to wildland fires. Of the about 35,000 housing units in the county located in the WUI, 38 percent are in an intermix zone, which is dense urban development adjacent to wildland, and 62 percent are in an interface zone, which is sparse development interspersed within a landscape that maintains much of the wildland characteristics. Interface zones typically have a definable boundary between houses and wildland to provide a line

[2] County of Monterey. March 2022. County of Monterey Multi-Jurisdictional Hazard Mitigation Plan. Available: https://www.co.monterey.ca.us/government/departments-a-h/administrative-office/office-of-emergency-services/hazard-mitigation/2022-mjhmp.

[4] Westerling A.L. August 2018. Wildfire Simulations for California's Fourth Climate Change Assessment: Projecting Changes in Extreme Wildfire Events with a Warming Climate. Available: https://www.energy.ca.gov/sites/default/files/2019-11/Projections_CCCA4-CEC-2018-014_ADA.pdf..

[4] Westerling A.L. August 2018. Wildfire Simulations for California's Fourth Climate Change Assessment: Projecting Changes in Extreme Wildfire Events with a Warming Climate. Available: https://www.energy.ca.gov/sites/default/files/2019-11/Projections_CCCA4-CEC-2018-014_ADA.pdf..

[5] CAL FIRE. 2019. Wildland Urban Interface (WUI). Available: https://www.fire.ca.gov/what-we-do/fire-resource-assessment-program.

of defense and focus mitigation efforts along this boundary while intermix zones often require fire agencies to devote resources to protect individual houses.[6]

A number of agencies in the County are involved in various fuel reduction activities to minimize wildfire risk in WUI areas. A variety of strategies and projects have been deployed in an effort to reduce the threat of wildfires. CALFIRE San Benito-Monterey Unit (BEU) administers a Vegetation Management Program. The purpose of the program is to reintroduce fire to the landscape, restoring aspects of historic fire regimes, and to reduce flammable vegetation that may contribute to large, damaging wildfires and high fire suppression costs. The Vegetation Management Program is a cost-sharing program that focuses on the use of prescribed fire and mechanical means for addressing wildland fire fuel hazards and other resource management issues on State Responsibility Area (SRA) lands. The program allows private landowners to enter into a contract with CAL FIRE to use prescribed fire to accomplish a combination of fire protection and resource management goals. CAL FIRE also manages some significant shaded fuel break projects at strategic, high-risk locations.[7]

Local fire agencies conduct property inspections for defensible space, implement community projects, and share public information on wildfire risk. The City of Monterey Fire Department conducts annual Defensible Space Inspections of all residential parcels in its response area, which includes the cities of Monterey, Pacific Grove, Carmel-by-the-Sea, and Sand City, as well as the Monterey Regional Airport. In 2020, Monterey Fire collaborated with the City to develop a collector app using GIS technology. The app allows fire crews to conduct inspections and record if a parcel is compliant with defensible space requirements. The results of the inspection are immediately visible online in a public facing portal. As follow-up inspections are completed, the information can be quickly updated. Staff can immediately see which parcels need follow-up and the completion rate.[8]

Slope and Aspect

According to CAL FIRE, sloping land increases susceptibility to wildfire because fire typically burns faster up steep slopes and they may hinder firefighting efforts.[9] Following severe wildfires, sloping land is also more susceptible to landslide or flooding from increased runoff during substantial precipitation events. Aspect is the direction that a slope faces, and it determines how much radiated heat the slope will receive from the sun. Slopes facing south to southwest will receive the most solar radiation; thus, they are warmer and the vegetation drier than on slopes facing a northerly to

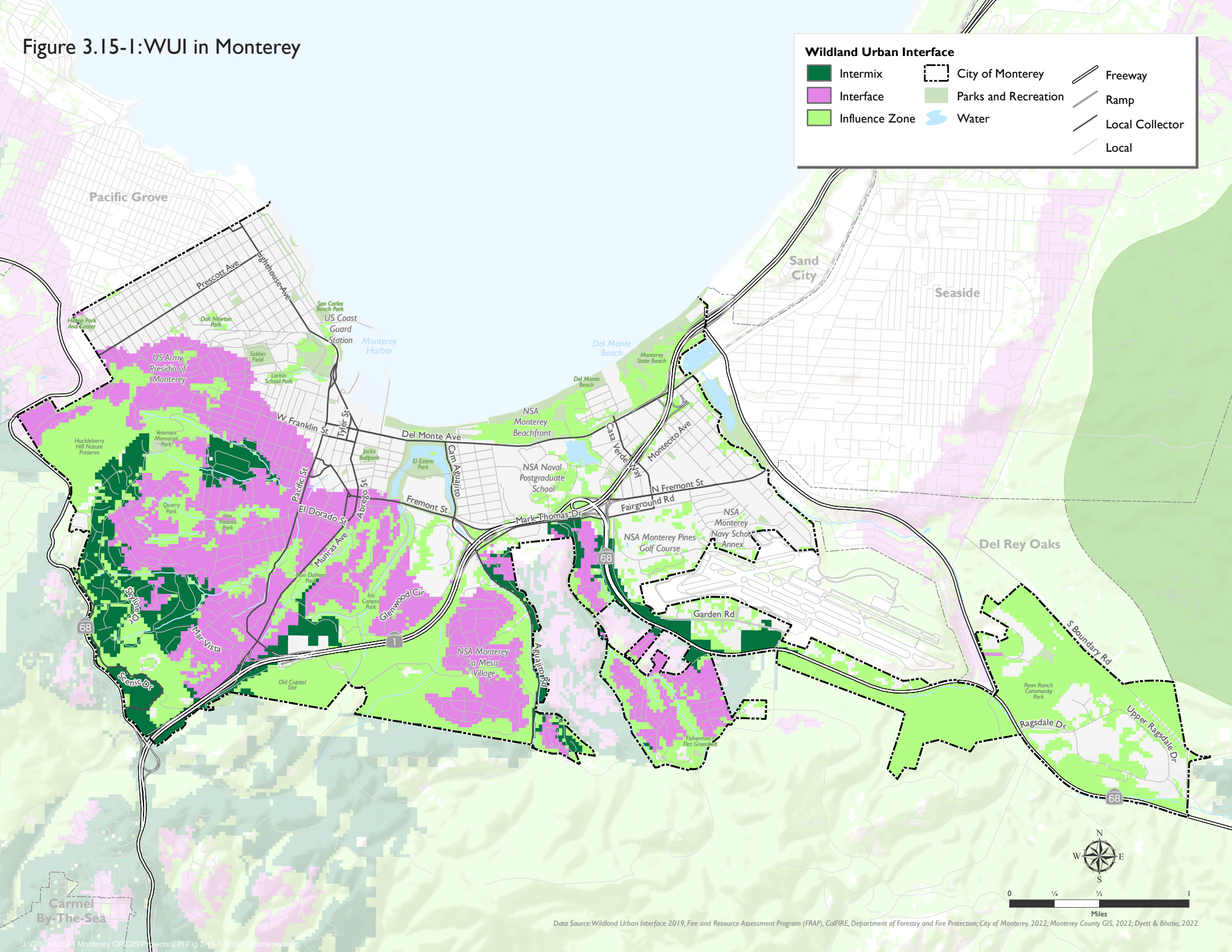
[6] Monterey Fire Safe Council. March 2016. Monterey County Community Wildfire Protection Plan. Available: http://www.firesafemonterey.org/uploads/1/0/6/5/10653434/mccwpp_november_2010_v2_signed_updated_appx-d_6-3-2019.pdf.

[7] County of Monterey. March 2022. County of Monterey Multi-Jurisdictional Hazard Mitigation Plan. Available: https://www.co.monterey.ca.us/government/departments-a-h/administrative-office/office-of-emergency-services/hazard-mitigation/2022-mjhmp.

[8] Ibid.

[9] CAL FIRE 2007b.

Figure 3.15-1: WUI in Monterey



Data Source: Wildland Urban Interface 2019, Fire and Resource Assessment Program (FRAP), CalFIRE, Department of Forestry and Fire Protection; City of Monterey, 2022; Monterey County GIS, 2022; Dyett & Bhatia, 2022.

J:\GIS\Data\584 Monterey GP\GIS\Projects\EIR\Fig 3-15-1 WUI in Monterey.mxd

northeasterly direction, increasing the potential for wildfire ignition and spread.[10]

The topography of Monterey County is extremely variable. Within the Salinas Valley, slopes are relatively flat across the valley floor (0-10 percent). Elevations in this region range from sea level, where the valley meets the Pacific Ocean in the north, up to nearly 400 feet above mean sea level (AMSL) in the southern portions of the valley. More significant topographic variation is found in the eastern and western portions of the County, often characterized by steep slopes, deeply incised canyons, and narrow valleys. The elevation within Monterey County ranges from sea level to over 5,800 feet AMSL. Slope measurements reach up to 175 percent gradients, most notably in the Los Padres National Forest (LPNF) located in the western portion of the county and the Gabilan Range located along the eastern county boundary.[11]

These slope changes can make fighting fires extremely difficult.[12] Within the City of Monterey, topography and slope is quite variable. Lands along the margin on Monterey Bay tend to be relatively flat but sloped towards the bay. The northern terminus of the Santa Lucia Mountains is the major regional landform that forms the backdrop to the city. Due to slope and access constraints, development within this area tends to be less dense. Steep slopes within the Planning Area tend to be located along stream channels and within the hillside areas.[13]

Historical Wildfires

Fire history is an important component in understanding fire frequency, fire type, significant ignition sources, and vulnerable areas. The history of wildfires in the county is significant. Since 1911, there has been an average of four wildfires a year, with an average of 17,000 acres burning annually. The Marble-Cone Fire in August 1977 burned almost 178,000 acres of land, making it the largest wildfire in recorded California history at that time. Since the Marble-Cone Fire, Monterey County has had over 50 large wildfires.[14] In more recent years the frequency, intensity, and impact of large wildland fires in Monterey County have increased, specifically in the Los Padres National Forest. The Basin Complex Fire, a massive wildfire near Big Sur in 2008, burned more than 162,000 acres, destroyed 58 structures, and damaged an additional nine structures. This fire burned the majority of the Ventana Wilderness. State and federal officials spent more than $120 million to fight the fire, making it the most expensive fire in California history up to that time, and the second most expensive in US history. The Indians Fire during this same event period burned an additional

[10] Anthony Leroy Westerling, UC Merced. August 2018. Wildfire Simulations for California's Fourth Climate Change Assessment: Projecting Changes in Extreme Wildfire Events with a Warming Climate. Available: https://www.energy.ca.gov/sites/default/files/2019-11/Projections_CCCA4-CEC-2018-014_ADA.pdf. Accessed : July 19, 2022.

[11] Monterey Fire Safe Council. March 2016. Monterey County Community Wildfire Protection Plan. Available: http://www.firesafemonterey.org/uploads/1/0/6/5/10653434/mccwpp_november_2010_v2_signed_updated_appx-d_6-3-2019.pdf.

[12] Ibid.

[13] City of Monterey. July 2004. Draft EIR City of Monterey General Plan Update. Available: https://monterey.org/city_hall/community_development/planning/land_use_plans.php.

[14] County of Monterey. March 2022. County of Monterey Multi-Jurisdictional Hazard Mitigation Plan. Available: https://www.co.monterey.ca.us/government/departments-a-h/administrative-office/office-of-emergency-services/hazard-mitigation/2022-mjhmp.

81,000 acres, leaving 15 structures destroyed and one damaged. These combined events made 2008 the most destructive year in recorded history for fires in Monterey County.[15]

In December 2013, the Pfeiffer Fire burned 917 acres near Big Sur and damaged or destroyed 38 structures, including 34 residential structures and 4 outbuildings. On July 22, 2016, the Soberanes Fire began as an illegal campfire located in Garrapata State Park in Monterey County. Fed by winds and dry, unmanaged vegetation resulting from several years of extreme drought, the fire quickly spread beyond the park to threaten lives, homes, property, and the environment. It was the costliest firefight in US history, costing a total of $260 million. 2020 was another record year for fires in Monterey County, with the River, Carmel, and Dolan fires burning 48,000, 6,905, and 124,924 acres, respectively. The most known causes of fires in Monterey County since the year 2000, are powerlines (19 percent), other mechanical or electrical equipment (16 percent), vehicles (13 percent), miscellaneous (12 percent), and arson (seven percent). Sometimes the cause of a fire cannot be determined, and this represents another large category, with 11 percent of fires in the County having an unknown cause.[16]

Wildfire Hazards

Primary responsibility for preventing and suppressing wildland fires in Monterey County is divided between local firefighting agencies and the State of California, Department of Forestry and Fire Protection (CAL FIRE). In State Responsibility Areas (SRAs), which are defined according to land ownership, population density, and land use, CAL FIRE has a legal responsibility to provide fire protection. CAL FIRE is not responsible for densely populated areas, incorporated cities, agricultural lands, or federal lands. Local Responsibility Areas (LRAs) include incorporated cities and cultivated agriculture lands. In LRAs, fire protection is provided by local fire departments, fire protection districts, counties, or by CAL FIRE under contract to local government. The City of Monterey is currently located in an area identified as a Local Responsibility Area (LRA), which is serviced by the Monterey Fire Department.

Government Code Sections 51175-89 advise CAL FIRE to identify areas, or zones, of very high fire hazard severity potential under the Fire and Resources Assessment Program (FRAP). These zones are mapped and identified based on expected burn probabilities, potential fuels over a 30-to-50-year time period, and their correlated expected fire behavior, to better predict the possible vegetation fire exposure to buildings and developments. Under the FRAP, CAL FIRE categorizes upland areas in the south and southwest of the city as a Very High Fire Hazard Severity Zone. Just south of the City limits, a Very High Fire Hazard Severity Zone in an SRA exists (Figure 3.15-2).

REGULATORY SETTING

Federal

The Disaster Mitigation Act of 2000 Senate Bill 743

The Disaster Mitigation Act of 2000 requires a state-level mitigation plan as a condition of disaster assistance. There are two different levels of state disaster plans: "Standard" and "Enhanced." States

[15] Ibid.

[16] Ibid.

that develop an approved Enhanced State Plan can increase the amount of funding available through the Hazard Mitigation Grant Program. The Act also established new requirements for local mitigation plans.

National Fire Plan

The National Fire Plan was developed in August 2000, following a historic wildfire season. Its intent is to establish plans for active response to severe wildfires and their impacts on communities while ensuring sufficient firefighting capacity. The plan addresses firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability.

State

California Office of Emergency Services (OES)

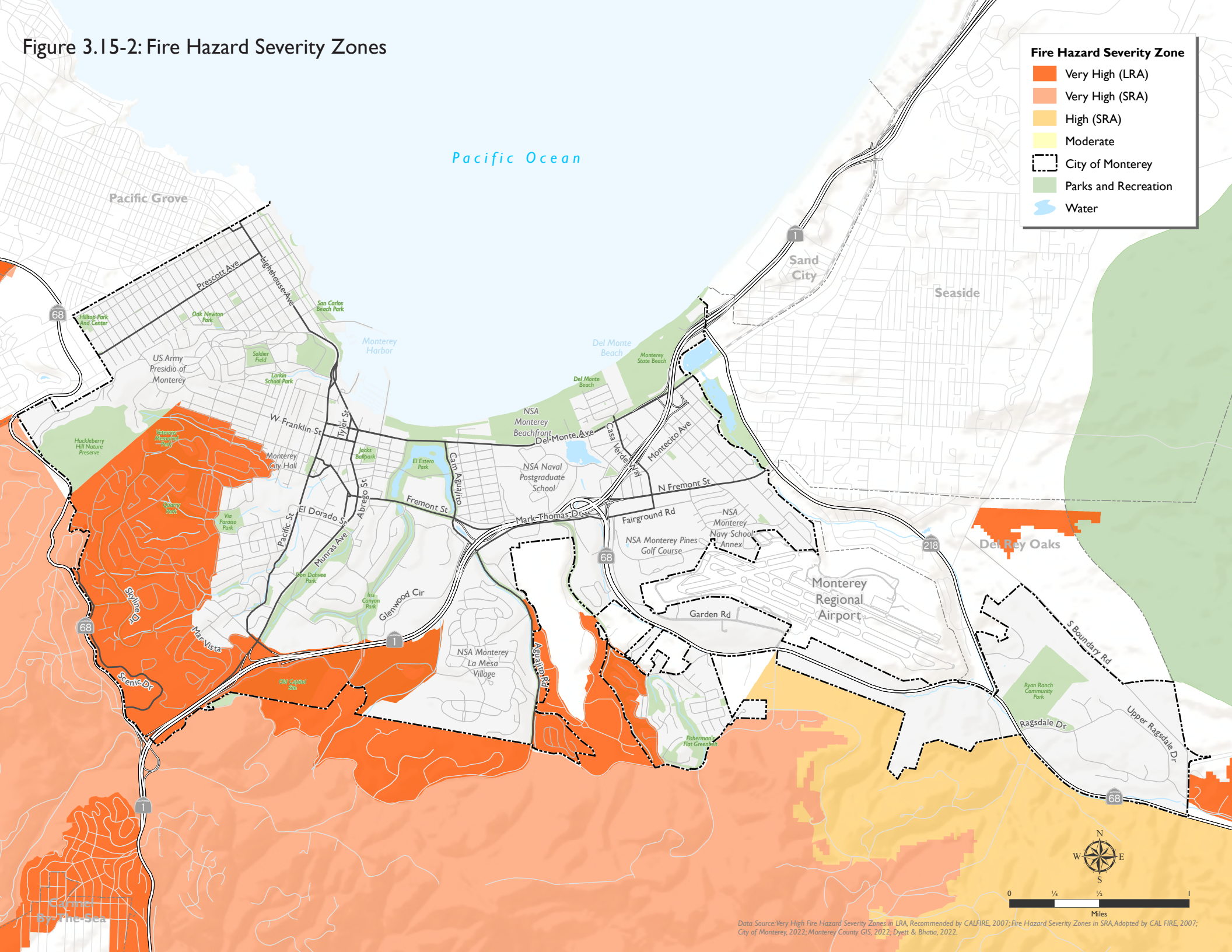
Under the California Emergency Services Act, the State developed an emergency response plan to coordinate emergency services provided by all governmental agencies. The plan is administered by the California Office of Emergency Services (OES). OES coordinates the responses of other agencies, including EPA, the Federal Emergency Management Agency (FEMA), the California Highway Patrol (CHP), regional water quality control boards, air quality management districts, and county disaster response offices. Local emergency response teams, including fire, police, and sheriff's departments, provide most of the services to protect public health.

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 for the State to receive Federal funding. The Disaster Mitigation Act of 2000 requires a state mitigation plan as a condition of disaster assistance.

California Public Resources Code – State Responsibility Area

The California Public Resources Code (PRC) requires the designation of State Responsibility Areas (SRAs), which are identified based on cover, beneficial water uses, probable erosion damage, and fire risks and hazards. The financial responsibility of preventing and suppressing fires in an SRA is primarily the responsibility of the state. Fire protection in areas outside SRAs are the responsibilities of local or federal jurisdictions and are referred to as local responsibility areas and federal responsibility areas, respectively.

Figure 3.15-2: Fire Hazard Severity Zones



Data Source: Very High Fire Hazard Severity Zones in LRA, Recommended by CALFIRE, 2007; Fire Hazard Severity Zones in SRA, Adopted by CAL FIRE, 2007; City of Monterey, 2022; Monterey County GIS, 2022; Dyett & Bhatia, 2022.

California Public Resources Code Sections 4201–4204

This portion of the PRC, most recently amended by AB 9 in 2021, requires the State Fire Marshal to classify Fire Hazard Severity Zones within SRAs. Lands within SRAs are classified in accordance with the severity of fire hazard present to identify measures to be used to retard the rate of spreading and reduce the potential intensity of uncontrolled fires that threaten to destroy resources, life, or property.

Very High Fire Hazard Severity Zones (VHFHSZ)

Government Code Section 51178 requires CAL FIRE to identify Very High Fire Hazard Severity Zones in the state. Very High Fire Hazard Severity Zones shall be based on fuel loading, slope, fire weather, and other relevant factors including areas where Santa Ana, Mono, and Diablo winds have been identified by CAL FIRE as a major cause of wildfire spread. Government Code Section 51179 requires a local agency to designate, by ordinance, Very High Fire Hazard Severity Zones in its jurisdiction. As shown on Figure 3.15-2, there are Very High Fire Hazard Severity Zones in the south and southwest of the Planning Area.

California Board of Forestry

The Board of Forestry maintains fire safe road regulations, as part of Title 14 of the California Code of Regulations (CCR). This includes requirements for road width, surface treatments, grade, radius, turnarounds, turnouts, structures, driveways, and gate entrances. These regulations are intended to ensure safe access for emergency wildland fire equipment and civilian evacuation.

California Fire and Building Codes (2019)

The California Fire Code is Chapter 9 of CCR Title 24. It establishes the minimum requirements consistent with nationally recognized good practices to safeguard public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structure, and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations. It is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The California Fire Code regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The California Fire Code and the California Building Code (CBC) use a hazard classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines and specialized equipment. To ensure that these safety measures are met, the California Fire Code employs a permit system based on hazard classification. 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 California.

More specifically, the Fire Code is included in Title 24 of the CCR. Title 24, part 9, Chapter 7 addresses fire-resistances-rated construction; CBC (Part 2), Chapter 7A addresses materials and construction methods for exterior wildfire exposure; Fire Code Chapter 8 addresses fire related Interior finishes; 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. These requirements establish minimum standards to protect buildings located in Fire Hazard Severity Zones (FHSZs) within SRAs and Wildland-Urban Interface (WUI) Fire Areas. This code includes provisions for ignition-resistant construction standards for new buildings.

Wildland-Urban Interface Building Standards

On September 20, 2007, the Building Standards Commission approved the Office of the State Fire Marshal's emergency regulations amending the CCR Title 24, Part 2, known as the 2007 CBC. These codes include provisions for ignition-resistant construction standards in the WUI.

- Interface zones are areas with dense housing adjacent to vegetation that can burn and meeting the following criteria:
- Housing density class 2 (one house per 20 acres to one house per 5 acres), 3 (more than one house per 5 acres to one house per acre), or 4 (more than one house per acre)
- In Moderate, High, or Very High Fire Hazard Severity Zone
- Not dominated by wildland vegetation (i.e., lifeform not herbaceous, hardwood, conifer, or shrub)
- Spatially contiguous groups of 30-meter cells[17] that are 10 acres and larger.

Intermix zones are housing development interspersed in an area dominated by wildland vegetation and must meet the following criteria:

- Not interface
- Housing density class 2
- Housing density class 3 or 4, dominated by wildland vegetation
- In Moderate, High, or Very High Fire Hazard Severity Zone
- Improved parcels only
- Spatially contiguous groups of 30-meter cells 25 acres and larger

Influence zones have wildfire-susceptible vegetation up to 1.5 miles from an interface zone or intermix zone.[18]

The California Fire Plan

The Strategic Fire Plan for California is the State's roadmap 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 revise and update its locally-specific Fire Management Plan. These plans assess the fire situation within each of the 21 CAL FIRE units and six contract counties. These plans address wildfire protection areas, initial attack success, assets and infrastructure at risk, pre-fire management strategies, and accountability within their geographical boundaries.

[17] Note that "30-meter cells" refers to raster data, and indicates data is presented as 30-meter by 30-meter squares.

[18] CAL FIRE 2019b.

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.

The "California Emergency Services Act," in Section 8568 of the California Government Code, 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 authority for conducting emergency operations following the proclamations of emergencies by the Governor or appropriate local authority, such as a City Manager or County Administrator. 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.

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. The SEMS incorporates the functions and principles of the Incident Command System (ICS), the Master Mutual Aid Agreement, 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. OES divides the state into several mutual aid regions. The City of Monterey is located in Mutual Aid 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.

Government Code Sections 65302 and 65302.5, Senate Bill 1241 (Kehoe) of 2012

Senate Bill (SB) 1241 requires cities and counties to address fire risk in SRAs and Very High FHSZs in the safety element of their general plans. The bill also amended CEQA to direct amendments to the CEQA Guidelines Appendix G environmental checklist to include questions related to fire hazard impacts for projects located in or near lands classified as SRAs and Very High FHSZs. 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.[19]

California Public Utilities Commission General Order 166

General Order 166 Standard 1.E requires that investor-owned utilities (IOU) develop a Fire Prevention Plan which describes measures that the electric utility will implement to mitigate the threat of power-line fires generally. Additionally, this standard requires that IOUs outline a plan to mitigate power line fires when wind conditions exceed the structural de-sign standards of the line during a Red Flag Warning in a high fire threat area. Fire Prevention Plans created by IOUs are required to identify specific parts of the utility's service territory where the conditions described above may occur simultaneously. Standard 11 requires that utilities report annually to the California Public Utilities Commission (CPUC) regarding compliance with General Order 166. In compliance with Standard 1.E of this General Order, Pacific Gas and Electric Company (PG&E) adopted a 2022 Wildfire Mitigation Plan Update dated February 25, 2022. PG&E developed a High Fire Risk Area (HFRA) map that designates steeper areas of Monterey as a Tier 2 High Fire Threat Districts (HFTD). Tier 2 and Tier 3 HFTDs are intended to identify areas where stricter fire-safety regulations are to be applied from wildfires associated with overhead utility power lines and overhead utility power-line facilities.

Regional

Monterey, Carmel-by-the-Sea, and Pacific Grove Community Wildfire Protection Plan (CWPP)

The Community Wildfire Protection Plan (CWPP) for the Cities of Monterey, Carmel-by-the-Sea, and Pacific Grove serves as a fire protection planning document that presents the community's physical characteristics, wildfire hazard, assets at risk from wildfire, wildfire risk reduction approaches, vegetation/fuel management projects, and goals and action items intended to reduce wildfire risk in the Plan Area. The CWPP was published in November 2023 and was developed by the Monterey Fire Department (MFD), in coordination with the Cities of Monterey, Carmel-by-the-Sea, and Pacific Grove, with input and direction from interested parties, agency representatives, and community members. The purpose of the Monterey, Carmel-by-the-Sea, and Pacific Grove CWPP is to reduce the severity and impact of wildfires and increase community resilience.

Monterey County Community Wildfire Protection Plan (CWPP)

The Monterey County Community Wildfire Protection Plan (CWPP) provides a science-based assessment of wildfire hazards and threats to homes in the wildland urban interface (WUI) of Monterey County, California. The Monterey County CWPP was published in 2010 and updated in 2023. This Monterey County CWPP was developed through a collaborative process involving the Monterey Fire Safe Council (MFSC), with input from (CAL FIRE), the United States Forest Service (USFS), the Bureau of Land Management (BLM) and other stakeholders, including community members, forest and rangeland property owners, local fire agencies within State Responsibility Area (SRA), and other interested parties. The purpose of the Monterey County CWPP is to provide fire agencies, land managers, and other stakeholders in Monterey County with guidance and strategies

[19] "Leapfrog development" describes the construction of new development at a distance from existing developed areas, with undeveloped land between the existing and new development.

to reduce fire hazard and the risk of catastrophic wildfires in the WUI, while promoting the protection and enhancement of the county's economic assets and ecological resources. [20]

Monterey County Multi-Jurisdiction Hazard Mitigation Plan (MJHMP)

The 2022 Monterey County Multi-Jurisdiction Hazard Mitigation Plan (MJHMP) defines measures to reduce risks from natural disasters in the Monterey County Operational Area, which consists of the entire county, including unincorporated areas, incorporated cities, and special purpose districts. The plan complies with federal and State hazard mitigation planning requirements to establish eligibility for funding under Federal Emergency Management Agency (FEMA) grant programs for all planning partners.[21]

County of Monterey Operational Area Emergency Operations Plan (EOP)

The 2020 County's Emergency Operations Plan is a guidebook for the Monterey County Operational Area (OA) to utilize during phases of an all-hazards emergency management process which include preparedness, response, recovery, and mitigation. The EOP is intended to facilitate coordination between agencies and jurisdictions within Monterey County while ensuring the protection of life, property, and the environment during disasters. In accordance with California's Standardized Emergency Management System (SEMS), this Plan provides the framework for a coordinated effort between partners and provides stability and coordination during a disaster.[22]

Local

City of Monterey General Plan 2005 (General Plan)

The City of Monterey General Plan (General Plan) includes the following goals and policies associated with wildfire:

Public Facilities Element

Goal c: Maintain facilities to provide a cost-effective, high level of fire protection service.

> **Policy c.1:** Require built-in fire protection for new and existing structures to minimize the need for additional fire facilities.

[20] Fire Safe Council For Monterey County. July 27, 2023. Monterey County Community Wildfire Protection Plan. Available: https://drive.google.com/file/d/1MAzsPWnXuzrh4uiFTbw6k9TdTwLm8lfX/view?usp=sharing. Accessed: January 18, 2024

[21] County of Monterey. February 2022. Multi-Jurisdictional Hazard Mitigation Plan. Available: https://www.co.monterey.ca.us/government/departments-a-h/administrative-office/office-of-emergency-services/hazard-mitigation/2022-mjhmp. Accessed: January 18, 2024.

[22] County of Monterey Operational Area. November 2020. Emergency Operations Plan. Available: https://www.co.monterey.ca.us/home/showpublisheddocument/114295/637961619301000000. Accessed: January 18, 2024

Policy c.2: Identify cost-effective fire station locations, using contractual or automatic aid agreements.

Policy c.3: Continue to monitor and evaluate the need for a new fire station to serve the Monterey-Salinas Highway (68) and Ryan Ranch areas. Explore opportunities to co-locate at the airport's fire station to provide this additional service**.**

Policy c.4: Provide for adequate fire facilities through capital funding.

Policy c.5: Develop a plan to upgrade or replace the fire administration building.

Monterey City Code

The Monterey City Code adopts the California Building Code (Chapter 9, Article 1) and Fire Code (Chapter 13, Article 1), which contain fire safety standards that development in the city must adhere to. These standards are consistent with what is required in the State codes and use a hazard classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. Chapter 18, Article 3 also allows the City Council to designate underground utility districts when the public health or safety requires the removal of poles and overhead wires and associated overhead structures from the public streets, alleys or ways, within designated areas of the city. Chapter 18, Article 3 also requires the underground installation of wires and facilities for supplying electric, communication or similar or associated service. Chapter 33, Article 2 allows the Planning Commission to designate land as "hillside areas" where additional hillside improvements may be established by City Council (Sec 33-10). Chapter 31.5, Article 2, Urban Storm Water Quality Management and Discharge Control Ordinance, requires implementation of storm water and sediment controls. Lastly, Monterey City Code Chapter 9, Article 7, provides standards of construction to protect human life and health as well as minimize public and private losses due to flood conditions.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if the Proposed Plan would:

Criterion 1: **Substantially impair an adopted emergency response plan or emergency evacuation plan;**

Criterion 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;**

Criterion 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; or**

Criterion 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.

ASSUMPTIONS AND METHODOLOGY

Impacts related to wildfire hazards and risks were evaluated through a review of FHSZ mapping for the Planning Area and research prepared in compliance with federal, State, and local laws, regulations and professional standards pertaining to wildfire. In addition, impacts related to evacuation were assessed using an evacuation route capacity analysis for the City of Monterey General Plan Update prepared by Kimley-Horn and Associates, Inc. See Appendix H for the full Evacuation Route Capacity Assessment Report. CEQA does not generally require an agency to consider the effects of existing environmental conditions on a project's future users or residents. Consequently, impacts under the thresholds identified below would only be considered significant if the Proposed Plan risks exacerbating those existing environmental conditions.

RELEVANT PROPOSED GOALS AND POLICIES

The Proposed Plan contains the following goals and policies relevant to wildfire. The full text of proposed Housing Element programs is included in Appendix B for reference:

Housing Element

Housing Goal #1. Increase housing supply and facilitate production of at least 3,654 new homes by 2031.

Policy 1.5 Promote development of a variety of housing types, sizes, and densities that meet community needs based on the suitability of the land, including the availability of infrastructure, the provision of adequate services, and recognition of environmental constraints.

Circulation Element

Policy h.6 Incorporate the five E's of safety (Education, Engineering, Enforcement, Emergency Response, and Emerging Technology) when addressing safety concerns.

Policy j.9 Protect emergency evacuation routes.

Policy j.10 Maintain capacity on principal arterials to support emergency evacuation.

Safety Element

Policy A.21. Work to prevent wildland fire and to protect lives, property, and watersheds from fire dangers.

Policy A.22. Jointly with State, County, local and other agencies, inform property owners of wildfire risks and measures to reduce those risks, including by:

- Maintaining and making publicly available an up-to-date a map of high and very high fire hazard areas, consistent with CAL FIRE designations; and
- Disseminating information on fire weather watches and fire risks via the City's website and encouraging all Monterey residents to engage in risk reduction and fire preparedness activities.

Policy A.23. Maintain regulations and standards designed to achieve the greatest practical level of built-in fire protection to confine fires.

Policy A.24. Avoid, where feasible, locating new development in Very High Fire Hazard Severity Zones (FHSZ). If avoidance is not feasible, condition such new development on implementation of measures to reduce risks associated with that development.

Policy A.25. Require new development in Very High FHSZs to prepare a Fire Protection Plan that minimizes risks by:

- Assessing site-specific characteristics such as topography, slope, vegetation type, wind patterns etc.;
- Siting and designing development to avoid hazardous locations (eg. through fire breaks) to the extent feasible;
- Incorporating fuel modification and brush clearance techniques in accordance with applicable fire safety requirements and carried out in a manner which reduces impacts to environmentally sensitive habitat to the maximum feasible extent;
- Using appropriate fire-safe building materials and design features, consistent with the adopted City Code and Fire and Building Code standards to ensure the minimum amount of required fuel modification; and
- Using fire-retardant, native plant species in landscaping; and
- Complying with established standards and specifications for fuel modification, defensible space, access, and water facilities.

Policy A.26. Require that all new development located in a Very High FHSZs or a State Responsibility Area (SRA) be served by adequate infrastructure, including safe access for emergency response vehicles, visible street signs, and water supplies for fire suppression.

Policy A.27. Require new development in Very High FHSZs to enter into a long-term maintenance agreement for vegetation management in defensible space, fuel breaks, and roadside fuel reduction.

Policy A.28. Continue to require proactive weed abatement and, brush thinning, and removal services on new and existing development in High and Very High FHSZs in order to curb potential fire hazards.

Policy A.29. To facilitate the orderly evacuation of residential areas within the Very High FHSZs, maintain minimum standards for roadway design, maintenance, and vegetation management.

Policy A.30. Cooperate with the CAL FIRE and Monterey County Regional Fire District to ensure that all portions of the Planning Area are served and accessible within an effective response time and to address regional wildfire threats.

Policy A.31. Coordinate with the California-American Water Company and the Marina Coast Water District to ensure that those agencies plan for an adequate and sustainable water supply to meet fire suppression needs within the planning area over the long term.

Policy A.32. Work with responsible agencies and nongovernmental organizations to plan for post-fire recovery in a manner that reduces further losses or damages from future fires.

Policy A.33. Adopt and implement the Community Wildfire Protection Plan to guide the restoration and maintenance of landscapes, promote fire-adapted communities, and strengthen response to wildfire.

Goal B: Provide effective emergency response to disasters and emergencies.

Policy B.1: Use the adopted Local Hazard Mitigation Plan and Emergency Operations Plan to guide actions and investments for emergency preparedness and response.

Policy B.2: Maintain area-wide mutual aid agreements and communication links with partner agencies and other participating jurisdictions.

Policy B.3: Maintain and periodically update the Emergency Operations Plan to effectively prepare for, respond to, recover from, and mitigate the effects of natural or human caused disasters that require the planned, coordinated response of multiple agencies or jurisdictions.

Policy B.4: Partner with Caltrans and neighboring jurisdictions on measures to protect critical evacuation routes such as Highway 1 and Highway 68 and to develop contingency plans for operations when these and other roads are inoperable due to flooding or wildfire.

Policy B.5: Coordinate with Caltrans to identify and implement measures to temporarily increase capacity at highway ramps during emergency evacuation events. Measures may include optimizing adaptive signal systems, placing traffic cones to accommodate a higher volume of evacuating vehicles, providing real-time traffic safety and guidance information via changeable message sign (CMS) boards, and other strategies.

Policy B.6: Install clear and comprehensive signage and wayfinding to facilitate smoother traffic flow and direct residents and visitors effectively to evacuation routes.

Policy B.7: Study the feasibility of deploying dynamic message signs, roadway sensors, and other Intelligent Transportation Systems (ITS) tools to disseminate real-time traffic conditions, alternative routes, and delays to drivers, enhancing situational awareness and decision-making.

Policy B.8: Ensure road surfaces on City-designated evacuation routes can withstand extreme weather conditions and are maintained to accommodate increased traffic during evacuations.

Policy B.9: Require new residential subdivisions to have at least two ingress and egress routes that account for existing and proposed traffic evacuation volumes at buildout.

Policy B.10: Explore secondary means of ingress and egress in areas with existing evacuation constraints, as shown in Map 18, Evacuation Constrained Residential Parcels.

Policy B.11: Provide information on and build community awareness of major evacuation routes and notification systems used for emergency alerts to residents and businesses in Monterey.

Policy B.12: Use the countywide alert and early warning system to notify residents by phone, text, or email of extreme weather conditions and/or the need to evacuate in the event of emergency. The system should also be used to broadcast the location of evacuation centers, particularly for residents of vulnerable areas and neighborhoods with constrained emergency access.

Policy B.13. Develop an evacuation assistance program, in coordination with Monterey-Salinas Transit/ADA paratransit (RIDES) to help those with limited mobility or lack of access to a vehicle evacuate safely.

Goal C: Build community resilience to natural disasters and the effects of climate change.

Policy C.7: Promote community awareness and understanding of threat hazards, disaster response, and steps that can be taken to reduce personal risk by:

- Disseminating information in multiple languages and formats to reach all segments of the community;
- Providing emergency preparedness and emergency alert information through social media, traditional media, community fairs, and direct information to neighborhood associations, residents, service clubs, and other organizations; and
- Conducting educational seminars or evacuation practice events to enhance preparedness and response.

Policy C.8: Train City staff in emergency preparedness and response by maintaining updated emergency plans, conducting regular emergency and disaster preparedness exercises, testing operational and emergency plans, and coordinating efforts with the County of Monterey's Emergency Management Department.

Policy C.9: Identify a network of resilience hubs, such as the library, community centers, and other City facilities throughout Monterey, to serve as central points for gathering, sharing information, and accessing resources in the event of a natural or human-made disaster. Resilience hubs should be situated away from areas at risk of hazard impacts to

the extent possible, located in easily accessible locations, and equipped with backup power supplies.

Policy C.10: Create neighborhood-level resilience plans to improve initial emergency response, subsequent recovery, and ongoing self-sufficiency throughout the city.

Policy C.11: Expand the Community Emergency Response Training (CERT) program to address community and neighborhood preparedness for climate impacts. Pilot implementation of the updated program in areas with populations most vulnerable to climate impacts.

Policy C.12: Coordinate with Monterey-Salinas Transit to identify alternative routes and stops if normal route infrastructure is damaged or closed due to severe weather.

Goal d. Provide responsive police and fire services that support a safe and se-cure environment for people and property.

Policy D.7: Work with the California-American Water Company (Cal-Am) and the Marina Coast Water District (MCWD) to ensure adequate water pressure for fire-fighting and require that water systems serving new development be designed to meet fire flow requirements.

IMPACTS

Impact 3.15-1 Implementation of the Proposed Plan would substantially impair an adopted emergency response plan or emergency evacuation plan. *(Significant and Unavoidable)*

A significant impact would occur if implementation of the Proposed Plan would substantially impair implementation of the County of Monterey Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), the County of Monterey Emergency Operations Plan (OEP), or the Monterey County Community Wildfire Protection Plan (CWPP), which guide emergency evacuation and response operations within the Planning Area.

Adopted in 2022, the County of Monterey Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) was created to reduce the risk to life and property in Monterey County in an efficient and effective manner by decreasing the long-term vulnerability from hazards through coordinated planning, partnerships, capacity building, and implementation of effective risk reduction measures. Though emergency preparedness and response activities do not always fall under hazard mitigation, the MJHMP recognizes reducing the risk to life and property posed by the hazards as an important objective. The MJHMP is built around 10 goals, two of which relate directly to emergency response:

- Goal #3: Build and support capacity to enable local government and the public to prepare for, respond to, and recover from the impact of natural hazards.
- Goal #6: Inform the public on the risk from hazards of concern and increase awareness, preparation, mitigation, response, and recovery activities to promote public safety.

To implement these goals, the City of Monterey jurisdictional annex to the MJHMP includes specific actions that the City will implement to facilitate emergency evacuation and response, including in the event of wildfire. Action #1 involves developing a sustained audience-specific public outreach program that encourages consistent hazard mitigation content and improves public awareness and knowledge regarding all types of hazards, preparedness, and mitigation measures. Audiences include the elderly, children, tourists, non-English speaking residents, and home and business owners. Action #5 involves updating the Community Wildfire Protection Plan and implement recommended strategies.

The County of Monterey Emergency Operations Plan (EOP) describes the Operational Area's emergency organization; roles, responsibilities, and authorities; response and recovery; effective mobilization of all the resources of the County, both public and private, to meet any condition constituting a local emergency, including a wildfire. The Monterey County Community Wildfire Protection Plan (CWPP) by MFSC outlines existing evacuation procedures and provides associated recommendations, such as funding emergency ingress and egress routes and reducing fuel loads along access roads to provide safe access for fire personnel and resident evacuation.

Figure 3.15-3 shows the principal emergency evacuation routes and other roadways providing access to them. In the event of a natural hazard, the main evacuation routes used in the City of Monterey include Highway 1, Highway 68, Munras Avenue, and Fremont Street. Implementation of the Proposed Plan would result in up to 5,800 new homes and 1,995 new jobs in Monterey by 2031. Additional residents and employees in the city would increase traffic volumes on evacuation routes and access roads, potentially impacting emergency evacuation capacity. However, an evacuation route capacity analysis conducted by Kimley-Horn and Associates for the Proposed Plan concluded that, on a systemwide basis, roadways in the planning area would have adequate capacity for an evacuation. The analysis provides an assessment of roadway capacity based on a single, multi-hazard evacuation scenario, which represents a worst-case situation involving wildfire in the VHFHSZ west of Highway 1 and flooding in the 100-year flood hazard area on Del Monte Ave, Camino El Estero, and Camino Aguajito. The analysis assumed a short evacuation notice, issued abruptly early in an off-peak when all residents are at home and evacuation demand traffic would be at its highest. Under these conditions, evacuation-induced traffic volumes largely remained below the capacity within the evacuation zones and their immediate vicinities. The analysis found that the roads have an overall capacity of 9,300, and the evacuation demand would be 3,706 vehicles. Further, the analysis concluded that upon accessing the primary evacuation routes, the traffic conditions would be favorable, with sufficient capacity to facilitate a smooth evacuation.

The Proposed Plan also includes an array of policies that would enhance community preparedness and strengthen emergency response to wildfires which are listed above. Policies that specifically strengthen community wildfire preparedness include A.22 which disseminates fire weather information, A.24 through A.29 which require development standards in Very High FHSZs, A.30 through A.32 which require coordination with regional agencies for preparedness, and C.7 through C.12 which build community resilience to natural disasters through education. In addition, several Safety Element policies ensure effective emergency response to disasters and emergencies. Policies B.1 through B.3 require compliance with adopted emergency operation plans; policies B.4 and B.5 require coordination with Caltrans to protect and increase capacity of critical evacuation routes; policies B.6, B.7, B.11, and B.12 explore enhancing signage and building community awareness of

evacuation routes; and policies B.8 through B.10 ensure sufficient road conditions and means of ingress and egress. These policies would support and enhance the implementation of the MJHMP, OEP, and CWPP.

Even so, the analysis concluded that under this multi-hazard evacuation scenario, traffic volumes would surpass capacity as traffic approaches Highway 1 at two locations in the network: the interchange of Fremont Street-Highway 1, where the volume to capacity ratio (v/c) would be 1.2, and at the Soledad Drive-Highway 1 approach, where the v/c ratio would be 1.1. This is a potentially significant impact; therefore mitigation measure MM-WF-1, which involves measures to temporarily increase capacity at constrained locations and proactively manage vehicle flow, is required to reduce this impact to a less than significant level.

However, the highway onramps are part of the State transportation network, under the jurisdiction of Caltrans. Caltrans does not currently have a plan or funding in place to temporarily increase capacity at constrained locations and implementation of this mitigation measure is beyond the control of the City. As such, it cannot be determined at this time whether the impact will in fact be mitigated to a less than significant level. Therefore, overall this impact is considered significant and unavoidable.

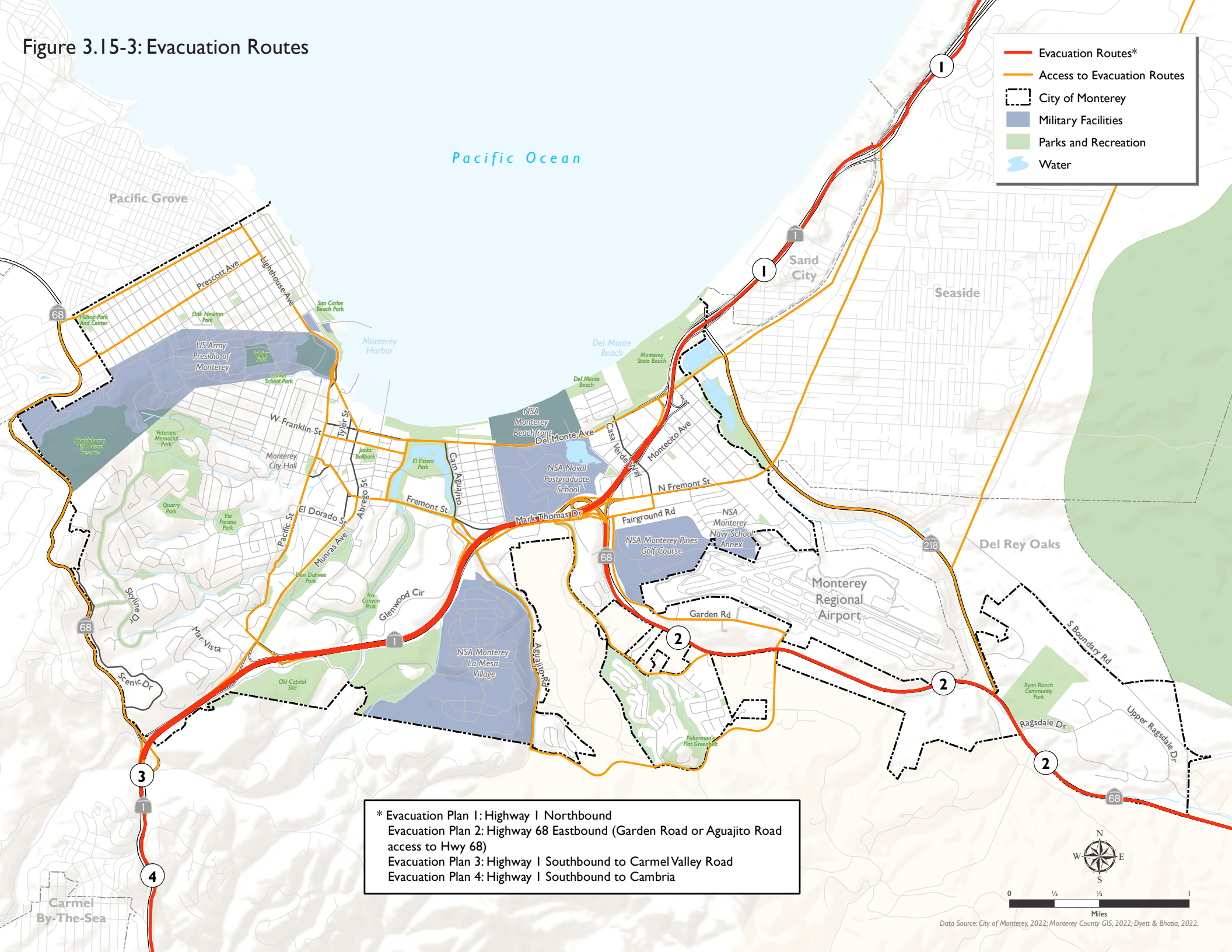
Mitigation Measures

MM-WF-1 The following measures shall be implemented to increase capacity and improve vehicle flow at locations projected to have a high volume-to-capacity ratio in the event of an emergency evacuation:

- Mitigate congestion and delay at the interchanges of Fremont Street-Highway 1 and Soledad Drive-Highway 1 by temporarily widening highway ramps by placing traffic cones to indicate two lanes to accommodate a higher volume of evacuating vehicles.
- Deploy adaptive traffic signal control systems that dynamically respond to real-time traffic conditions at the Fremont Street-Highway 1 interchange, giving priority to evacuation traffic and improving the efficiency of traffic flow during emergencies.

Significance after mitigation: Less than Significant

Figure 3.15-3: Evacuation Routes



Impact 3.15-2 Implementation of the Proposed Plan would not exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. *(Less than Significant)*

As shown in Figure 3.15-2, upland areas in the south and southwest of Monterey are in a Very High Fire Hazard Severity Zone (VHFHSZ) as mapped by CAL FIRE. Within these areas, there is forest and chaparral vegetation that is highly flammable. These areas also contain moderate to steep slope and can become extremely dry during the summer months, which also contributes to wildfire risk. In Monterey, existing low density single family residential development occurs throughout the VHFHSZ.

As noted in the Attorney General's report, *Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act*, fire spread and structure loss is more likely to occur in low- to intermediate-intensity developments in high fire risk areas. The Proposed Plan would largely involve the development of high density/intensity development in key opportunity areas that are not contained within VHFHSZ and other areas of elevated wildfire risk. As such the location and type of development would generally be less likely to foment fire spread and structure loss. However, the Proposed Plan would involve some smaller scale residential developments and ADUs in the southwestern portion of the city, and residential development on the 50-acre MPUSD site south of Highway 68 and Fort Ord/Ryan Ranch area that would be adjacent to VHFHSZs in the SRA. Given that the Project proposes development in this area and the extent of which VHFHSZs exist in and around Monterey, buildout of the Proposed Plan could increase the risk of loss and damage due to wildfire, resulting in potentially significant impacts.

However, all new construction under the Proposed Plan would be subject to the California Fire Code, which include safety measures to minimize the threat of fire, including ignition-resistant construction with exterior walls of noncombustible or ignition resistant material from the surface of the ground to the roof system and sealing any gaps around doors, windows, eaves, and vents to prevent intrusion by flame or embers. Construction would also be required to meet CBC requirements, including CCR Title 24, Part 2, which includes specific requirements related to exterior wildfire exposure. The Board of Forestry, via CCR Title 14, sets forth the minimum development standards for emergency access, fuel modification, setback, signage, and water supply, which help prevent loss of structures or life by reducing wildfire hazards. The codes and regulations would reduce the risk of loss, injury, or death from wildfire for new developments under the Proposed Plan.

Further, except for Fort Ord/Ryan Ranch, development under the Proposed Plan would largely occur on sites where existing water distribution mains are located. Developments pursuant to the Proposed Plan without existing utility connections would be required to install new water mains within the street network to serve fire and domestic water needs. Water mains would be installed by the water provider and laterals connecting to the mains would be installed by the developer/property owner. Final sizing of any particular line will be subject to modeling of the system that must rely on water use parameters of any particular project or group of projects once those details are known. In addition, Monterey City Code Section 33-35 requires the subdivider to install water mains of the proper size to give the required fire flow as well as fire hydrants of a type

and size as approved by the Fire Department. See also Draft EIR Section 3.14: Utilities and Service Systems for more information regarding water supply and infrastructure improvements. Further, through implementation of Policy d.7. in the General Plan Safety Element, the City will work with Cal-Am and Marina Coast Water District to ensure adequate water pressure for firefighting. Adherence to these codes and regulations would reduce the risk of loss, injury, or death from wildfire for new developments encouraged by the Proposed Plan.

As such, compliance with existing State and local codes, plans, and regulations would reduce impacts to the maximum extent practicable and, therefore, impacts related to exacerbated wildfire risks, increased exposure to pollutant concentrations from a wildfire, and uncontrolled spread of wildfire resulting from implementation of the Proposed Plan would be less than significant.

Mitigation Measures

None required.

Impact 3.15-3 Implementation of the Proposed Plan would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. *(Less than Significant with Mitigation Incorporated)*

As noted above, implementation of the Proposed Plan would focus growth largely in key opportunity areas and on previously developed sites served by existing roadway and utility infrastructure and generally removed from areas of elevated wildfire risk. However, in certain areas, including the 50-acre MPUSD site south of Highway 68 and in the Fort Ord/Ryan Ranch area, new and expanded road and utility infrastructure would be needed to support anticipated development. Neither of these locations is within a Very High, High or Moderate Fire Hazard Severity Zone, although the 50-acre MPUSD site and the southern portion of the Fort Ord/Ryan Ranch both abut VHFHSZs in the SRA. Nonetheless, the installation and operation of road and utility infrastructure could result in a potentially significant exacerbation of wildfire risk.

As described above, compliance with existing State regulations, including Title 14 of the California Code of Regulations and the California Fire and Building Codes, would help reduce wildfire risks from new development. Additional Proposed Plan policies to help reduce infrastructure-related wildfire risk include policies related to vegetation management, roadside fuel reduction, fuel breaks, water supply for fire suppression, and fire protection plans for new development. Implementation of these policies would reduce the potential for wildfire ignition from the operation of construction equipment or vehicles traveling on roadways in the area. Further, Chapter 18, Article 3 of the Monterey City Code allows for the City Council to designate underground utility districts when public necessity, health, or safety requires the removal of poles and overhead wires and associated overhead structures within designated areas of the city. Designating underground utility districts adjacent to the VHFHSZs in the SRA would reduce the potential for wildfire ignition from power lines; however, as such districts have not yet been designated in these areas, it cannot be said with certainty that new power lines would be installed underground, and impacts related to the installation or maintenance of electrical utility infrastructure would be potentially significant.

Therefore, the mitigation measure MM-WF-2, which would involve the creation of an underground utility district to require the under grounding of electrical utility lines within portions of the Highway 68 Area Plan and the Fort Ord Reuse Area adjacent to a VHFHSZ, is required.

As such, compliance with existing State and local regulations and implementation of Proposed Plan policies and mitigation Measure MM-WF-2 would reduce impacts related wildfire risks from the installation and operation of infrastructure to a less-than-significant level.

Mitigation Measures

MM WF-2: The City shall adopt an underground utility district applicable to areas within the Highway 68 Area Plan and the Fort Ord Reuse Area that are identified on Map 3-14 Sites Available for Housing of the Housing Element and that are both adjacent to and within 1,000 linear feet of a VHFHSZ designated by the California Department of Forestry and Fire Protection. The underground utility district shall require that all new electrical poles, overhead wires, and associated overhead structures be installed underground in order to reduce wildfire risks and promote public safety.

Significance after mitigation: Less than Significant

Impact 3.15-4 Implementation of the Proposed Plan would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. *(Less than Significant)*

The City of Monterey is located between the California coastline and the central ridge of wooded hills in the Santa Lucia Mountains. The southern portion of the planning area contains forested hills and steep terrain. There are pockets of landslide susceptibility throughout the upland areas in the south and southwest of the city, with an area of high landslide susceptibility in the hills near Fisherman's Flats Greenbelt. The risk of landslides in the hilly terrain could be exacerbated if existing vegetation is substantially removed during a wildfire event.

In 2020, the Resource Conservation District of Monterey County (RCDMC) was awarded the CALFIRE Fire Prevention grant for the Carmel Valley Fuelbreak Project. This project covers approximately 403 acres across Carmel Valley to re-establish and strengthen strategic fuel breaks and help implement community fuels treatments in critical neighborhoods of the WUI zones in the county, including areas along the southern border of the Planning Area which contain forested ridgelines. Fuels reduction work under this program is expected to be completed. The fuel break project, anticipated for completion by Winter/Spring 2024, will create and maintain a continuous reduced-fuel and forest-health-restoration zone intended not only to reduce wildfire intensity and rate of spread as well as to provide strategic and safer locations for firefighters and emergency personnel, but also to limit the potential for subsequent slope instability in the forested foothills.

While there are no housing opportunity sites identified in high landslide susceptibility areas in the city, implementation of the Housing Element would permit development in and downslope from moderate landslide susceptibility areas, and as such, could expose people and structure to risk in the event of flooding or landslides following a wildfire event. However, as described in Section 3.7 (Geology and Soils) of this Draft EIR, development in areas of steeper terrain under the Proposed Plan would be required to comply with the provisions of the Monterey City Code as well as with NPDES stormwater requirements for erosion control. Monterey City Code Section 33-10 allows the Planning Commission to designate land as "hillside areas" and enforce hillside improvement standards as established by the City Council. Further, the provisions of Chapter 31.5, Article 2 of the Monterey City Code require implementation of stormwater and sediment controls.

Therefore, the risk of loss or damage in downstream areas due to landslides and downstream flooding would be reduced to the maximum extent practicable with compliance with existing regulations related to hillside construction, stormwater management, and flood and erosion control. Accordingly, impacts related to post-fire hazards would be less than significant.

Mitigation Measures

None required.

3.16 Effects Found Not to be Significant

CEQA Guidelines Section 15082 allows lead agencies to narrow the scope of the EIR based on the scoping process. A Notice of Preparation (NOP) of an EIR for the Proposed Plan was prepared and circulated for public review between August 2, 2023, and September 4, 2023. The NOP identified certain impacts for which there is no likelihood of a significant impact due to the location and characteristics of the Planning Area. This chapter provides a brief description of these effects found not to be significant, based, in part, on the NOP evaluation, NOP comments, and/or more detailed analysis conducted as part of the EIR preparation process. There were no NOP comments related to the topics covered in this section.

Forest Resources

A significant impact would occur if implementation of the Proposed Plan would result in one or more of the following:

Criterion 1: **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)); or**

Criterion 2: **Result in the loss of forest land or conversion of forest land to non-forest use.**

Forest land is defined as land that can support ten-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 (Public Resources Code Section 12220[g]).[1] Timberland is defined as land, other than land owned by the federal government and land designated by the State Board of Forestry and Fire Protection 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 (Public Resources Code Section 4526). Timberland Production Zone designates 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 (Government Code section 51104[g]).

[1] California Public Resources Code, Division 4, Part 2.5 Forest Resources, Avaliable: https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=PRC&division=4.&title=&part=2.5.&chapter=1.&article=, Accessed: November 21, 2023.

There is no land within the City limit that is designated or zoned as forest land, timberland, or timberland production. While portions of the Planning Area support tree cover, these lands are generally designated as open space on the General Plan Land Use Map and urban development is not permitted within the open space land use designation. Some land within the Highway 68 Area Plan boundaries, including Tarpey Flats and the 50-acre MPUSD site, may meet the definition of forest land; however, these lands are adjacent to urban uses and are not managed for forest resources or used for commercial timber production, and therefore do not meet the Public Resources Code Section 12220[g] definition of Forest land. Therefore, overall, the Proposed Plan would have no impact on forest resources.

Mineral Resources

A significant impact would occur if implementation of the Proposed Plan would result in one or more of the following:

Criterion 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; or**

Criterion 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 California Surface Mining and Reclamation Act (SMARA) of 1975 requires the classification of land into Mineral Resources Zones (MRZs) according to known or inferred mineral potential of that area. The only area in Monterey County designated as an area of identified mineral resource significance, is in the vicinity of Marina, Sand City and Seaside.[2] Additionally, there are no mineral resource recovery sites within the Planning Area. The closest active mining site is the Fan Shell Beach Silica Mine in Del Monte Forest, approximately 3.5 miles to the southwest of the city.[3] As such the Proposed Plan would not result in the loss of availability of either a known mineral resource deposit or a locally important mineral resource recovery site and there would be no associated impact.

[2] Monterey County General Plan EIR. 2004. Avaliable: https://www.co.monterey.ca.us/government/departments-a-h/housing-community-development/planning-services/current-planning/general-info/2010-monterey-county-general-plan-adopted-october-26-2010/draft-environmental-impact-report-deir. Accessed: December 20, 2023.

[3] Mining In Monterey County, California. 2023. Avaliable: https://thediggings.com/usa/california/monterey-ca053. Accessed: December 20, 2023.

4 Alternatives Analysis

The California Environmental Quality Act (CEQA) mandates consideration and analysis of alternatives to the Proposed Plan. According to CEQA Guidelines, the range of alternatives "shall include those that could feasibly accomplish most of the basic purposes of the project and could avoid or substantially lessen one or more of the significant impacts" (CEQA Guidelines Section 15126.6 (d) (2)). Accordingly, the following discussion is intended to inform the public and decision makers of the feasible alternatives that would avoid or substantially lessen significant effects of the Proposed Plan, and to compare such alternatives to the Proposed Plan. As required under CEQA, the discussion includes an evaluation of the No Project Alternative to allow decision-makers to compare the impacts of approving the Proposed Plan against the impacts of not approving it.

Case law provides that the discussion of alternatives need not be exhaustive and that alternatives be subject to a rule of reason. The impacts of the alternatives may be discussed "in less detail than the significant effects of the project proposed" (CEQA Guidelines Section 15126.6 (d)). Additionally, the CEQA Guidelines permit analysis of alternatives at a less detailed level for programmatic or plan-level EIRs than what is required for project EIRs. The CEQA Guidelines do not specify what constitutes an adequate level of detail, though they require that an EIR provide sufficient information to allow meaningful evaluation, analysis, and comparison of each alternative. CEQA Guidelines require that this analysis identify the environmentally superior alternative among those analyzed. Quantified information on the alternatives is presented where available; however, in some cases only partial quantification can be provided because of data or analytical limitations.

BACKGROUND

The Proposed Plan is a targeted update to the Housing, Land Use, Safety, and Circulation Elements of the City of Monterey General Plan (adopted in 2005) intended to respond to emerging issues and new State laws and guide development and conservation within the Planning Area through 2031. The Proposed Plan, which establishes a long-range planning framework and policies, would fully replace the existing Housing, Land Use, Safety, and Circulation Elements of the General Plan if adopted by the City Council. Although the Proposed Plan does not specify or anticipate when buildout of individual development projects pursuant to the Plan will occur, a horizon year of 2031 is assumed for planning purposes.

State law requires the EIR to set forth the alternatives necessary to permit a reasoned choice that would avoid or substantially lessen any significant effects and feasibly attain most of the project objectives, described in Chapter 2, Project Description, of this Draft. As discussed in Chapter 3.1 through 3.16 of this Draft EIR, implementation of the Proposed Plan would result in significant

and unavoidable impacts related to agricultural resources (Impact 3.2-3), air quality (Impacts 3.3-1, 3.3-2, and 3.3-3), greenhouse gas (GHG) emissions (Impacts 3.6-1 and 3.6-2), transportation (Impact 3.13-2), and utilities (Impacts 3.14-1 and 3.14-2). Therefore, three alternatives to the Proposed Plan that could potentially avoid or substantially reduce these significant impacts are analyzed in this chapter: a No Project Alternative, a Relocated Housing Growth Alternative, and Increased Workforce Housing Alternative. Descriptions of each alternative and their impacts are provided below. A Reduced Development Alternative was also considered; however, for reasons discussed in Section 4.2, below, this Alternative was determined to be infeasible and therefore is not analyzed in detail.

4.1 Alternatives Analyzed in This EIR

NO PROJECT ALTERNATIVE

Consistent with Section 15126.6(e)(2) of the CEQA Guidelines, the No Project Alternative represents what would be reasonably expected to occur in the foreseeable future if the Proposed Plan were not adopted and the City's current 2005 General Plan, including the 2015-2013 Housing Element, was left unchanged and in use. This Alternative would retain all current land use designations and policies from the 2005 General Plan as amended to date. There would be no changes to the current General Plan Land Use map, no new Mixed Use Neighborhood land use designation, and no new Airport Compatibility Overlay. Strategies to facilitate and incentivize housing development as needed to meet the City's assessed share of the regional housing need would not be implemented and policies related to land use, safety, and circulation would also remain unchanged.

Overall, the No Project Alternative (Current City General Plan) is projected to result in approximately 991 new residents, 511 new housing units, and 1,991 new jobs in Monterey by 2031. For the 2015-23 Housing Element Cycle, the City has a total RHNA allocation of 650 units, of which 139 were permitted or constructed. Accordingly, this Alternative assumes buildout of the City's remaining RHNA allocation pursuant to the adopted Fifth Cycle Housing Element. Additionally, this option assumes that Fort Ord will be constructed with industrial (employment) uses and the Highway 68 Corridor in compliance with the voter approved Highway 68 Area Plan. The Highway 68 Area Plan assumes residential and commercial development, including a school, 300 below market rate housing units and parks/open space uses on the 50-acre MPUSD site. The current General Plan does not plan for enough housing for the 2023-2031 required RHNA allocation. Although the No Project Alternative would not achieve the project objectives and as such is not considered a feasible project alternative, it is presented below as required by the State CEQA Guidelines.

RELOCATED HOUSING GROWTH ALTERNATIVE

The Relocated Housing Growth Alternative is designed to avoid significant environmental impacts related to development at Fort Ord, including a significant and unavoidable impact related to the availability of water supply from the Marina Coast Water District as well as significant impacts related to biological resources and hazardous materials that can be reduced to a less than significant level with mitigation. Under this Alternative, a mixed-use neighborhood integrating 1,660 new

homes together with jobs, schools, shops, services and recreational amenities and natural open space would not be planned and constructed. Instead, the Alternative would involve development of employment related uses at Fort Ord as envisioned in the 2005 General Plan, while housing growth would be shifted to the downtown area and key commercial corridors, including North Fremont Street, Lighthouse Avenue, Del Monte Avenue, Garden Road, Pacific Avenue, Munras Avenue, and Abrego Street. To accommodate this additional housing growth, permitted density along the commercial corridors would be increased to 60 dwelling units per acre and maximum building height would be raised to 5 stories. Development of the 50-acre MPUSD site in the Highway 68 Plan area would proceed as with the Proposed Plan, the new Airport Compatibility Overlay would be adopted, and policies related to land use, safety, and circulation would be updated to address new State law and emerging issues, as with the Proposed Plan.

Overall, the Relocated Housing Growth Alternative is projected to result in approximately 8,115 new residents, 4,183 housing units, and 1,991 new jobs in Monterey by 2031.

INCREASED WORKFORCE HOUSING ALTERNATIVE

The Increased Workforce Housing Alternative is designed to address significant and unavoidable impacts related to employment vehicle miles travelled (VMT) and the loss of agricultural grazing land within the Highway 68 Plan area. While per capita VMT would improve significantly under the Proposed Plan, robust employment growth would mean that a large number of people - many of them low wage earners employed in the hospitality and tourism sectors - would continue to commute into the Planning Area for work each day, resulting in a significant employment VMT impact. Therefore, this Alternative would involve land use and zoning changes to further increase workforce housing development in proximity to job centers and achieve an equal number of jobs and housing units in Monterey in 2031.

Specifically, this Alternative would replace office and visitor-serving uses with high density housing in the following locations: Downtown, Cannery Row, Lighthouse Avenue, North Fremont Street, Pacific Avenue, Munras Avenue, and Abrego Street. Additionally, it would transform Del Monte Avenue into a high-density residential corridor, and reduce projected job growth at Fort Ord while also increasing multifamily housing at Fort Ord adjacent to the Ryan Ranch Business Park, a major employment center within the Planning Area. Under this Alternative, development of the 50-acre MPUSD site and other housing development envisioned under the Highway 68 Area Plan would not proceed and grazing land would remain in its current state; however, the new Airport Compatibility Overlay would be adopted, and policies related to land use, safety, and circulation would be adopted to address new State laws and emerging issues, as with the Proposed Plan. Overall, the Increased Workforce Housing Alternative is projected to result in approximately 19,070 new residents, 9,830 housing units, and 921 new jobs in Monterey by 2031.

Table 4-1 provides a comparison of projected buildout for the Proposed Plan and No Project, Relocated Housing Growth, and Increased Workforce Housing Alternatives.

Table 4-1: Alternatives Buildout Comparison

	Proposed Plan	*No Project*	*Relocated Housing Growth*	*Increased Workforce Housing*
Existing (2023)				
Housing Units	13,825	13,825	13,825	13,825
Population	26,845	26,845	26,845	26,845
Jobs	22,734	22,734	22,734	22,734
Net New				
Housing Units	5,787	511	4,183	9,830
Population	10,198[1]	991[1]	8,115[1]	19,070[1]
Jobs	1,991	1,991	1,991	921
Total (2031)				
Housing Units	19,612	14,336	18,008	23,655
Population	37,043	27,836	34,960	45,915
Jobs	24,725	24,725	24,725	23,655

1. Based on assumption of 1.94 people per household (per U.S. Census Bureau, 2020) and housing vacancy rate of 9.4% (California Department of Finance, 2023).

Sources: Dyett & Bhatia, 2024; California Department of Finance, 2023.

4.2 Alternatives Considered but Not Evaluated in Detail in this EIR

One alternative to the Proposed Plan that could avoid or substantially reduce the significant impacts of the Proposed Plan was considered, a Reduced Development Alternative. However, as described below, this Alternative was determined to be infeasible and therefore is not analyzed further.

REDUCED DEVELOPMENT ALTERNATIVE

To address significant and unavoidable impacts related to VMT, GHG emissions, and water supply, a Reduced Development Alternative was considered, involving more housing than the No Project Alternative but less housing than the Relocated Housing Alternative. The Reduced Development Alternative would not involve new residential or non-residential development either at Fort Ord or within the Highway 68 Plan area, instead concentrating new growth in previously developed portions of the Planning Area. However, while a reduction in service population under this Alternative would reduce future demand for water and result in lower total VMT and associated GHG emissions, this Alternative would not meet the basic project objectives as it would not accommodate the City's assessed share of the regional housing need. Consequently, this Alternative was found to be infeasible and is not analyzed further.

4.3 Impact Analysis of Alternatives

NO PROJECT ALTERNATIVE

Aesthetics and Visual Resources

The No Project Alternative would result in fewer residential uses compared to the Proposed Plan. While this Alternative would have less overall development, the development that does occur would differ in scale and density from the Proposed Plan. While the overall amount and location of development would differ from the Proposed Plan, the design standards and guidelines that the Proposed Plan would adhere to can be assumed to be similar. As with the Proposed Plan, the Alternative would comply with the General Plan, City Code, Specific and Neighborhood Plans, and City's Objective Design Standards that regulate aesthetics and visual character and enforce protection measures for scenic corridors and entryways. Overall, impacts related to aesthetics and visual resources would remain less than significant. Given that there would be a lesser amount of development under the No Project Alternative, overall aesthetic impacts would be lessened compared to the Proposed Plan.

Agricultural Resources

The No Project Alternative would involve development of 511 additional new housing sites primarily on underutilized commercial and residentially zoned sites, as identified in the Fifth Cycle Housing Element. None of the housing sites identified are located within the Highway 68 Plan area and as such there would be no conversion of Farmland to non-agricultural use. As such, this Alternative would avoid the impacts to agricultural resources that would occur under the Proposed Plan and there would be no associated impacts.

Air Quality

Impacts under the No Project Alternative related to air quality during construction would be lower than those of the Proposed Plan because the overall amount of development proposed would be reduced. This would result in a shorter duration for construction activities. As with the Proposed Plan, it is likely that the No Project Alternative would implement policies or programs that would support or complement pollutant control measures and 2016 Air Quality Management Plan (AQMP) programs.

Similar to the Proposed Plan, it is assumed that individual developments would implement similarly applicable mitigation measures presented in Chapter 3.3 of the EIR as necessary to reduce air quality impacts under the No Project Alternative. Future projects that exceed MBARD's project emissions thresholds would incorporate project-specific mitigation measures (as necessary) and address project-level sources of criteria air pollutants. Operational emissions would be reduced by commute trip reduction programs, substantially reducing on-road PM emissions. However, even with these mitigation measures, individual projects may exceed MBARD's project-level thresholds and cumulatively contribute to the nonattainment of PM_{10} in the NCCAB. Therefore, operational air quality impacts are conservatively assumed to remain significant and unavoidable, but less than that of the Proposed Plan.

Biological Resources

Under the No Project Alternative, residential development in the Planning Area would not include the housing units in the Fort Ord and Highway 68 area and would proceed at fewer sites and lower densities compared to the Proposed Plan. Because the No Project Alternative would still allow development at Fort Ord and properties within the Highway 68 Area Plan study area, including construction and demolition, the Alternative would have similar biological resources impacts compared to those of the Proposed Plan. However, impacts would be reduced given that less development would occur under this Alternative. As such, biological resource impacts under the No Project Alternative would result in less than significant impacts with mitigation related to special-status species and wildlife movement and a less than cumulatively considerable contribution to significant cumulative biological resources impacts. It is assumed that individual developments would implement similarly applicable mitigation measures presented in Chapter 3.4 of the EIR as necessary to reduce biological resources impacts under the No Project Alternative.

Cultural, Tribal, and Historic Resources

Under the No Project Alternative, development in the Planning Area would proceed as envisioned under the Proposed Plan. Excavation, grading, or demolition activities in the Planning Area would still occur, as such impacts would be roughly equivalent to the Proposed Plan. It is assumed that individual developments would implement similarly applicable mitigation measures presented in Chapter 3.5 of the EIR as necessary to reduce cultural, tribal, and historic resources impacts to a less than significant level. In addition, applicable State and local regulations presented in Chapter 3.5 of this EIR would be implemented as necessary to reduce cultural, tribal, and historic resources impacts under the No Project Alternative.

Energy, Greenhouse Gas Emissions, and Climate Change

Given the overall lower amount of development, it is likely that energy usage would be lower under the No Project Alternative compared to the Proposed Plan. However, the No Project Alternative would promote a land-use strategy that is lower density, which would result in reduced energy efficiency overall for Planning Area residents and operations as compared to the Proposed Plan. Even so, overall impacts would be less than significant. Compared to the Proposed Plan, the No Project Alternative would have a lower degree of energy impacts.

Under the No Project Alternative, development in the Planning Area would proceed as envisioned under the City's current 2005 General Plan, which includes City's 2015-2023 Housing Element Update and Land Use Element, with 511 housing units. This option includes industrial development at Fort Ord and development anticipated by the Highway 68 Area Plan. Demolition and construction activities, as well as new operational sources of GHG emissions, would still occur throughout the Planning Area. Given the reduced amount of development compared to the Proposed Plan, this Alternative would thus be expected to have a shorter duration for construction activities, which would result in reduced impacts from construction-related emissions. It is assumed that applicable mitigation measures presented in Chapter 3.6 of the EIR would be implemented as necessary to reduce construction-related GHG emissions impacts under the No Project Alternative. Operation of land uses supported by the Alternative would generate direct and indirect GHG emissions similar to that of the Proposed Plan. However, given there is significantly

less development under this Alternative, GHG emissions would be reduced, but not necessarily on a per capita basis. Even so, this operational impact is expected to be less than significant under the No Project Alternative, compared to the significant and unavoidable impact under the Proposed Plan.

Overall, greenhouse gas impacts would be lessened compared to the Proposed Plan. However, it is not possible to quantify the precise extent of reductions for the majority of the measures for a plan-level analysis. It is likely that GHG emissions from mobile sources would still conflict with goals of SB 743 under the No Project Alternative and it would have a significant and unavoidable impact.

Geology, Soils, and Seismicity

Under the No Project Alternative, development in the Planning Area would proceed as envisioned under the City's current 2005 General Plan, which includes the City's 2015-2023 Housing Element Update and Land Use Element, with 511 housing units. This option includes industrial development at Fort Ord and development envisioned in the Highway 68 Area Plan. Excavation, grading, or demolition activities in the Planning Area would still occur at sites identified for development under the Proposed Plan. Because the No Project Alternative envisions development at reduced intensities compared to the Proposed Plan, the No Project Alternative would have reduced impacts related to landslides, soil erosion, and unstable soils compared with the Proposed Plan. Buildout under the No Project Alternative would result in less than significant project-level impacts and a less than cumulatively considerable contribution to significant cumulative impacts with implementation of existing State and local regulations. Therefore, compared to the Proposed Plan, geology and soil impacts would be further reduced under this Alternative.

Hazards and Hazardous Materials

Impacts related to hazards and hazardous materials under the No Project Alternative would be similar to those of the Proposed Plan because construction would have similar risks, associated with the accidental release of hazardous materials, and would be subject to the same site remediation requirements as the Proposed Plan. As with the Proposed Plan, the construction and operation of housing generally does not involve the release -- accidental or otherwise -- of hazardous materials that would create a significant hazard to the public. Further, existing regulatory programs associated with handling hazardous materials during construction and operation of the site would decrease potential impacts. Therefore, compliance with the appropriate State and federal regulations on transportation and disposal of hazardous materials would lead to a less than significant impact, with impacts similar, but reduced as compared to the Proposed Plan. Impacts related to the hazard of wildfire are addressed in the Wildfire section below.

Hydrology and Water Quality

Similar impacts on hydrology, drainage, and water quality would result from the No Project Alternative compared with the Proposed Plan because excavation, grading, and demolition would still be required for demolition of existing buildings and new construction at the sites. Therefore, the potential impacts under the No Project Alternative on hydrology, drainage, and water quality would be similar or slightly reduced compared to those of the Proposed Plan. With implementation of existing State and local regulations, project-level and cumulative impacts related to hydrology,

drainage, and water quality under the No Project Alternative would be less than significant and less than impacts under the Proposed Plan.

Land Use, Population, and Housing

Under the No Project Alternative, development in the Planning Area would proceed as envisioned under the City's current 2005 General Plan, which includes the City's 2015-2023 Housing Element and Land Use Element. The previously adopted Housing Element's goals in the 2005 General Plan include providing opportunities for new housing development, particularly in mixed-use neighborhoods in the Downtown, Lighthouse/Foam, and North Fremont areas, creating transit-oriented housing. Like the Proposed Plan, this Alternative would support mixed-use, infill, and higher density development around the Downtown, Lighthouse, and North Fremont areas, as well as other opportunity areas. The No Project Alternative's vision for the Planning Area is consistent with the regional goals for transit-oriented development identified in Moving Forward Monterey Bay 2045, the Sustainable Communities Strategy for the Monterey Bay area. Further, all future residential development occurring within the city under the No Project Alternative would be required to be evaluated in accordance with local regulations, including the General Plan and City Code.

Neither the Proposed Plan nor the No Project Alternative introduces physical barriers that would divide an established community. The Proposed Plan and Alternative would not involve the construction of a linear feature or other barrier and would not remove any means of access or impact mobility. Implementation of the No Project Alternative would facilitate residential development consisting primarily of small scale within the City limit; it would result in no impact with respect to physically dividing an existing community. The implementation of both the Proposed Plan and No Project Alternative would facilitate construction of new housing; however, the No Project Alternative would not result in sufficient housing to meet the City's 2023-2031 RHNA obligations. As such, the resulting increase in population and housing units would not be considered substantial unplanned growth as it would be consistent with regional planning projections, and it would occur incrementally. Further, both the Proposed Plan and No Project Alternative involve infill development within the city limit. Therefore, the Proposed Plan would result in a less than significant impact associated with population growth, either directly or indirectly. Because development of the same character would still occur in the Planning Area, although to a lesser extent, the No Project Alternative would have similar impacts related to land use, population, and housing compared to the Proposed Plan, which would result in less than significant project-level impacts and a less than cumulatively considerable contribution to significant cumulative impacts with implementation of existing State regulations as well as adherence to local policies and regulations.

Noise and Vibration

Buildout of the No Project Alternative would result in significantly fewer housing units than the Proposed Plan and would not meet the City's 2023-2031 RHNA obligations. Therefore, less construction and associated construction noise and vibration would result, meaning reduced impacts would occur under this Alternative as compared to the Proposed Plan. This Alternative would include all City of Monterey General Plan policies and City Code regulations to implement construction noise control measures. Average daily traffic volumes on area roadways would be

reduced under this Alternative as compared with the Proposed Plan because this Alternative would result in fewer housing units. Overall, noise and vibration impacts under this Alternative would be less than significant with implementation of applicable local regulations and reduced compared to the Proposed Plan.

Public Services and Recreation

Buildout of the No Project Alternative would accommodate fewer residents and housing units compared to the Proposed Plan and would not meet the 2023-2031 RHNA requirement. Therefore, this Alternative would generate slightly reduced demand for fire, police, school, and library services compared to the Proposed Plan. Impacts would be less than significant, as under the Proposed Plan. Implementation of the No Project Alternative would not result in the construction of new neighborhood parks; however, the General Plan and City Code have various goals and policies to ensure adequate park and recreational space is provided throughout the city. Therefore, impacts related to parks may be slightly reduced compared to the Proposed Plan, given the lower population under this Alternative, and would be less than significant.

Transportation

The No Project Alternative would involve substantially less housing development but the same amount of employment-related development as the Proposed Plan. Thus, while it would result in a reduction in the severity of the already less than significant per capita VMT impact projected for the Proposed Plan, it would result in a significant employment VMT impact similar to the Proposed Plan. Implementation of Mitigation Measure TRANS-1, under which the City would implement a commute reduction program, would reduce this impact; however, as with the Proposed Plan the reduction would not be 15 percent below existing employment VMT and as such the impact would remain significant and unavoidable even after implementation of all feasible mitigation. The No Project Alternative impact on consistency with circulation system plans would remain less than significant, similar to the Proposed Plan, because other planning documents, such as the General Plan, Specific and Neighborhood Plans, and City's Objective Design Standards would continue to be applicable under this Alternative. Similarly, the impacts on transportation hazards, and emergency access would remain less than significant because the Planning Area would continue to be consistent with applicable codes.

Utilities

The No Project Alternative would have fewer impacts on utilities and service systems than those associated with the Proposed Plan and would not meet the City's 2023-2031 RHNA obligations. The No Project Alternative would result in a reduction of impacts (e.g., need for additional/expanded facilities and services) to the Planning Area. However, utilities and service systems would still need to be accounted and provided for development under the existing General Plan just as with the Proposed Plan. Regardless, all new developments would be subject to review and evaluation for capacity needs and availability of service at the time the project development was brought forward for consideration. Even so, the Alternative would still generate demand that may require additional water supply and facilities to meet the City's demands; therefore, it is conservatively assumed the Alternative would result in a significant and unavoidable impact related to the provision of new and expanded water facilities and water supply.

Wildfire

In comparison with the Proposed Plan, the No Project Alternative has a reduced development footprint within the Planning Area, only needing sites to accommodate the City's previous Housing Element with 511 housing units. As with the Proposed Plan, the development under this Alternative would be required to adhere to State and local plans and regulations, including the City's Safety Element policies. Compliance with these policies will ensure that development in the Planning Area is resilient to the risk of a wildfire under the Alternative. As with the Proposed Plan, impacts from wildfire are considered less than significant for the No Project Alternative. However, impacts would be further reduced under this Alternative since a smaller population under buildout would be less susceptible to wildfire risks and improve evacuation times.

RELOCATED HOUSING GROWTH ALTERNATIVE

Aesthetics and Visual Resources

The Relocated Housing Growth Alternative would result in fewer housing units within the Planning Area compared to the Proposed Plan, including the development of only (industrial) employment uses at Fort Ord. Outside of the Fort Ord area, housing growth would be shifted to the downtown area and key commercial corridors. While the overall amount of development would be less than the Proposed Plan, the design standards and guidelines that the Proposed Plan would adhere to can be assumed to be similar. As with the Proposed Plan, the Relocated Housing Growth Alternative would comply with the General Plan, City Code, and specific plans that regulate development and enforce protection measures for scenic vistas, corridors, and entryways. Overall, impacts related to aesthetics and visual resources would remain less than significant. Given that there are fewer sites identified for development in this Alternative, overall aesthetic impacts would be less than the Proposed Plan.

Agricultural Resources

The Relocated Housing Growth Alternative would result in fewer housing units within the Planning Area compared to the Proposed Plan, including the development of only industrial (employment) uses at Fort Ord. Outside of the Fort Ord area, housing growth would be shifted to the downtown area and key commercial corridors. Under the Relocated Housing Growth Alternative, residential development in the Planning Area would proceed and would include the 50-acre Monterey Peninsula Unified School District site. Because the Relocated Housing Growth Alternative would proceed with housing sites that would convert Farmland to non-agricultural use, the Alternative would have equivalent agricultural resources impacts compared to those of the Proposed Plan. As such, this Alternative would result in the conversion of Farmland classified by the FMMP to non-agricultural use, which is a significant and unavoidable impact.

Air Quality

Impacts under the Relocated Housing Growth Alternative related to air quality during construction would be similar to those of the Proposed Plan but slightly less because the overall amount of development proposed would be decreased. This would result in a smaller duration for construction activities. As with the Proposed Plan, it is likely that the Relocated Housing Growth

Alternative would implement policies or programs that would support or complement pollutant control measures and 2016 Air Quality Management Plan (AQMP) programs. Similar to the Proposed Plan, it is assumed that individual developments would implement similarly applicable mitigation measures presented in Chapter 3.3 of the EIR as necessary to reduce air quality impacts under the Relocated Housing Growth Alternative. Future projects that exceed MBARD's project emissions thresholds would incorporate project-specific mitigation measures (as necessary) and address project-level sources of criteria air pollutants. Operational emissions would be reduced by commute trip reduction programs, substantially reducing on-road PM emissions. However, even with these mitigation measures, individual projects may exceed MBARD's project-level thresholds and cumulatively contribute to the nonattainment of PM_{10} in the NCCAB. Therefore, operational air quality impacts are conservatively assumed to remain significant and unavoidable, but less than that of the Proposed Plan.

Biological Resources

Under the Relocated Housing Growth Alternative, development in the Planning Area would not include housing on sites in the former Fort Ord military base. Fort Ord would develop with industrial (employment) uses as allowed by the current General Plan. Because the Relocated Housing Growth Alternative would still allow development within Monterey, including construction and demolition, the Alternative would have similar biological resources impacts compared to those of the Proposed Plan, but fewer impacts near Fort Ord and South Boundary Road. However, since development is concentrated at greater densities within already developed areas rather than at Fort Ord, impacts on special-status species that may occur near the city limits would be reduced as compared to the Proposed Plan. As such, the Relocated Housing Growth Alternative would result in less than significant impacts related to special-status species and wildlife movement and a less than cumulatively considerable contribution to significant cumulative biological resources impacts. Therefore, applicable mitigation measures presented in Chapter 3.4 of the EIR would be implemented as necessary to reduce biological resources impacts under the Relocated Housing Growth Alternative.

Cultural, Tribal, and Historic Resources

The Relocated Housing Growth Alternative would result in fewer housing units within the Planning Area compared to the Proposed Plan, including the development of only industrial (employment) uses at Fort Ord. Outside of the Fort Ord area, housing growth would be shifted to the downtown area and key commercial corridors. The Highway 68 Area Plan would continue to apply to future development along the Highway 68 corridor including the MPUSD site could accommodate a school, 300 below market rate housing units and parks/open space uses. Excavation, grading, or demolition activities in the Planning Plan would still occur within previously developed areas of the Planning Area and as required for employment uses at Fort Ord. Equivalent to the Proposed Plan, all housing development in the Planning Area would be required to comply with all applicable local regulations, such as the City Code's Historic Zoning Ordinance (Chapter 38, Article 15), as well as the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings. As such, cultural resource impacts under the Relocated Housing Growth Alternative would be equivalent to the Proposed Plan and result in less than significant impacts with mitigation and a less than cumulatively considerable contribution to significant cumulative

cultural resources impacts. Therefore, applicable State and local regulations and mitigation measures presented in Chapter 3.5 of this EIR would be implemented as necessary to reduce cultural, tribal, and historic resources impacts under the Relocated Housing Growth Alternative.

Energy, GHG Emissions, and Climate Change

Given the overall lower amount of development, it is likely that energy usage would be lower under the Relocated Housing Growth Alternative compared to the Proposed Plan. Otherwise, the general land use pattern would remain the same compared to the Proposed Plan. As such, the Alternative would have a slightly lower degree of energy impacts. Under the Relocated Housing Growth Alternative, demolition and construction activities, as well as new operational sources of GHG emissions, would still occur throughout the Planning Area. Given the slightly reduced amount of development compared to the Proposed Plan, this Alternative would thus be expected to have a shorter duration for construction activities, which would result in reduced impacts from construction-related emissions. It is assumed that applicable mitigation measures presented in Chapter 3.6 of the EIR would be implemented as necessary to reduce construction-related GHG emissions impacts under the Relocated Housing Growth Alternative. Operation of land uses supported by the Alternative would generate direct and indirect GHG emissions similar to that of the Proposed Plan. However, given there is slightly less development under this Alternative, GHG emissions would be reduced. However, this operational impact is conservatively assumed to be significant and unavoidable under this Alternative, equivalent to the Proposed Plan.

Overall, greenhouse gas impacts would be lessened compared to the Proposed Plan. However, it is not possible to quantify the precise extent of reductions for the majority of the measures for a plan-level analysis. It is likely that GHG emissions from mobile sources would still conflict with goals of SB 743 under the No Project Alternative and it would have a significant and unavoidable impact.

Geology, Soils, and Seismicity

The Relocated Housing Growth Alternative would result in fewer housing units within the Planning Area compared to the Proposed Plan, including the development of only industrial (employment) uses at Fort Ord. Outside of the Fort Ord area, housing growth would be shifted to the downtown area and key commercial corridors. Excavation, grading, or demolition activities in the Planning Area would still occur at sites identified for development. Since the Relocated Housing Growth Alternative would still allow development at roughly the same intensities as the Proposed Plan, the Alternative would have similar impacts related to geology, soils, and paleontological resources compared with the Proposed Plan. As such, the Relocated Housing Growth Alternative would result in less than significant project-level impacts and a less than cumulatively considerable contribution to significant cumulative impacts with implementation of existing State and local regulations. Applicable mitigation measures GEO-1 and GEO-2 presented in Chapter 3.7 of this EIR would be implemented as necessary to reduce impacts related to geology, soils, and seismicity under the Relocated Housing Growth Alternative.

Hazards and Hazardous Materials

Impacts related to hazards and hazardous materials under the Relocated Housing Growth Alternative would be less than those of the Proposed Plan because construction of housing units

would not occur at the Fort Ord opportunity area, which is in proximity to remediation sites. However, construction impacts under the Alternative would have similar risks, associated with the accidental release of hazardous materials, and would be subject to the same site remediation requirements as the Proposed Plan. As with the Proposed Plan, the construction and operation of housing generally does not involve the release -- accidental or otherwise -- of hazardous materials that would create a significant hazard to the public. Further, existing regulatory programs associated with handling hazardous materials during construction and operation of the site would decrease potential impacts. Therefore, compliance with the appropriate State and federal regulations on transportation and disposal of hazardous materials would lead to a less than significant impact, with impacts similar but reduced as compared to the Proposed Plan. Impacts related to the hazard of wildfire are addressed in the Wildfire section below.

Hydrology and Water Resources

Similar impacts on hydrology, drainage, and water quality would result from the Relocated Housing Growth Alternative compared with the Proposed Plan because excavation, grading, and demolition would still be required for demolition of existing buildings and new construction at the sites. Therefore, the potential impacts under the Relocated Housing Growth Alternative on hydrology, drainage, and water quality would be similar compared to those of the Proposed Plan. With implementation of existing State and local regulations, project-level and cumulative impacts related to hydrology, drainage, and water quality under the Relocated Housing Growth Alternative would be less than significant and roughly equivalent impacts under the Proposed Plan.

Land Use, Population, and Housing

The Relocated Housing Growth Alternative would result in fewer housing units within the Planning Area compared to the Proposed Plan, including the development of only industrial (employment) uses at Fort Ord. Outside of the Fort Ord area, housing growth would be shifted to the downtown area and key commercial corridors. However, like the Proposed Plan, this Alternative would support mixed-use, infill, and higher density development within established areas of the Planning Area. The Relocated Housing Growth Alternative's vision for the Planning Area is consistent with the regional goals for transit-oriented development identified in Moving Forward Monterey Bay 2045, the integrated land use/transportation plan for the three-county Monterey Bay region. Further, all future residential development occurring within the Planning Area under the Relocated Housing Growth Alternative would be required to be evaluated in accordance with local regulations, including the General Plan and City Code.

Neither the Proposed Plan nor the Relocated Housing Growth Alternative introduce physical barriers that would divide an established community. The Proposed Plan and the Alternative would not involve the construction of a linear feature or other barrier and would not remove any means of access or impact mobility. Implementation of the Relocated Housing Growth Alternative would facilitate residential and mixed-use development primarily consisting of infill development on underutilized sites and ADUs within the City limit; it would result in no impact with respect to physically dividing an existing community. Because development of the same character would still occur in the Planning Area, although to a lesser extent, the Relocated Housing Growth Alternative would have similar impact related to land use, population, and housing compared to the Proposed Plan, which would result in less than significant project-level impacts and a less than cumulatively

considerable contribution to significant cumulative impacts with implementation of existing State regulations as well as adherence to local policies and regulations.

Noise and Vibration

The Relocated Housing Growth Alternative would result in fewer housing units within the Planning Area compared to the Proposed Plan, including the development of only industrial (employment) uses at Fort Ord. Outside of the Fort Ord area, housing growth would be shifted to the downtown area and key commercial corridors. Therefore, similar construction and associated construction noise and vibration would result, meaning roughly equivalent impacts would occur under this Alternative as compared to the Proposed Plan. This Alternative would include all City of Monterey General Plan policies and City Code regulations to implement construction noise control measures. As a result, construction noise and vibration levels would be slightly less under this Alternative compared with the Proposed Plan. Overall, noise and vibration impacts under this Alternative would be less than significant with implementation of applicable local regulations and mitigation and roughly equivalent as compared to the Proposed Plan.

Public Services and Recreation

Buildout of the Relocated Housing Growth Alternative would accommodate fewer residents and housing units compared to the Proposed Plan. Therefore, this Alternative would generate slightly less demand for fire, police, school, and library services compared to the Proposed Plan. Impacts would be less than significant, as opposed to less than significant with mitigation under the Proposed Plan due to the elimination of housing sites at the Fort Ord opportunity area. Implementation of the Relocated Housing Growth Alternative would not result in the construction of new neighborhood parks; however, the General Plan and City Code have various goals and policies to ensure adequate park and recreational space is provided throughout the city. The City Code requires developers to dedicate parkland which would help ensure that population growth associated with the Proposed Plan would not result in substantial physical deterioration of existing parks and recreation facilities. However, impacts related to parks may be slightly increased compared to the Proposed Plan given the higher population under this Alternative, but impacts would still be less than significant.

Transportation

This Alternative would involve increased housing development in the western part of the Planning Area, particularly downtown and along key commercial corridors, some of which are major transit routes. Increased density along transit routes would be expected to increase transit ridership; however, this Alternative would result in approximately 27 percent fewer housing units than the Proposed Plan but the same amount of job growth. As such, the jobs-housing ratio would increase to 1.37 under this Alternative as compared 1.26 under the Proposed Plan, meaning that more people employed in the Planning Area would need to commute to work from outside Monterey each day, leading to a slight increase in VMT. A qualitative assessment of this Alternative conducted by transportation engineers Kimley-Horn and Associates estimates that this Alternative would result in a less than significant per capita VMT impact as with the Proposed Plan, and a similarly significant and unavoidable employment VMT impact. Under the Relocated Housing Growth Alternative, the impact on consistency with circulation system plans would remain less than

significant, similar to the Proposed Plan, with adherence to existing regulations and codes. Similarly, the impacts on transportation hazards and emergency access would remain less than significant because the Planning Area would continue to be consistent with applicable codes.

Utilities and Service Systems

The Relocated Housing Growth Alternative would result in reduced demand for utilities and service systems than under the Proposed Plan. Notably, it would avoid a significant and unavoidable impacts related to the availability of water supply from the Marina Coast Water District at Fort Ord; however, as with the Proposed Plan it would result in a significant and unavoidable impact related to the availability of water supply from Cal-Am, as it cannot be said with certainty that new sources of supply beyond groundwater will reliably be available to serve projected need from the Relocated Housing Growth Alternative in 2031. The Relocated Housing Growth Alternative would result in a reduction of impacts (e.g., need for additional/expanded facilities and services) to the Planning Area.

Wildfire

In comparison with the Proposed Plan, the Relocated Housing Growth Alternative has the same number of housing units as the Proposed Plan, with no housing units concentrated in the Fort Ord opportunity area. As with the Proposed Plan, the development under this Alternative would be required to adhere to State and local plans and regulations, including the City's Safety Element policies. Compliance with these policies will ensure that development in the Planning Area is resilient to the risk of a wildfire under the Alternative. However, as with the Proposed Plan, Caltrans does not currently have a plan or funding in place to temporarily increase evacuation capacity at constrained locations. As such, it cannot be determined at this time whether evacuation impacts will in fact be mitigated to a less than significant level. Therefore, overall, this impact is considered significant and unavoidable for the Relocated Housing Growth Alternative, and impacts would be equivalent to the Proposed Plan.

INCREASED WORKFORCE HOUSING ALTERNATIVE

Aesthetics and Visual Resources

Under the Increased Workforce Housing Alternative, development in the Planning Area would proceed with more housing units throughout Monterey than envisioned under the Proposed Plan, with exception of the 50-acre MPUSD site. While the overall amount of housing development would be more than the Proposed Plan, the Increased Workforce Housing Alternative would comply with the General Plan, City Code, and specific plans that regulate development and enforce protection measures for scenic vistas, corridors, and entryways. Overall, impacts related to aesthetics and visual resources would remain less than significant. Given that there are more units identified for development in this Alternative, overall aesthetic impacts would be roughly equivalent or more than the Proposed Plan.

Agricultural Resources

Under the Increased Workforce Housing Alternative, development in the Planning Area would proceed with more housing units throughout Monterey than envisioned under the Proposed Plan, with exception of the 50-acre MPUSD site. Under the Proposed Plan, development of housing on the 50-acre site would result in the conversion of Farmland classified by the FMMP to non-agricultural use, which is a significant and unavoidable impact. Under the Increased Workforce Housing Alternative, residential development in the Planning Area would not proceed with the Highway 68 Area Plan including the 50-acre Monterey Peninsula Unified School District site. Because this Alternative would not proceed with housing sites that would convert grazing land to non-agricultural use, the Alternative would not have similar agricultural resources impacts compared to those of the Proposed Plan. As such, agricultural resources impacts under the Increased Workforce Housing Alternative would result in no impact related to conversion of Farmland to non-agricultural use, as opposed to the significant and unavoidable impact under the Proposed Plan.

Air Quality

Impacts under the Increased Workforce Housing Alternative related to air quality during construction would be similar to those of the Proposed Plan. Construction-related impacts would increase because the overall amount of development proposed would be increased. However, operational air quality impacts would be substantially reduced because of increased walkability and reduced automobile commutes with a 1:1 jobs-housing ratio. As with the Proposed Plan, it is likely that the Increased Workforce Housing Alternative would implement policies or programs that would support or complement pollutant control measures and 2016 Air Quality Management Plan (AQMP) programs.

Similar to the Proposed Plan, it is assumed that individual developments would implement similarly applicable mitigation measures presented in Chapter 3.3 of the EIR as necessary to reduce air quality impacts under the Increased Workforce Housing Alternative. Future projects that exceed MBARD's project emissions thresholds would incorporate project-specific mitigation measures (as necessary) and address project-level sources of criteria air pollutants. Operational emissions would be reduced by commute trip reduction programs, substantially reducing on-road PM emissions. However, even with these mitigation measures, individual projects may exceed MBARD's project-level thresholds and cumulatively contribute to the nonattainment of PM_{10} in the NCCAB. Therefore, operational air quality impacts are conservatively assumed to remain significant and unavoidable, but roughly equivalent to that of the Proposed Plan.

Biological Resources

Under the Increased Workforce Housing Alternative, development in the Planning Area would proceed with more housing units as envisioned under the Proposed Plan, with exception of the 50-acre MPUSD site. Because the Increased Workforce Housing Alternative would still allow development within Monterey, including construction and demolition, the Alternative would have similar biological resources impacts compared to those of the Proposed Plan, but reduced impacts near the 50-acre MPUSD site and Highway 68 area. However, since development is concentrated at greater densities within the city and at Fort Ord, impacts on special-status species that may reside

near the Highway 68 area would be less than that of the Proposed Plan. As such, biological resource impacts under the Increased Workforce Housing Alternative would result in less than significant impacts related to special-status species and wildlife movement and a less than cumulatively considerable contribution to significant cumulative biological resources impacts. Therefore, applicable mitigation measures presented in Chapter 3.4 of the EIR would be implemented as necessary to reduce biological resources impacts under the Increased Workforce Housing Alternative.

Cultural, Tribal, and Historic Resources

Under the Increased Workforce Housing Alternative, development in the Planning Area would proceed with more housing units as envisioned under the Proposed Plan, with exception of the 50-acre MPUSD site. Excavation, grading, or demolition activities in the Planning Plan would still occur within previously developed areas of the Planning Area. Equivalent to the Proposed Plan, all housing development in the Planning Area would be required to comply with all applicable local regulations, such as the City Code's Historic Zoning Ordinance (Chapter 38, Article 15), as well as the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings. As such, cultural resource impacts under the Increased Workforce Housing Alternative would result in less than significant impacts with mitigation and a less than cumulatively considerable contribution to significant cumulative cultural resources impacts. Therefore, applicable State and local regulations and mitigation measures presented in Chapter 3.5 of this EIR would be implemented as necessary to reduce cultural, tribal, and historic resources impacts under the Increased Workforce Housing Alternative.

Energy, Greenhouse Gas Emissions, and Climate Change

Given the overall increased amount of development, it is likely that energy usage would be increased under the Increased Workforce Housing Alternative compared to the Proposed Plan. However, the Increased Workforce Housing Alternative would promote a land use strategy that is higher density, which would result in greater energy efficiency overall for Planning Area residents and operations as compared to the Proposed Plan. Even so, overall impacts would be less than significant. Compared to the Proposed Plan, the Increased Workforce Housing Alternative would have a greater degree of energy-related impacts.

Under the Increased Workforce Housing Alternative, development in the Planning Area would proceed with more housing units as envisioned under the Proposed Plan, with exception of the 50-acre MPUSD site. Demolition and construction activities would still occur throughout the Planning Area. This Alternative would thus be expected to have a similar duration for construction activities, which would result in roughly equivalent or greater impacts from construction-related emissions. Operation of land uses supported by the Alternative would generate direct and indirect GHG emissions similar to that of the Proposed Plan. However, given that development would be more concentrated within commercial corridors in this Alternative, per capita GHG emissions may be reduced due to more compact development patterns compared to the Proposed Plan. Applicable mitigation measures presented in Chapter 3.6 of the EIR would be implemented as necessary to reduce construction-related and operational GHG emissions impacts under the Increased Workforce Housing Alternative.

Overall, greenhouse gas impacts would be increased compared to the Proposed Plan with greater amounts of development. However, it is not possible to quantify the precise extent of reductions for the majority of the measures for a plan-level analysis. Even so, given that the alternative would result in an evenly balanced 1:1 jobs housing ratio, which would reduce the need for many employed in Monterey to commute long distances by car to work each day, GHG emissions from mobile sources would be reduced. However, since it is conservatively assumed that the Increased Workforce Housing Alternative would result in significant and unavoidable employment VMT impact, it is also assumed that GHG emissions from mobile sources would still conflict with goals of SB 743 and it would have a significant and unavoidable impact, albeit one with reduced severity compared with the Proposed Plan.

Geology, Soils, and Seismicity

Under the Increased Workforce Housing Alternative, development in the Planning Area would proceed with more lower income housing units throughout Monterey than envisioned under the Proposed Plan, with exception of the 50-acre MPUSD site. Excavation, grading, or demolition activities in the Planning Area would still occur at sites identified for development. Since the Increased Workforce Housing Alternative would still allow development in a similar land use pattern and just at higher intensities than the Proposed Plan, the Alternative would have similar impacts related to geology, soils, and paleontological resources compared with the Proposed Plan. As such, the Increased Workforce Housing Alternative would result in less than significant project-level impacts and a less than cumulatively considerable contribution to significant cumulative impacts with implementation of existing State and local regulations. Applicable mitigation measures presented in Chapter 3.7 of this EIR would be implemented as necessary to reduce impacts related to geology, soils, and seismicity under the Increase Workforce Housing Alternative.

Hazards and Hazardous Materials

Impacts related to hazards and hazardous materials under the Increased Workforce Housing Alternative would be similar to those of the Proposed Plan because construction would occur at the Fort Ord opportunity area, which is in proximity to remediation sites. However, construction impacts under the Alternative would have similar risks, associated with the accidental release of hazardous materials, and would be subject to the same site remediation requirements as the Proposed Plan. As with the Proposed Plan, the construction and operation of housing generally does not involve the release -- accidental or otherwise -- of hazardous materials that would create a significant hazard to the public. Further, existing regulatory programs associated with handling hazardous materials during construction and operation of the site would decrease potential impacts. Therefore, compliance with the appropriate State and federal regulations on transportation and disposal of hazardous materials would lead to a less than significant impact, with impacts similar to the Proposed Plan. Impacts related to the hazard of wildfire are addressed in the Wildfire section below.

Hydrology and Water Quality

Similar impacts on hydrology, drainage, and water quality would result from the Increased Workforce Housing Alternative compared with the Proposed Plan because excavation, grading, and demolition would still be required for demolition of existing buildings and new construction

at the sites. Therefore, the potential impacts under the Increased Workforce Housing Alternative on hydrology, drainage, and water quality would be similar compared to those of the Proposed Plan. With implementation of existing State and local regulations, project-level and cumulative impacts related to hydrology, drainage, and water quality under the Increased Workforce Housing Alternative would be less than significant and roughly equivalent impacts under the Proposed Plan.

Land Use, Population, and Housing

Under the Increased Workforce Housing Alternative, development in the Planning Area would proceed as envisioned under the Proposed Plan, with the addition of the development of more housing units throughout the Planning Area. As noted above, the Increased Workforce Housing alternative would fulfill the City's RHNA obligations of accommodating their share of income categories.The Increased Workforce Housing Alternative's vision for the Planning Area is consistent with the regional goals for transit-oriented development identified in Moving Forward Monterey Bay 2045, the integrated land use/transportation plan for the three-county Monterey Bay region. Further, all future residential development occurring within the Planning Area under the Increased Workforce Housing Alternative would be required to be evaluated in accordance with local regulations, including the General Plan and City Code.

Neither the Proposed Plan nor the Increased Workforce Housing Alternative would introduce physical barriers that would divide an established community. The Proposed Plan and the Alternative would not involve the construction of a linear feature or other barrier and would not remove any means of access or impact mobility. Implementation of the Increased Workforce Housing Alternative would facilitate residential and mixed-use development primarily consisting of infill development on underutilized sites within the city limit; it would result in no impact with respect to physically dividing an existing community. Because development of the same character would still occur in the Planning Area, at a slightly higher density, the Increased Workforce Housing Alternative would have a similar impact related to physical barriers, which would result in less than significant project-level impacts. The Alternative would have similar cumulative impacts with implementation of existing State regulations, as well as adherence to local policies.

Noise and Vibration

Buildout of the Increased Workforce Housing Alternative would result in more development of housing units as the Proposed Plan, except for the housing development at the 50-acre MPUSD. Therefore, increased short-term construction and associated construction noise and vibration would result, meaning slightly increased impacts would occur under this Alternative as compared to the Proposed Plan. This Alternative would include all City of Monterey General Plan policies and City Code regulations to implement construction noise control measures, as well as mitigation measures proposed in Chapter 3.11 of this EIR. Overall, noise and vibration impacts under this Alternative would be less than significant with implementation of applicable local regulations and mitigation and slightly increased as compared to the Proposed Plan.

Public Services and Recreation

Buildout of the Increased Workforce Housing Alternative would accommodate more residents and housing units compared to the Proposed Plan. Therefore, this Alternative would generate

substantially more demand for fire, police, school, and library services compared to the Proposed Plan. However, given the increase in development, a new public safety facility and fire station would still be needed under the Alternative, and impacts would still be similar to the Proposed Plan and less than significant with mitigation. Implementation of the Increased Workforce Housing Alternative could result in the construction of new neighborhood parks; however, the General Plan and City Code have various goals and policies to ensure adequate park and recreational space is provided throughout the City. The City Code requires developers to dedicate parkland which would help ensure that population growth associated with the Proposed Plan would not result in substantial physical deterioration of existing parks and recreation facilities. As such, impacts related to parks may be slightly increased compared to the Proposed Plan given the higher population under this Alternative, but impacts would still be less than significant.

Transportation

The Increased Workforce Housing Alternative would substantially increase the supply of housing within the Planning Area, catering in particular to the needs of the local workforce. It would result in an evenly balanced 1:1 jobs housing ratio, which would reduce the need for many employed in Monterey to commute long distances by car to work each day. Additionally, by locating housing in and adjacent to major employment centers within Monterey, including the downtown, Lighthouse, North Fremont, and Garden Road opportunity areas as well as the Ryan Ranch Business Park, this Alternative would likely result in reduced internal trip length and volume. A qualitative assessment of this Alternative conducted by transportation engineers Kimley-Horn and Associates estimates that this Alternative would result in a less than significant per capita VMT impact as with the Proposed Plan, and an improved employment VMT result. Given that the assessment was qualitative and VMT modeling was not performed for the Increased Workforce Housing Alternative, a conclusive finding for employment VMT cannot be made. Therefore, conservatively it is assumed that the Increased Workforce Housing Alternative would also result in significant and unavoidable employment VMT impact, albeit one with reduced severity as compared to the Proposed Plan. Under the Increased Workforce Housing Alternative, the impact on consistency with circulation system plans would remain less than significant, similar to the Proposed Plan, with adherence to existing regulations and codes. Similarly, the impacts on transportation hazards and emergency access would remain less than significant because the Planning Area would continue to be consistent with applicable codes.

Utilities

As discussed in Section 3.14, Utilities and Service Systems, there could be sufficient water in the Cal-Am supplies if planned new sources come online. However, it cannot be said with certainty that these new sources will be operational in the future as envisioned; thus, impacts on water supply under the Proposed Plan would be significant and unavoidable. However, there would be sufficient wastewater treatment, power and telecommunications, and solid waste disposal capacity to serve development under the Proposed Plan in 2031. Because the Increased Workforce Housing Alternative would involve more development than the Proposed Plan, it would further exacerbate pressure on Cal-AM and MCWD water supplies and impacts would remain significant and unavoidable under this Alternative, though there would be sufficient wastewater treatment, power and telecommunication, and solid waste disposal capacity for development pursuant to this Alternative. Further, subsequent developments would still be required to comply with applicable

State and local regulations as well as related General Plan policies, which require water conservation policies and programs to cut water demand. Therefore, overall, this Alternative would result in a significant and unavoidable impact with respect to utilities and services systems and would have a substantially increased impact as compared to the Proposed Plan, given the greater amount of development and associated total water demand involved.

Wildfire

In comparison with the Proposed Plan, the Increased Workforce Housing has more housing units than the Proposed Plan, only with no units within the 50-acre MPUSD site and overall increased housing throughout the city. The MPUSD site is located adjacent to a Very High Fire Hazard Severity Zone (VHFHSZ), and as such wildfire risks would be reduced with no development at this site under this Alternative. However, evacuation impacts may increase with increased development under this Alternative. As with the Proposed Plan, the development under this Alternative would be required to adhere to State and local plans and regulations, including the City's Safety Element policies, which would require developments to be built to a higher standard of fire protection. Compliance with these policies will ensure that development in the Planning Area is resilient to the risk of a wildfire under the Alternative. However, as with the Proposed Plan, Caltrans does not currently have a plan or funding in place to temporarily increase evacuation capacity at constrained locations. As such, it cannot be determined at this time whether evacuation impacts will in fact be mitigated to a less than significant level. Therefore, overall, this impact is considered significant and unavoidable for the Alternative, and impacts would be roughly equivalent to the Proposed Plan.

4.4 Environmentally Superior Alternative

The CEQA Guidelines Section 15126.6 requires the identification of an environmentally superior alternative among the alternatives analyzed in an EIR. If the No Project Alternative is identified as the environmentally superior alternative, the guidelines require another environmentally superior alternative to be identified.

Table 4-2 summarizes the alternatives' overall environmental impacts for each topic presented in Section 4.3. For the Proposed Plan, 10 impacts were expected to be significant and unavoidable, 10 impacts were expected to be less than significant with mitigation, and 46 impacts were expected to be less than significant.

For the No Project Alternative, eight impacts were expected to be significant and unavoidable, six impacts were expected to be less than significant with mitigation, and 52 impacts were expected to be less than significant. For the Relocated Housing Growth Alternative, 10 impacts were expected to be significant and unavoidable, nine impacts were expected to be less than significant with mitigation, and 47 impacts were expected to be less than significant. Similarly, for the Increased Workforce Housing Alternative, nine impacts were expected to be significant and unavoidable, 10 impacts were expected to be less than significant with mitigation, and 47 impacts were expected to be less than significant.

The No Project Alternative reduces the greatest number of environmental impacts. Since the CEQA guidelines require another environmentally superior alternative other than the No Project

Alternative to be identified, the Increased Workforce Housing Alternative would be the environmentally superior alternative. This is because it avoids the Proposed Plan's significant and unavoidable impact pertaining to agricultural resources and reduces the severity of significant and unavoidable impacts related to air quality. However, the Increased Workforce Housing Alternative would not meet all the project objectives. While it would support most of the project objectives, including those related to housing production, fair housing access, and addressing the needs of disadvantaged segments of the population, it would not support local economic vitality to the same extent as the Proposed Plan. The Relocated Housing Growth Alternative also has nominally reduced the number of impacts compared to the Proposed Plan, although it would have a worse impact on an already significant and unavoidable impact on water supply. This Alternative also would not meet the City's RHNA obligations of accommodating their share of Very Low and Low (VL/L) Income housing units.

Table 4-2: Summary of Impacts for Alternatives

Impact	*Level of Significance*			
	Proposed Plan	*No Project Alternative*	*Relocated Housing Growth Alternative*	*Increased Workforce Housing Alternative*
3.1 Aesthetics and Visual Resources				
3.1-1 Scenic Vistas	LTS	LTS, -	LTS, =	LTS, =
3.1-2 State Scenic Highways	LTS	LTS, -	LTS, -	LTS, -
3.1-3 Public Views	LTS	LTS, -	LTS, -	LTS, -
3.1-4 Light and Glare	LTS	LTS, -	LTS, -	LTS, -
3.2 Agricultural Resources				
3.2-1 Convert Farmland (FMMP)	NI	NI, =	NI, =	NI, =
3.2-2 Williamson Act	NI	NI, =	NI, =	NI, =
3.2-3 Farmland Conversion	SU	NI, -	SU, =	NI, -
3.3 Air Quality				
3.3-1 Air Quality Plan	SU	SU, -	SU, -	SU, =
3.3-2 Increase in Criteria Pollutant	SU	SU, -	SU, -	SU, =
3.3-3 Sensitive Receptors	SU	SU -	SU -	SU =
3.3-4 Odors	LTS	LTS, =	LTS, =	LTS, =
3.4 Biological Resources				
3.4-1 Special-Status Species	LTSM	LTSM, -	LTSM, -	LTSM, =
3.4-2 Sensitive Habitat	LTS	LTS, -	LTS, =	LTS, =
3.4-3 Wetlands	LTS	LTS, -	LTS, =	LTS, =
3.4-4 Wildlife Corridors	LTS	LTS, -	LTS, =	LTS, =
3.4-5 Policies and Ordinances	LTS	LTS, -	LTS, =	LTS, =
3.4-6 HCPs	LTS	NI, -	NI, -	LTS, =
3.5 Cultural, Tribal, and Historic Resources				

Table 4-2: Summary of Impacts for Alternatives

Impact	*Level of Significance*			
	Proposed Plan	*No Project Alternative*	*Relocated Housing Growth Alternative*	*Increased Workforce Housing Alternative*
3.5-1 Historic Resources	LTSM	LTSM, =	LTSM, =	LTSM, =
3.5-2 Archaeological Resources	LTSM	LTSM, =	LTSM, =	LTSM, =
3.5-3 Human Remains	LTSM	LTSM, =	LTSM, =	LTSM, =
3.5-4 Tribal Cultural Resources	LTSM	LTSM, =	LTSM, =	LTSM, =
3.6 Energy, Greenhouse Gas Emissions, and Climate Change				
3.6-1 Generate GHG Emissions	SU	SU, -	SU, =	SU, +
3.6-2 Conflict with an Applicable Plan, Policy, or Regulation	SU	SU, -	SU, =	SU, -
3.6-3 Wasteful, Inefficient, and Unnecessary Energy	LTS	LTS, -	LTS, =	LTS, +
3.6-4 Conflict with Renewable Energy or Energy Efficiency	LTS	LTS, =	LTS, =	LTS, =
3.7 Geology, Soils, and Seismicity				
3.7-1 Seismic Hazards	LTS	LTS, =	LTS, =	LTS, =
3.7-2 Soil Erosion	LTS	LTS, -	LTS, =	LTS, =
3.7-3 Unstable Soils / Expansive Soils	LTS	LTS, -	LTS, =	LTS, =
3.7-4 Expansive Soils	LTS	LTS, -	LTS, =	LTS, =
3.7-5 Septic Systems	LTS	LTS, =	LTS, =	LTS, =
3.7-6 Paleontological Resources	LTSM	LTSM, =	LTSM, =	LTSM, =
3.8 Hazards and Hazardous Materials				
3.8-1 Transport, Use, or Disposal of Hazardous Materials	LTS	LTS, -	LTS, =	LTS, =
3.8-2 Release of Hazardous Materials	LTS	LTS, -	LTS, =	LTS
3.8-3 Hazardous Waste near School	LTS	LTS, -	LTS, =	LTS
3.8-4 Hazardous Materials Site	LTSM	LTS, -	LTS, -	LTSM, =
3.8-5 Airport	LTS	LTS, -	LTS, -	LTS, =
3.8-6 Emergency and Evacuation	LTS	LTS, -	LTS, -	LTS, =
3.8-7 Wildfire	LTSM	LTS	LTSM	LTSM, =
3.9 Hydrology and Water Quality				
3.9-1 Water Quality Standards	LTS	LTS, -	LTS, =	LTS, =
3.9-2 Groundwater Supplies	LTS	LTS, -	LTS, =	LTS, =
3.9-3 Drainage Pattern	LTS	LTS, -	LTS, =	LTS, =
3.9-4 Flood, Tsunami, Seiche Hazard	LTS	LTS, -	LTS, =	LTS, =

Table 4-2: Summary of Impacts for Alternatives

Impact	*Level of Significance*			
	Proposed Plan	*No Project Alternative*	*Relocated Housing Growth Alternative*	*Increased Workforce Housing Alternative*
3.9-5 Water Quality Control Plan	LTS	LTS, -	LTS, =	LTS, =
3.10 Land Use, Population, and Housing				
3.10-1 Divide Community	NI	NI, =	NI, =	NI, =
3.10-2 Conflict with Any Land Use Plan	NI	NI, =	NI, =	NI, =
3.10-3 Growth Inducement	LTS	LTS, -	LTS, =	LTS, +
3.10-4 Displacement	LTS	LTS, -	LTS, =	LTS, +
3.11 Noise and Vibration				
3.11-1 Noise Standards	LTS	LTS, -	LTS, =	LTS, +
3.11-2 Vibration	LTS	LTS, -	LTS, =	LTS, +
3.11-3 Airports	LTS	LTS, -	LTS, =	LTS, +
3.12 Public Services and Recreation				
3.12-1 Fire, Police, Schools, Parks, or Other Public Facilities	LTSM	LTS, -	LTSM, =	LTSM, +
3.12-2 Use of Neighborhood, Regional or Recreational Facilities	LTS	LTS, -	LTS, =	LTS, =
3.12-3 Construction or Expansion	LTS	LTS, -	LTS, =	LTS, =
3.13 Transportation				
3.13-1 Circulation System Plan	LTS	LTS, -	LTS, =	LTS, =
3.13-2 VMT	SU	SU, -	SU, =	SU, -
3.13-3 Traffic Hazards	LTS	LTS, -	LTS, =	LTS, =
3.13-4 Emergency Access	LTS	LTS, -	LTS, =	LTS, =
3.14 Utilities and Service Systems				
3.14-1 Relocation or Expansion of Utilities	SU	SU, -	SU, -	SU, +
3.14-2 Water Supply	SU	SU, -	SU, -	SU, +
3.14-3 Wastewater Treatment	LTS	LTS, -	LTS, -	LTS, +
3.14-4 Solid Waste Reduction Goals	LTS	LTS, -	LTS, -	LTS, +
3.14-5 Conflict with Solid Waste Regulations	LTS	LTS, -	LTS, -	LTS, +
3.15 Wildfire				
3.15-1 Emergency Response/Evacuation	SU	LTS, -	SU, =	SU, -
3.15-2 Wildfire Risks	LTS	LTS, -	LTS, =	LTS, -

Table 4-2: Summary of Impacts for Alternatives

Impact	*Level of Significance*			
	Proposed Plan	*No Project Alternative*	*Relocated Housing Growth Alternative*	*Increased Workforce Housing Alternative*
3.15-3 Infrastructure	LTSM	LTS, -	LTSM, =	LTSM, -
3.15-4 Flooding or Landslides	LTS	LTS, -	LTS, =	LTS, -

Notes:
NI = No Impact
LTS = Less than Significant
LTSM = Less than Significant with Mitigation
SU = Significant and Unavoidable
+/-/= = Impact of the alternative is greater than, less than, or similar to the impact of the Proposed Plan

5 CEQA Required Conclusions

This section presents a summary of the impacts of the Proposed Plan in several subject areas specifically required by CEQA, including growth-inducing impacts, cumulative impacts, significant and unavoidable impacts, and significant irreversible environmental changes. These findings are based, in part, on the analysis provided in Chapter 3: Environmental Settings and Impacts.

5.1 Growth-Inducing Impacts

CEQA Guidelines require that an EIR "discuss the ways in which the Proposed Plan could foster economic or population growth, or the construction of additional housing, either directly or indirectly" (CEQA Guidelines Section 15126.2(e)). This analysis must also consider the removal of obstacles to population growth, such as improvements in the regional transportation system. Growth-inducing impacts, such as those associated with job increases that might affect housing and retail demand in surrounding jurisdictions over an extended time period, are difficult to assess with precision, since future economic and population trends may be influenced by unforeseeable events such as business development cycles and natural disasters. Moreover, long-term changes in economic and population growth are often regional in scope; they are not influenced solely by changes or policies related to a single city or development project, particularly in an urbanized region such as the Monterey Bay Area. Business trends are influenced by economic conditions throughout the state and country, as well as around the world.

Another consideration is that the creation of growth-inducing potential does not automatically lead to growth. Growth occurs through capital investment in new economic opportunities by the private or public sector. These investment patterns reflect, in turn, the desires of investors to mobilize and allocate their resources to development in particular localities and regions. These factors, combined with the regulatory authority of local governments, mediate the growth-inducing potential or pressure created by a Proposed Plan. Despite these limitations on the analysis, it is still possible to qualitatively assess the general potential growth-inducing impacts of the Proposed Plan.

PROJECTED GROWTH

The Proposed Plan is a targeted update to the Housing, Land Use, Safety, and Circulation Elements of the City of Monterey General Plan intended to respond to emerging issues and new State laws and guide development and conservation within the Planning Area through 2031. The Plan would largely not involve extending infrastructure, utilities or public services outside of the City limits; on the contrary, it would concentrate new residential and employment development primarily into key opportunity areas of the city, including downtown, the Lighthouse area, Pacific/Munras/Cass,

Del Monte Avenue, Garden Road/Airport/Highway 68, and Ryan Ranch/Fort Ord. Most of these areas are already served by existing infrastructure, apart from Highway 68 sites and Fort Ord which would consist of greenfield and brownfield development. Outside of these areas, the existing land use pattern would be preserved, with some infill development anticipated on vacant sites in residential neighborhoods.

Population

The current population within the city is estimated to be 26,845. With the Proposed Plan, the city would accommodate a total population of approximately 36,949 people, representing a 38 percent increase from the existing population. This represents an average annual growth rate of 4.7 percent over eight years in the Planning Area, along with an increase in the number of housing units and jobs by 5,787 units and 1,991 jobs, respectively.

Table 5-1: Projected Buildout (2031)

	Existing (2023)	*Net New*	*Future (2031)*
Population	26,845	10,104	36,949
Housing Units	13,825	5,787	19,612
Jobs	22,246	1,991	24,237
Jobs - Housing Ratio	1.60	--	1.24

Source:AMBAG, 2022; DOF, 2023, US Census, 2023.

Although the population within the Planning Area is projected to increase substantially, the Proposed Plan is largely consistent with the overarching regional growth goals identified by the Association of Monterey Bay Area Governments (AMBAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the planning period. To reduce greenhouse gas emissions, AMBAG's Moving Forward Monterey Bay 2045 promotes compact mixed-use infill development within walkable/bikeable neighborhoods that are close to public transit, jobs, schools, shopping, parks, recreation, and other amenities. To ensure consistency, the Proposed Plan incorporates numerous strategies to accommodate infill development and focus new growth so as to balance levels of employment and housing within the community to reduce commute times, improve air quality, and provide more opportunities for those who work in Monterey to live locally. It also incorporates "complete streets" strategies and seeks to promote safety and security along transit access routes. Additionally, the Proposed Plan would support the performance outcomes identified in the MTP/SCS, in that it would improve per capita VMT, increase the percentage of the population in proximity to transit, and promote active transportation (See Section 3.10: *Land Use, Population, and Housing* Table 3.10-4).

The Proposed Plan is also consistent with the General Plan's sustainable growth goals. The proposed Land Use Element builds on the key themes of the 2005 General Plan with a policy framework and land use classifications that seek to establish a compact, sustainable land use and development pattern and to create and nurture a series of distinctive, walkable, mixed-use neighborhoods in Monterey. A new Mixed Use Neighborhood classification which would apply to locations identified in the existing General Plan to accommodate high density infill housing, including the Downtown, North Fremont, and Lighthouse Avenue Specific Plan Areas, as well as in Fort Ord/Ryan Ranch opportunity area. In addition, while the Highway 68 sites would introduce

greenfield development in the Planning Area, the Highway 68 Area Plan Update would facilitate development of mixed income housing, access and infrastructure improvements, and neighborhood services and amenities on the site. Portions of the Monterey Peninsula Unified School District (MPUSD) Site would be identified for low-medium density housing, high density housing, and open space preservation. The Fort Ord/Ryan Ranch Specific Plan would also foster the creation of a mixed-use village on a portion of the site to provide housing, jobs, schools, shops, services and recreation for future residents while also preserving carefully selected areas of natural open space and habitat. By guiding the majority of the City's growth and development within the Planning Area, infill and clustered development would be prioritized, and public space areas would be preserved and enhanced; by nature, the Project would therefore reduce potential for uncontrolled growth and associated impacts.

Increase in Regional Housing Demand

In the urbanized context of the Monterey Bay Area, housing and employment demand are somewhat fluid across municipalities. As the employment base in the Monterey Bay Area continues to increase, more people may be drawn to live in Monterey even if they work in other nearby cities, or vice versa. As a result, housing demand may continue to increase in Monterey and within the Planning Area. AMBAG's Regional Housing Needs Assessment (RHNA) attempts to balance regional housing demand across Monterey County cities, and all municipalities are required to provide a "fair share" of housing. According to the Final 2023–2031 RHNA, AMBAG has determined that Monterey's fair share of regional housing need for the 2023 to 2031 period would be 3,654 units. To ensure that housing is available to meet the needs of future residents under the Proposed Plan, the Proposed Plan involves updating its Housing Element to accommodate its assessed share of the regional housing need and provide policies and programs to facilitate construction and address other local housing needs.

Jobs/Housing Ratio

A desirable city-wide jobs-to-housing ratio is often defined as a ratio greater than 1.0 but less than 1.5. Because most households have more than one wage earner, ratios below 1.0 suggest that residents are required to commute to jobs outside of their area of residence, and ratios greater than 1.5 suggest that employers are not able to house their workers within the jurisdiction, requiring workers to commute into the area. Theoretically, a balanced jobs-to-housing ratio would reduce the need for people to commute in or out of the city for work. In reality, the match of education, skills, and interests is not always accommodated within the boundaries of one community, and regional interdependencies almost always result in at least some inter-city commuting. A city cannot dictate the residential location of future employees who may work in the Planning Area. Further, a city's center would be expected to have a somewhat higher jobs-to-housing ratio than the city as a whole.

Based on the estimated buildout of the Proposed Plan, the jobs-to-housing balance in the Planning Area in 2031 would shift from 1.60 in 2023 to 1.24 in 2031, as shown in Table 5-1. Given that the job-to-housing ratio is projected to be 1.24 for Monterey in 2031 under the Proposed Plan buildout, and that concentrating employment uses near opportunity areas with planned housing growth is consistent with regional and statewide land use and sustainability goals, the estimated jobs-to-

housing ratio in the Planning Area in 2031 would not be expected to induce substantial new unplanned residential growth in areas surrounding the Planning Area.

Public Facilities and Services

Public services for the Planning Area, including police, fire protection, schools, libraries, and parks and recreation, are currently provided by the Monterey Police Department (MPD), Monterey Fire Department (MFD), Monterey Peninsula Unified School District (MPUSD), Monterey Public Library, and the City of Monterey Parks and Recreation Department, respectively. Development under the Proposed Plan would be in compliance with all applicable codes for fire safety and emergency access. Based on projected growth, the need for a new public safety facility is projected, which would include MPD, the Monterey Fire Department Administrative Facility, Monterey Fire Station 11, an Emergency Operations Center, an additional resource building, and parking for the co-located buildings. In addition, the Library Board endorsed a 31,000-square-foot renovation and expansion of the Monterey Public Library at its current location, which would help to address the demand for library services generated by the Plan.[1]

Under the Proposed Plan, MPUSD anticipates that there would be a need for new/expanded school facilities in the district. However, development under the Proposed Plan would also be required to comply with SB 50, which mandates statutory school facilities fees for residential developments. Compliance with SB 50 would financially offset impacts on MPUSD capacity and would provide funding for potential future school facility development needs associated with the Proposed Plan-related population increase. As future buildout occurs under the Proposed Plan, the City will evaluate operations and deployment of services to efficiently use resources, ensure sufficient staffing to serve all new development and associated population growth in the Planning Area, and monitor the need for new facilities or additional equipment needed to provide adequate public services to future and existing residents.

DIRECT AND INDIRECT GROWTH

As described above, the Proposed Plan facilitates growth in the Planning Area, and this direct growth is analyzed throughout this EIR. Impacts from direct growth on infrastructure such as public services and utilities, the transportation system, and natural resources are identified, based on the buildout of the Proposed Plan. Some of the identified effects of growth are significant and unavoidable. In general, future development under the Proposed Plan would be subject to additional site-specific environmental review under CEQA, with tiering and streamlining opportunities as provided for under State law.

Indirect growth can result from the construction of infrastructure, such as the extension of utilities or the construction of new roadways connecting urban centers to greenfield areas. In such cases, this extension of infrastructure to serve one property can facilitate the subsequent development of other intervening properties, effectively inducing additional growth indirectly. However, any greenfield or brownfield development envisioned at the Highway 68 sites and Fort Ord would still

[1] City of Monterey. 2020. Monterey Public Library Feasibility Study. Available: https://monterey.org/MPLibrary/Documents/Get%20Involved/Library%20Facility%20Feasibility%20Study.pdf. Accessed: August 30, 2023

be located within the City limits and prioritize clustered and mixed-use development. Given the location of the Planning Area within an urbanized portion of the Monterey Bay Area, the potential for this type of indirect growth does not exist. Further, while the availability of new jobs around the city may invite more people to move to Monterey or adjacent jurisdictions, the increase of jobs in the city could reduce the need for residents to commute farther for work and encourage more people to take transit instead of driving alone, consistent with overarching regional and State objectives for sustainable development and reduction of GHG emissions and VMT.

5.2 Cumulative Impacts

CEQA requires that an EIR examine cumulative impacts. As discussed in CEQA Guidelines Section 15130(a)(1), a cumulative impact "consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." Furthermore, the analysis of cumulative impacts need not provide the level of detail required of the analysis of impacts from the project itself but shall "reflect the severity of the impacts and their likelihood of occurrence." (CEQA Guidelines Section 15130(b)).

In order to assess cumulative impacts, an EIR must analyze either a list of past, present, and probable future projects or a summary of projections contained in an adopted general plan or related planning document. Because it is a long-range, programmatic plan for an entire city and surrounding area, the Proposed Plan represents the cumulative development scenario for the reasonably foreseeable future in the Planning Area, and this analysis uses the summary projections of the Proposed Plan. This future scenario incorporates the likely effects of surrounding regional growth.

Several analyses presented in Chapter 3: Environmental Settings and Impacts represent cumulative analyses of issues through the Proposed Plan horizon year of 2040 because they combine the anticipated effects of the Proposed Plan with anticipated effects of regional growth and development. By their nature, the air quality, transportation, noise, energy and greenhouse gas emissions, and climate change analyses presented in Chapter 3 represent a cumulative analysis, because the effects specific to the Proposed Plan cannot reasonably be differentiated from the broader effects of regional growth and development. Thus, analyses for these topics reflect not just growth in the Planning Area, but growth elsewhere in the region as well. The cumulative conclusions are summarized there, and where applicable, significant unavoidable impacts are listed in Section 5.3, Significant and Unavoidable Impacts. Other cumulative impacts are identified below.

AESTHETICS

The cumulative geographic context for aesthetics is the Planning Area as well as view corridors, view sheds, or scenic resources in the immediate vicinity and visible from the Planning Area.

The scenic resources in the Planning Area and immediate vicinity are the views of the coastline and the central ridge of wooded hills that define the local scenic environment. A significant cumulative impact would result if development facilitated in and adjacent to the Planning Area in combination with other development in the vicinity blocked these views. The 2005 General Plan Urban Design

Element includes numerous policies intended to preserve and enhance scenic resources within the Planning Area. Moreover, there are policies and standards found in various specific plans, the local coastal plan, and neighborhood plans designed to preserve scenic vistas from potential development in the Planning Area. Therefore, foreseeable development in these areas is not likely to result in structures tall enough to block scenic views and vistas. New development within the Planning Area would primarily be focused into the previously developed areas, although the 50-acre MPUSD site within the Highway 68 Area Plan boundary is vacant. Monterey County's Sixth Cycle Housing Element identifies the capacity for 1,324 new homes on four sites immediately south of the Highway 68 Area Plan boundary and southeast of the 50-acre MPUSD site in unincorporated Monterey County. These County sites are physically removed from potential development sites within the Planning Area, and implementation of proposed Housing Element Program 1-E would involve standards to integrate the new housing on the MPUSD site in a context sensitive manner. Therefore, in combination with 2005 Urban Design Element policies implementation of Program 1-E would not substantially degrade scenic vistas along Highway 68 and associated impacts would be less than significant. Overall, with implementation of General Plan policies and existing City regulations substantial adverse effects on scenic vistas and resources in and around the Planning Area would be minimized to the extent practicable and associated impacts would be less than significant.

As described above, Highway 1 is a State-designated Scenic Highway from Marina State Beach to Carmel and Point Lobos Nature Reserve, and a segment of Highway 68 (Monterey-Salinas Highway) from Highway 1 to the Fort Ord National Monument and River Road Scenic Drive is an eligible State scenic highway. The Proposed Plan would allow development adjacent to these segments as they pass through the Planning Area, and a significant impact would result if scenic resources within the segments would be substantially damaged. The General Plan establishes a framework of policies to preserve and protect scenic resources along these highway segments. Goal h of the Urban Design Element requires the protection and enhancement of scenic entrances within the city. Additionally, the City Code establishes standards and procedures that would guide development within the designated and eligible highway segments, including Chapter 31 which establishes standards to control the size, type and location of signs, and Chapter 37, which establishes standards and procedures for the preservation of trees which contribute to the natural scenic beauty and character of the Planning Area. Compliance with these existing regulations and General Plan policies would minimize the potential for cumulative impacts to scenic resources with State-designated and eligible Scenic Highways. Associated impacts would be less than significant.

Implementation of the Proposed Plan in combination with other development in the vicinity would introduce new sources of light within the cumulative geographic context, including light spillover from buildings, outdoor security lights, lighted signs, streetlights, and vehicle headlights, in addition to glare produced by reflective surfaces and unshielded equipment. A significant impact would occur if these new sources of light had an adverse impact on day and nighttime views in the area. Implementation of the Proposed Plan would result in significant new development in the Highway 68 Plan Area and the Fort Ord/Ryan Ranch opportunity area, which contain large undeveloped areas under existing conditions, thereby increasing light and glare in and around these locations. Other development pursuant to the Proposed Plan would generally be in areas with urban development where sources of light and glare exist already. General Plan Policy f.9 would apply to all development associated with implementation of the Proposed Plan This policy seeks to discourage high levels of ambient light and maintain night skies where stars can be seen. Projects

are reviewed for consistency with this policy if the project requires Architectural Review. Additionally, development located in the Multifamily Residential Overlay District would be required to adhere to the applicable standards of Section 38-99.7 (G),), which requires new sources of light to be directed downward to avoid spillage onto adjacent properties and that an exterior lighting plan be prepared; as well as Section 38-111(D), which establishes standards for the use of glass and building materials to minimize light and glare. The City Code also contains lighting standards for parking facilities. Additionally, the 2022 California Green Building Standards Code, adopted as Chapter 9 of the City Code, includes a nonresidential mandatory light pollution reduction measure that establishes maximum allowable light and glare standards for outdoor lighting systems for new nonresidential projects (2022 California Green Building Standards Code, 5.106.8 Light pollution reduction). Compliance with these existing regulations and General Plan policies would ensure that cumulative impacts associated with increased light and glare would be less than significant.

Development under the Proposed Plan would be consistent with applicable policies and standards for new development as well as regulations governing scenic quality in the urbanized area, including the City Code and General Plan. Impacts from the Proposed Plan, in conjunction with other plans and projects in the region, that could conflict with existing zoning or other regulations which govern scenic quality are not cumulative in nature.

AGRICULTURAL RESOURCES

The cumulative geographic context for agriculture is the Planning Area. While the Planning Area contains historical grazing land, it does not include any prime farmland, farmland of statewide importance, or Williamson Act contracts. As a result, there would be no significant cumulative impacts related to conflicts with existing zoning for agricultural use, Williamson Act contracts, or conversion of Farmland to non-agricultural use. However, there is a 150-acre area of land in the southeast of the Planning Area classified as Grazing Land under the FMMP. Within this area classified by the FMMP as Grazing Land, the Highway 68 Area Plan identifies a 50-acre site as a potential location for housing development. While the development of housing on the 50-acre site would be consistent with the Highway 68 Area Plan and while there are no active agricultural activities on the site today, this would result in the conversion of Farmland classified by the FMMP to non-agricultural use, which would represent a permanent loss of such land. As such, the Proposed Plan's contribution to cumulative agricultural resources impacts would be cumulatively considerable.

AIR QUALITY

As described in the Significance Criteria in Section 3.3, consistency with MBARD's 2016 AQMP means that the Proposed Plan does not conflict with or obstruct implementation of the AQMP (i.e., disrupting or hindering control measures) or otherwise being inconsistent with the AQMP's primary purpose of achieving attainment status for ozone (i.e., by emitting 137 or more of ROG or NOx). In addition, the Proposed Plan should be consistent with AMBAG's regional projections.

The primary purpose of the AQMP is to achieve attainment status for ozone for the NCCAB. The Proposed Plan's land use framework and transportation strategies would support regional attainment of the ozone CAAQS and NAAQS through policies that would lessen mobile-source

emissions by reducing VMT, encouraging transit, enhancing bicycle and pedestrian infrastructure, and supporting sustainable land use patterns with increased density and mixed-use development. Therefore, the Proposed Plan would not disrupt or hinder implementation of the AQMP and would support the applicable control measures to meet the plan's primary goals. Consequently, this impact would not be cumulatively considerable.

Development under the Proposed Plan would include area-wide sources of criteria air pollutant emissions and may also result in the installation or operation of new stationary sources of TACs (e.g., emergency generators). Additionally, traffic congestion is projected to increase as indicated by increased volume to capacity rations seen in VMT modeling for the Proposed Plan (as discussed in Section 3.13: Transportation) and could therefore exacerbate existing cumulative health risks. Both new and existing sensitive receptors near these stationary sources and roadways may therefore be exposed to substantial levels of criteria air pollutants or CO hot spots in addition to significant health risks from TACs. Although it is unknown what specific sources would be installed or where they would operate, all new stationary sources would be subject to the permit authority of the MBARD, and review of new sources are subject to BACT requirements. These regulatory mechanisms would ensure that cancer and health hazard impacts from stationary sources developed under the future projects would be less than significant. However, they may not be sufficient to address PM impacts if the source results in significant PM concentrations, especially given the existing nonattainment status for PM_{10} and the expected increase in PM emissions due to the Proposed Plan. As such, these impacts are conservatively assumed to be considerable.

BIOLOGICAL RESOURCES

Development associated with the Proposed Plan through the horizon year of 2031 could contribute to the loss of natural lands in the Planning Area, with potential effects on special-status species, sensitive natural communities, federally protected wetlands, wildlife and fish movement corridors, and invasive species. The extent of existing development and human activity within urbanized portions of the Planning Area limits the potential for special-status species occurrence. Areas that may provide habitat for special-status species are located primarily in the open space and undeveloped habitat types, including in Monterey pine forest, oak woodland, grasslands, coastal dune scrubs, and chaparral areas. Thus, future development within the Planning Area has the potential to have significant impacts on biological resources. In particular, there are several special-status species known to occur throughout the Planning Area that could be impacted by housing development. Impacts would be further reduced through Mitigation Measure BIO-1, which would require site assessments by a qualified professional for development applications that may adversely affect sensitive biological resources. Mitigation Measure BIO-2 would require implementation of a worker environmental awareness training program to train construction staff on the needs of protecting sensitive biological resources and the ramifications for not complying with applicable laws. Mitigation Measure BIO-3 would require the installation of temporary flagging or barrier fencing to protect sensitive biological resources adjacent to the work area. Further, Mitigation Measures BIO-4 through BIO-12 outline additional construction requirements to ensure the protection of special-status plant and animal species.

Development in the Planning Area would also be required to adhere to the existing Preservation of Trees and Shrubs Ordinance (Chapter 37). The ordinance is intended to assure preservation of trees and replacement of trees when removal is unavoidable. Compliance with the City's tree ordinance

would help ensure that the impacts of the Proposed Plan on any local policies protecting biological resources would also be less than significant. Additionally, development resulting from the Proposed Plan, as well as future development projects that could occur within the Planning Area or in the vicinity of the Planning Area, would be subject to the requirements of biological resource protection laws, including FESA, CESA, MBTA, and the California Fish and Game Code, as well as protection policies and provisions in the City's General Plan and City Code. With implementation of Mitigation Measures BIO-1 through BIO-12 and compliance with federal, state, and local regulations, the Proposed Plan's contribution to cumulative biological resources impacts would be less than cumulatively considerable.

CULTURAL, TRIBAL, AND HISTORIC RESOURCES

The cumulative geographic context for cultural, historic, and tribal cultural resources is the City of Monterey. If the Proposed Plan, in combination with other past, present, and reasonably foreseeable projects in Monterey, would result in the loss of or adverse changes to multiple historic or cultural resources a significant cumulative impact could result. However, as described in Section 3.5 of this Draft EIR, the City of Monterey General Plan and the City Code provide a framework for the preservation of cultural and historic resources. At the time development or redevelopment projects are proposed, any project-level CEQA document would need to identify potential impacts on known or potential historic sites and structures. Such project-level review in combination with the Mitigation Measure CUL-1, which requires that all proposed development within the Planning Area undergo additional investigation to determine the project-level impact on the built environment's historical resources, would ensure that the Proposed Plan's incremental contribution to this impact would not be cumulatively considerable.

There are known prehistoric and historic archaeological resources in and around the City of Monterey. The Planning Area has a high potential for encountering deposits associated with known resources or as-yet undocumented resources. Anticipated development projects under the Proposed Plan may involve grading, excavation, or other ground-disturbing activities, which could have a cumulative impact on unknown archaeological resources. Mitigation Measure CUL-4 would ensure that developers in the Planning Area receive cultural resources awareness training and halt work if cultural resources are encountered. Further, any adverse effects to archaeological resources shall be mitigated as specified by PRC Section 21083.2 Thus, compliance with mitigation measures and General Plan policies, as well as applicable local, State, and federal laws, would ensure that the Proposed Plan's contribution to this impact would not be cumulatively considerable.

All development projects allowed under the Proposed Plan would be required to comply with State laws pertaining to the discovery of human remains and disposition of Native American burials; therefore, the Proposed Plan would result in a less than cumulatively considerable contribution to impacts related to human burials. There are known Native American tribal cultural resources within the Planning Area, and development projects allowed under the Proposed Plan may result in the identification of unrecorded tribal cultural resources given the historic occupation of the area. Future projects that would not otherwise qualify for an exemption under CEQA would be required to comply with the provisions of AB 52 to incorporate tribal consultation into the CEQA process. Therefore, the Proposed Plan's contribution to this impact would not be cumulatively considerable.

ENERGY AND GHG EMISSIONS

Construction and operation of the Proposed Plan would result in the consumption of energy resources. However, as discussed in Section 3.6 under Impact 3.6-3, implementation of the Proposed Plan would result in direct and indirect energy conservation, such as encouraging green building techniques, water conservation, and waste reduction, would promote greater energy efficiency in municipal and community operations and development. Furthermore, the Proposed Plan contains a land-use strategy that actively promotes infill mixed-use development where appropriate, which would result in greater energy efficiency overall for Planning Area residents and operations. In addition, development under the Proposed Plan would be subject to increasingly robust regulations to meet the State's renewable energy mandates and would be required to comply with Title 24 standards and CALGreen requirements. As discussed in Impact 3.6-4, the Proposed Plan would thus support and reflect the increasingly stringent State and local goals and regulations that seek to increase energy efficiency, reduce energy consumption, and prioritize renewable energy – reinforcing that the Proposed Plan would not result in a cumulatively considerable impact with respect to wasteful, inefficient, or unnecessary consumption of energy resources.

By their nature, the greenhouse gas emissions impacts analyzed in Chapter 3 represent a cumulative analysis because the effects specific to the Proposed Plan cannot reasonably be differentiated from the broader effects of regional growth and development. Thus, analyses for these topics reflect not just growth in the Planning Area, but growth elsewhere in the region as well. Please see Section 3.6, Impact Analysis, for a discussion of cumulative impacts associated with GHG emissions. Even after implementation of all feasible mitigation measures, impacts would remain significant and unavoidable.

GEOLOGY, SOILS, AND SEISMICITY

The cumulative geographic context for geology and soils consists of development sites within the Planning Area and nearby properties in the immediate vicinity. Although regional geographies can be similar, in general, geology and soils impacts do not typically combine such that a larger geographic context would be involved. Depending on subsurface conditions, slopes, and other factors, each cumulative project would require different levels of grading, cut-and-fill, and excavation. In addition, each cumulative project would be required to comply with the General Plan, City Code, Proposed Plan, and California Building Standards Code requirements. The standards presented in these documents require that a site-specific geotechnical investigation be prepared which would include design recommendations to reduce each cumulative project's impacts. Similar seismic safety standards would apply to the cumulative projects. For these reasons, project building under the Proposed Plan, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on geology and soils. Therefore, no significant cumulative impact exists in the geographic context for geology, soils, and seismicity.

All significant paleontological resources are unique and nonrenewable resources. Unlike archaeological resources, which are site-specific, paleontological resources can occur throughout a sensitive geologic unit, regardless of location. Therefore, the geographic context for paleontological resources encompasses the complete extent of geologic units with high or undetermined paleontological sensitivity that underlie the Planning Area. As noted in Section 3.7, there are some

geologic units in the Planning Area considered to have high paleontological sensitivity. This future development, in combination with other foreseeable developments in the identified geographic context, has the potential to encounter and damage or destroy previously unknown paleontological resources during both construction and operation. However, Public Resources Code Section 5097.5 specifies the procedures to be followed in the event of the unexpected discovery of paleontological resources. In addition, mitigation measures GEO-1 and GEO-2 require worker awareness training and to halt construction activity in case of finding paleontological resources. Therefore, the contribution of the Proposed Plan to the cumulative impact on paleontological resources would not be cumulatively considerable.

HAZARDS AND HAZARDOUS MATERIALS

The cumulative geographic context for hazards and hazardous materials consists of sites within the Planning Area and nearby properties in the immediate vicinity. In general, only projects occurring in the immediate vicinity to the Planning Area are considered due to the limited potential impact area associated with the release of hazardous materials into the environment. Similar to sites within the Planning Area, reasonably foreseeable projects in the Proposed Plan's surroundings could result in construction impacts related to the routine transport, disposal, or handling of hazardous materials; intermittent use and transport of petroleum-based lubricants, solvents, and fuels; and transport of affected soil to and from sites. However, the handling and transportation of hazardous materials by all projects (including projects within the Planning Area) would be regulated under federal, State and local authority and no significant cumulative impact would occur. Furthermore, hazardous waste generated during construction of any project would be collected, properly characterized for disposal, and transported in compliance with regulations such as the ones described under the *Regulatory Setting*. In addition, impacted sites under development would undergo remediation under oversight of applicable state and local agencies, effectively reducing the amount of contamination found in the cumulative project area. Hazardous materials are strictly regulated by local, state, and federal laws. Specifically, these laws are designed to ensure that hazardous materials do not result in a gradual increase in toxins in the environment. For each of the reasonably foreseeable projects under consideration, various project-specific measures (such as the ones identified for the Proposed Plan) would be implemented as a condition of development approval to mitigate risks associated with exposure to hazardous materials. For these reasons, the Proposed Plan, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative hazards or hazardous materials impact.

HYDROLOGY, DRAINAGE, AND WATER QUALITY

The context for surface hydrology and water quality is the Central Coast Hydrologic Region. The context for groundwater hydrology is the three groundwater basins in Monterey County. Thus, overall, the cumulative geographic context for cumulative hydrology and water quality impacts is geographic and a function of whether impacts could affect surface water features/watersheds, the City's storm drainage system, or groundwater resources, each of which has its own physical boundary. Future development in the geographic context for hydrology and water quality would be required to comply with regulations and policies including NPDES Construction General Permit adopted by the SWRCB; Central Coast RWQCB's NPDES permit and Waste Discharge Requirements for MS4 discharges; Sustainable Groundwater Management Act; and local municipal codes. For these reasons, under the Proposed Plan, in combination with other past, present, and

reasonably foreseeable future projects, would not result in a significant cumulative impact on hydrology and water quality.

Potential growth in the Monterey Bay watershed would likely not degrade water quality as the Proposed Plan primarily consists of development into key areas of the city. Outside of these areas, the existing land use pattern would be preserved, with some infill development anticipated on vacant sites in residential neighborhoods. General Plan policies would also ensure that development protects and restores riparian habitat and ensure natural channel processes in the watershed. All new developments are required to handle stormwater in a manner that ensures that flood flows will not increase or be redirected to other areas. Similar to the Proposed Plan, all future development in the geographic context for hydrology and water quality would be required to adhere to Monterey County General Plan policies and local municipal codes related to protecting water resources. Therefore, the contribution of the Proposed Plan to the cumulative impact on hydrology and water quality would not be cumulatively considerable.

LAND USE, POPULATION, AND HOUSING

The cumulative context for land use is the City of Monterey. The cumulative geographic context for population and housing is the Monterey Bay Area. Projects that could have the effect of physically dividing an established community—such as a major new road, highway, or similar infrastructure—tend to have a singular rather than cumulative impact. However, a significant impact could occur if new development in the Planning Area in combination with foreseeable development in the city would physically divide an established community. The Proposed Plan does not involve the construction of a linear feature or other barrier as described above and would not remove any means of access or impact mobility. Implementation of the Proposed Plan would in fact improve connectivity in the Planning Area through implementation of proposed Circulation and Land Use Element policies that foster walkable, mixed-use areas and increased use of bicycle, transit, and active transportation. Therefore, the cumulative impact of the Proposed Plan on the division of an existing community would be less than significant.

Impacts from plans and projects in the region that could conflict with existing plans, including the City's adopted specific plans, are not cumulative in nature. The Proposed Plan is consistent with the General Plan's and specific plan's goals for the Planning Area and includes provisions to amend the City Code in order to ensure consistency. Therefore, the contribution of the Proposed Plan to the cumulative impact on land use and planning would not be cumulatively considerable.

NOISE AND VIBRATION

The cumulative geographic context for noise and vibration is the Planning Area and the immediate vicinity. The noise analysis represents cumulative analyses of issues through the Proposed Plan because it combines the anticipated effects of the Proposed Plan with anticipated effects of growth and development within the City and the Monterey Bay region through 2031. By its nature, the noise analysis represents a cumulative analysis, because it accounts for the contribution that citywide and regional growth will make to the noise environment within the Planning Area through modeling that factors in road and construction traffic generated from projects throughout the wider region. Consequently, the impact significance conclusions discussed in Section 3.11 are representative of cumulative impacts.

The Proposed Plan would result in both short-term and long-term changes to the existing noise environment in the Planning Area. Construction activities, including traffic, demolition, and reconstruction, would generate ambient and groundborne noise. However, there are a variety of policies, codes, and regulations in place to prevent substantially adverse impacts, particularly to sensitive land uses. The General Plan Noise Element and Section 38-112.2 of the City Code establish noise/land use compatibility standards as well as exterior noise standards. In addition, policies would limit the hours of noise generating construction activities as a condition of project approval. All new construction would be required to comply with noise restrictions which regulate the time and intensity of construction in the City Code as well as requirements from the California Building Code and CalGreen Code.

Together, these policies, regulations, and noise level restrictions would ensure that cumulative adverse noise and vibration impacts associated with construction be attenuated to a less than significant impact. The Proposed Plan would result in no impact from airport noise, and therefore, its impact on noise and vibration would result in a less than cumulatively considerable impact.

PUBLIC SERVICES AND RECREATION

The geographic context for all police and park services is the City of Monterey and the geographic context for fire services is the Monterey Fire Department (MFD) service area, which includes the City of Monterey, the U.S. Army Defense Language Institute Foreign Language Center at the Presidio of Monterey, the Naval Support Activity Monterey Naval Postgraduate School and their housing located at La Mesa Village, as well as the cities of Sand City, Carmel-by-the-Sea, Pacific Grove, and the Monterey Peninsula Airport. The geographic context for school services is the Monterey Peninsula Unified School District (MPUSD) service area which includes the City of Marina, Sand City, Seaside, and Del Rey Oaks, in addition to City of Monterey.

The Monterey Police Department (MPD) has not established service ratios or response time goals at this time. However, the increased local population generated by implementation of the Proposed Plan may increase the need for police services. However, MPD has existing plans in place to increase staffing over the next five to ten years from 53 to 60 officers and to acquire two additional patrol vehicles. In addition, MPD and MFD have plans to develop a new joint public safety facility, which would be sufficient to accommodate increased MPD staffing and equipment needed to accommodate the increase in calls for service anticipated with buildout of the Proposed Plan. Therefore, no additional new or physically altered police facilities over and above those already planned would be required as a result of the Proposed Plan. Cumulative impacts would be less than significant.

The increased local projected population would likely result in a subsequent increase in fire and emergency medical service calls to the service area compared to existing conditions. Despite a steady increase in calls for service since 2016, MFD does not have plans to increase staffing or equipment levels over the next eight years. Current staffing and equipment levels provide an adequate number of staffing for fires, medical, or rescue situations and would be sufficient to handle the potential increase in incidents in infill areas with buildout of the Proposed Plan.[2] However, implementation of Mitigation Measure PF-1 is recommended which would reduce the potential

[2] G. Panholzer, personal communication, July 26, 2023.

environmental impacts associated with construction of the new public safety facility to the maximum extent practicable. Cumulative impacts would be less than significant.

Public schools are provided by school districts to areas within their jurisdictions. While districts may have cross jurisdictional boundaries, school services are still provided at the local, rather than regional level. Project applicants for development under the Proposed Plan would be required to comply with SB 50, which mandates statutory school facilities fees for residential and commercial developments. Compliance with SB 50 would financially offset impacts on the MPUSD capacity and would provide funding for potential future school facility development needs associated with the projected population increase. However, the District stipulated that the construction of 5,800 new units would require MPUSD to expand existing facilities and potentially alter current lease agreements with private and/or charter schools in order to meet the projected increased enrollment. Therefore, the MPUSD anticipates that there would be a need for new/expanded school facilities in the district. Even so, construction of new school facilities would be subject to separate project-level CEQA review at the time the design is proposed in order to identify and mitigate project-specific impacts as appropriate. Future facilities will be able to tier from this EIR to identify and mitigate site specific impacts if and when design of those facilities is complete. Therefore, this cumulative impact would be less than significant.

Several agencies provide park and recreation services in the region, including counties, cities, and special districts. Given the extensive amount of parkland in Monterey, the service ratio far exceeds the maximum defined in State law[3] and therefore no ratio requiring new parkland has been set. Further, considering Monterey's current level of service, quality, and type of facilities, as well as maintenance of a relatively stable population over time, the Parks Master Plan determined that the City does not have a need to develop more parks. The City of Monterey has existing plans for considerations of upgrading aging facilities, however, detailed design of the new park facilities has not yet been completed, so site specific impacts cannot be evaluated at this time. Even though the City has determined that it does not have a need to develop more parks to service the local population, new parks could possibly be added to the MPUSD 50-acre site and the Ryan Ranch/Fort Ord Specific Plan area. The environmental impacts related to traffic, noise, air quality, and GHG emissions during construction and operation of park facilities have been considered throughout this EIR. Detailed design of any potential facility expansion or construction has not yet been considered, so site specific impacts cannot be evaluated at this time. However, construction of new park facilities would be subject to separate project-level CEQA review at the time the design is proposed in order to identify and mitigate project-specific impacts as appropriate.

Therefore, the contribution of the Proposed Plan to the cumulative impact on public services and recreation would not be cumulatively considerable.

TRANSPORTATION

The geographic context for cumulative impacts related to transportation is the roadway network within the Planning Area and the regional roadway network with connections to the Planning Area. Buildout of the Proposed Plan would result in increased development in the Planning Area and

[3] Under the Proposed Plan, the City would still maintain a total park service ratio of 19 acres per 1,000 residents. Per the Quimby Act, the State defined minimum service ratio is five acres per 1,000 residents.

would generate additional vehicle trips on the local and regional roadway network. The General Plan Circulation Element includes policies that seek to improve mode share and reduce the impact of new traffic on alternative transportation modes. Development under the Proposed Plan would be consistent with such policies and regulations by increasing housing opportunities in already developed areas which is an integral part of VMT reduction and encouraging transportation alternatives, such as walking and biking. However, as outlined in Section 3.13, employment-based land uses have a potentially significant impact under the Proposed Plan and mitigation is required. Although the implementation of Mitigation Measure TRANS-1 can be expected to reduce the total VMT per service population generated by typical uses in the Planning Area and reduce the magnitude of the impact, their effectiveness cannot be accurately estimated for the expected developments in the Planning Area, because the detailed characteristics of these future development and/or the specific strategies implemented by these future developments cannot be known at this time. Thus, this EIR conservatively assumes that these impacts would be cumulatively considerable.

UTILITIES AND SERVICE SYSTEMS

Future development anticipated by the Proposed Plan would generate additional demand for water and wastewater, stormwater, solid waste services, power, and telecommunications services. The cumulative effects on water quality and groundwater are discussed above in the Hydrology and Water Quality section; this evaluation focuses on impacts on the water supply and treatment and distribution systems. Water to the Planning Area is supplied by California American Water (Cal Am) and managed by the Monterey Peninsula Water Management District (MPWMD). The MPWSP Ocean Desalination Plant is anticipated to provide a drought-proof supply. With the addition of these supplies, it is expected that supply will exceed demand during normal years through 2050. The new supply sources will help provide a secure and reliable water supply for the Monterey Peninsula and reduce the need for stringent demand reduction measures to close the gap between supply and demand. While a supply deficit is anticipated until new supplies are available, after new supplies are available, there will be adequate supply to serve projected demand (including projected demands for RHNA housing). Until the new supplies come online, Cal Am will use its Water Shortage Contingency Plan (WSCP) measures to maintain demand below the available supply. Compliance with State regulations mandating water conservation measures discussed in Chapter 3.14 of this EIR, including the Water Conservation Act of 2009 (SB X7-7), the California Green Building Standards Code (CALGreen) (Part 11, Title 24), the California Building Standards Code (24 California Code of Regulations), Assembly Bill (AB) 1668, and Senate Bill (SB) 606 would reduce demand from new development to the extent practicable, and implementation of proposed Housing Element Program 2-J, through which the City will prioritize available water supply for affordable housing projects, and Program 2-K through which the City will continue to work with Cal Am and MPWMD to expand sources of supply will also help to minimize impacts associated with inadequate water supply. However, as it cannot be said with certainty that there will be adequate water supply to serve the cumulative projected need for the Cal Am service area including the Planning Area in 2031 even in the event of a multiple dry year scenario during the planning period, a significant and unavoidable impact would result from the implementation of the Proposed Plan in combination with other general plans and housing elements in the Cal Am service area and the contribution of the Proposed Plan would be cumulatively considerable.

With regards to wastewater treatment and distribution, the Planning Area is served by Monterey One Water Regional Treatment Plant (RTP) which serves the following jurisdictions: Del Rey Oaks, Monterey, Pacific Grove, Salinas, Sand City, and Seaside; the Castroville Community Services District; Marina Coast Water District; Boronda County Sanitation District; and Monterey County. As detailed in Section 3.14, the agency's average daily dry weather flows have consistently been below the permitted dry weather treatment capacity. The Monterey One Water Regional Treatment Plant experiences an average daily flow of 18.5 million gallons per day (MGD) and has the capacity to treat and discharge 29.6 MGD. The estimated flow with buildout of the Proposed Plan in 2031 is 0.93 MGD, which represents 3.14 percent of the 29.6 MGD total available capacity. Therefore, the Regional Treatment Plant has adequate capacity to serve the 2031 population service area and the impact is not cumulatively considerable.

Storm drainage facilities within Monterey County are operated and maintained by the Monterey County Water Resources Agency. The cities of Carmel-by-the-Sea, Pacific Grove, Monterey, Sand City, and Seaside maintain the urban runoff system and natural drainage courses for their respective jurisdictions. In the City of Monterey, stormwater drains flow directly to local creeks, estuaries, and to Monterey Bay without treatment. Future developments within the Planning Area must meet the requirements of the Monterey Regional Storm Water Management Program (MRSWMP), City of Monterey NPDES Phase II permit with the California State Water Board, the City Code, and other applicable local, state, and federal requirements. With compliance to these regulations, impacts would not be cumulatively considerable.

Solid waste from Monterey is primarily sorted at the Monterey Peninsula Landfill (MPL) and Materials Recovery Facility (MRF) in unincorporated Salinas, operated by ReGen Monterey and any waste not recycled or composted is disposed. ReGen Monterey also processes commercial and residential organics at the MPL and MRF. As demonstrated in Section 3.14, the Proposed Plan is estimated to result in a net increase in solid waste generation of approximately 82,643 tons per year, or 226.4 tons per day. The annual solid waste generated by the Proposed Plan would be approximately 0.17 percent of the permitted remaining capacity of the landfill (48.5 million tons) and the daily solid waste generated by the Proposed Plan would be approximately 6.5 percent of the permitted daily capacity of the landfill (3,500 tons). The Proposed Plan would not be a substantial contributor to the City's solid waste at the Monterey Peninsula Landfill. Therefore, the Proposed Plan's contribution to this potentially significant cumulative impact would not be cumulatively considerable.

Existing overhead and underground electrical lines extend throughout the Planning Area and were originally installed to serve the variety of existing land uses. PG&E and Central Coast Community Energy (3CE) is expected to be able to meet overall demand for electricity and natural gas for all its customers, including Monterey County, in the future.[4] PG&E will continue to maintain and upgrade its electrical and natural gas distribution systems as needed based on future demand trends. For electricity, this includes local and regional distribution lines, undergrounding or poles where needed, and transformer stations. For natural gas, this includes local and regional pipelines

[4] Pacific Gas & Electric Corporation (PG&E), 2023. 2023 General Rate Case. Available: https://www.pge.com/en_US/about-pge/company-information/regulation/general-rate-case/grc.page.

and transmission stations. Therefore, the impact of the Proposed Plan on power infrastructure would not be cumulatively considerable.

WILDFIRE

The cumulative geographic context for wildfire consists of sites within the Planning Area and nearby properties in the immediate vicinity. The Proposed Plan would generate an increase in daily trips as detailed in Section 3.13 of this EIR, which may have an impact on emergency access and may conflict with the County's adopted emergency response and evacuation plans. However, any development must be constructed in accordance with federal, state, regional, and local requirements, which are intended to ensure the safety of county residents and structures to the extent feasible. Compliance with these standard regulations would be consistent with the City's Emergency Operations Plan and Monterey County's Emergency Operations Plan. Further, implementation of the proposed Safety Element, which includes policies associated with wildfire risk and evacuation would further reduce risks. Even so, the highway onramps are part of the State transportation network, under the jurisdiction of Caltrans. Caltrans does not currently have a plan or funding in place to temporarily increase capacity at constrained locations. Thus, implementation of the Proposed Plan may impair an emergency response or emergency evacuation plan there would be a cumulatively considerable impact.

Additionally, while the projected population in the Planning Area would increase the number of people potentially exposed to impacts from wildfire, the Proposed Plan would not induce substantial unplanned population growth in the Planning Area. New development would be subject to the California Fire Code, which includes safety measures to minimize the threat of fire. A Fire Protection Plan would be required for construction and development in areas designated as Wildland-Urban Interface (WUI), and/or Moderate, High, or Very High Fire Hazard Severity Zone per the City's Fire Code (Chapter 13, Article 1). Construction would also be required to meet CBC requirements, including CCR Title 24, Part 2, which includes specific requirements related to exterior wildfire exposure. The Board of Forestry, via CCR Title 14, sets forth the minimum development standards for emergency access, fuel modification, setback, signage, and water supply, which help prevent loss of structures or life by reducing wildfire hazards. Therefore, compliance with local and state regulations and plans pertaining to wildfire would help reduce impacts regionally; the Proposed Plan's contribution to wildfire risks is not considered cumulatively considerable.

5.3 Significant and Unavoidable Impacts

Significant unavoidable impacts are those that cannot be mitigated to a level that is less than significant. According to CEQA Guidelines 15126.2(b), an EIR must discuss any significant environmental impacts that cannot be avoided under full implementation of the proposed program, including those that can be mitigated, but not to a less than significant level. The analysis in Chapter 3 determined that the Proposed Plan would result in significant impacts related to agricultural resources, air quality, GHG emissions, transportation, utilities, and wildfire and that, even with implementation of mitigation measures, would remain significant and unavoidable. These impacts are summarized below:

AGRICULTURAL RESOURCES

The City of Monterey is located in an urbanized part of Monterey County and there are no active agricultural uses within the Planning Area. However, there is a 150-acre area of land in the southeast of the Planning Area classified as Grazing Land under the FMMP. Within this area classified by the FMMP as Grazing Land, the Highway 68 Area Plan identifies a 50-acre site as a potential location for housing development. While the development of housing on the 50-acre site would be consistent with the Highway 68 Area Plan and while there are no active agricultural activities on the site today, this would result in the conversion of Farmland classified by the FMMP to non-agricultural use, which is a potentially significant impact. Even with Mitigation Measure AG-1 which requires the project applicant to offset the loss of such lands, farmland is a finite and irreplaceable resource, and therefore not directly mitigable. Beyond limiting the area in which growth is permitted, there are no feasible mitigation measures for agricultural land conversion that would also fulfill the objectives of and implement the Proposed Plan. The impact would remain significant and unavoidable.

AIR QUALITY

Under the Proposed Plan, it is estimated that energy-source emissions of ROG and CO and area-source emissions of PM_{10} and $PM_{2.5}$ may have significant impacts. MM-AQ-1 would require projects that exceed MBARD's project emissions thresholds to incorporate project-specific mitigation measures (as necessary) and address project-level sources of criteria air pollutants. Operational emissions would be reduced by MM-TRANS-1 (see Section 3.13: Transportation), substantially reducing on-road PM emissions, which are the largest source of Proposed Plan PM_{10} and $PM_{2.5}$. However, even with these mitigation measures, individual projects may exceed MBARD's project-level thresholds and cumulatively contribute to the non-attainment of PM_{10} in the NCCAB. Therefore, operational air quality impacts are conservatively assumed to be significant and unavoidable**.**

Further, development under the Proposed Plan would include area-wide sources of criteria air pollutant emissions and may also result in the installation or operation of new stationary sources of TACs (e.g., emergency generators). Additionally, traffic levels are expected to increase due to the Proposed Plan (as discussed in Section 3.13: Transportation) and would therefore exacerbate existing cumulative health risks. Both new and existing sensitive receptors near these stationary sources and roadways may therefore be exposed to substantial levels of criteria air pollutants or CO hot spots in addition to significant health risks from TACs. Although it is unknown what specific sources would be installed or where they would operate, all new stationary sources would be subject to the permit authority of MBARD, and review of new sources are subject to BACT requirements. These regulatory mechanisms would ensure that cancer and health hazard impacts from stationary sources developed under the future projects would be less than significant. However, they may not be sufficient to address PM impacts if the source results in significant PM concentrations, especially given the existing nonattainment status for PM_{10} and the expected increase in PM emissions due to the Proposed Plan. As such, these impacts are significant and unavoidable.

ENERGY, GREENHOUSE GAS EMISSIONS, AND CLIMATE CHANGE

GHG emissions from operation of the Proposed Plan would result in a net increase compared to existing conditions, primarily attributed to mobile sources. Despite this increase, the Proposed Plan's policies represent a suite of land use and building strategies that would reduce emissions from area sources, building energy consumption, water consumption, and waste generation. However, there is no guarantee that all voluntary sustainability features and practices will be incorporated into the designs and construction of all future developments to reach the maximum reductions possible. Lastly, mobile sources make up a large majority of the Proposed Plan's overall emissions as well as the increase in emissions relative to existing conditions. Although the City's direct influence over these emissions is limited, the Proposed Plan incorporates local land use strategies that promote VMT reduction, resulting in a decrease in VMT per capita. Overall, the Proposed Plan includes policies that are designed to reduce GHG impacts, in line with CARB and OPR guidance. Additionally, recommended Mitigation Measure GHG-2 would require the use of construction period best management practices for the control of construction related GHG emissions, while Mitigation Measure GHG-1 would require an update to the City Climate Action Plan to identify and incorporate additional GHG reduction strategies to achieve an additional two percent reduction in emissions to achieve an overall reduction of 40 percent by 2030. Nevertheless, the magnitude of effect of the additional cap measures cannot be known with certainty at this time, and there therefore cannot be assumed to reduce the increase in operational emissions to a less-than-significant level. Therefore, the Proposed Plan would have a significant and unavoidable impact even after implementation of all feasible mitigation.

TRANSPORTATION

As detailed in Section 3.13, employment-based land uses have a potentially significant impact under the Proposed Plan and mitigation is required. Mitigation Measure TRANS-1 would require implementation of commute trip reduction programs for employers in the city with more than 50 employees. Employers can choose from a range of commute-reduction strategies that include ridesharing, discounted transit, bicycling, vanpool, or guaranteed ride home. Although the implementation of Mitigation Measure TRANS-1 can be expected to reduce the total VMT per service population generated by typical uses in the Planning Area and reduce the magnitude of the impact, their effectiveness cannot be accurately estimated for the expected developments in the Planning Area, because the detailed characteristics of these future development and/or the specific strategies implemented by these future developments cannot be known at this time. Thus, this EIR conservatively assumes that the VMT reduction due to implementation of these strategies would not be adequate to reduce the impact to a less than significant level. Therefore, this impact would be significant and unavoidable.

UTILITIES AND SERVICE SYSTEMS

Water service for the majority of the Planning Area is provided by Cal-Am; however, approximately 135 acres of land at Fort Ord is within the MCWD service area. Cal-Am projects there will be sufficient water when new sources come online. However, it cannot be said with certainty that these new sources will be operational in the future as envisioned; thus, impacts on water supply under the Proposed Plan would be significant and unavoidable. Similarly, the reactivation of the MCWD pilot seawater desalination plant could potentially add 300 AFY of additional supply, reactivation

is not within the jurisdiction of the City of Monterey and there is no reasonable plan to reactivate the plant at this time. Further, while Phase 2 of the Pure Water Monterey Expansion Project is anticipated to deliver additional water to the Seaside Basin, the project has not been proven to provide its full projected capacity, particularly during dry years. As such, it cannot be determined at this time whether the impact will in fact be mitigated to a less-than-significant level. Therefore, the impact on water supply is considered significant and unavoidable.

In addition, implementation of the Proposed Plan would also require the construction and extension of public sewer and stormwater conveyance infrastructure to areas not currently served by existing facilities, including the 50-acre MPUSD site in the Highway 68 Plan area and portions of Fort Ord. Construction or expansion of infrastructure to these areas could potentially result in environmental impacts. Construction period impacts are analyzed at a programmatic level throughout this Draft EIR. While construction period impacts related to soil erosion and noise can be mitigated to a less than significant level, construction period impacts related to air quality, biological resources, cultural and tribal cultural resources, energy, and greenhouse gas emission would remain significant and unavoidable even after implementation of all feasible mitigation measures.

WILDFIRE

An evacuation route capacity analysis conducted by Kimley-Horn and Associates for the Proposed Plan concluded that, on a systemwide basis, roadways in the Planning Area would have adequate capacity for an evacuation. Even so, the analysis concluded that under this multi-hazard evacuation scenario, traffic volumes would surpass capacity as traffic approaches Highway 1 at two locations in the network. This is a potentially significant impact; therefore, mitigation measure MM-WF-1, which involves measures to temporarily increase capacity at constrained locations and proactively manage vehicle flow, is required to reduce this impact to a less than significant level. However, the highway onramps are part of the State transportation network, under the jurisdiction of Caltrans. Caltrans does not currently have a plan or funding in place to temporarily increase capacity at constrained locations and implementation of this mitigation measure is beyond the control of the City. As such, it cannot be determined at this time whether the impact will in fact be mitigated to a less than significant level. Therefore, overall, this impact is considered significant and unavoidable.

5.4 Significant Irreversible Environmental Changes

CEQA Guidelines require an EIR to consider whether "uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely" (CEQA Guidelines Section 15126.2(d)). "Nonrenewable resources" refers to the physical features of the natural environment, such as land or waterways, and resources that are renewable only over long time spans, such as soil productivity. A resource commitment is considered irretrievable when the use or consumption of the resource is neither renewable nor recoverable for use by future generations. Irreversible changes and irretrievable commitments of non-renewable resources anticipated by the Proposed Plan include the issues listed below. The Proposed Plan would involve two types of resources: (1) general

industrial resources including fuels and construction materials; and (2) project-specific resources such as land, biotic, and cultural resources at the building sites.

COMMITMENT/CONSUMPTION OF NON-RENEWABLE RESOURCES

Implementation of the Proposed Plan could result in the long-term commitment of various resources to urban development. While the Proposed Plan itself would not directly entitle or result in any new development, it is reasonably foreseeable that the Proposed Plan, which acts as a blueprint for growth and development in the Planning Area over the next 8 years, could result in significant irreversible impacts related to the commitment of non-renewable and/or slowly renewable natural and energy resources, such as:

- **Air Quality:** Increases in vehicle trips resulting from buildout of the Proposed Plan would potentially contribute to long-term degradation of air quality and atmospheric conditions in the region. Technological improvements in automobiles, including the growth of the electric vehicle market share, may lower the rate of air quality degradation in the coming decades. Nonetheless, vehicle trips resulting from implementation of the Proposed Plan could result in the irreversible consumption of nonrenewable energy resources, primarily in the form of fossil fuels, natural gas, and gasoline for non-electric automobiles and long-term degradation of air quality.
- **Water Consumption:** To the extent that the Proposed Plan would accommodate new population and jobs, it would increase the demand for water and place a greater burden on water supply. As such, with the change in demand resulting from the Proposed Plan, the increase would represent an irreversible environmental change, as use of this resource would increase.
- **Energy Sources:** Residential and non-residential developments use electricity, natural gas, and petroleum products for lighting, heating, and other indoor and outdoor power demands, while automobiles use both oil and gas. New development anticipated by the Proposed Plan would result in increased energy use for the operation of new buildings and for transportation. This new development would therefore result in an overall increased use of both renewable and nonrenewable energy resources. To the extent that new development uses more nonrenewable energy sources, this would represent an irreversible environmental change.

- **Agricultural Resources:** The City of Monterey is located in an urbanized part of Monterey County and there are no active agricultural uses within the Planning Area. However, there is a 150-acre area of land in the southeast of the Planning Area classified as Grazing Land under the FMMP. Within this area classified by the FMMP as Grazing Land, the Highway 68 Area Plan identifies a 50-acre site owned by MPUSD as a potential location for housing development. While there are no active agricultural uses at this site, implementation of the Proposed Plan could nonetheless result in the conversion of these lands to non-agricultural uses. This loss may be considered an irreversible environmental change.

CONSTRUCTION-RELATED COMMITMENTS

Irreversible environmental changes could also occur during the course of constructing development projects anticipated by the Proposed Plan. New construction would result in the consumption of building materials (such as lumber, sand and gravel), natural gas, and electricity, water, and petroleum products to process, transport and build with these materials. Though it is possible for construction equipment to be fueled by renewable sources over the course of the Proposed Plan buildout, the timing and availability of these energy sources is unknown. Construction equipment running on fossil fuels would be needed for excavation and the shipping of building materials. Due to the non-renewable or slowly renewable nature of these resources, this represents an irretrievable commitment of resources.

However, development allowed under the Proposed Plan would not necessarily result in the inefficient or wasteful use of resources. Compliance with all applicable building codes, as well as existing and Proposed Plan policies and standard conservation features would ensure that natural resources are conserved to the maximum extent feasible. It is possible that new technologies or systems will emerge, or become more cost-effective or user-friendly, to further reduce the reliance upon non-renewable natural resources. Nonetheless, future activities related to implementation of the Proposed Plan could result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas, and gasoline for automobiles and construction equipment.

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